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CORNELL COUNTRYMAN
October 1984 Volume LXXXII Number 1

ABOUT THE ISSUE
Business—the art of developing a product and distributing it to consumers—is a part of every industry today, including the agriculture industry. In this issue, we take a closer look at Cornell's Department of Agricultural Economics and its "founding father," George Warren. We'll also introduce you to Edward L. Bernays '12, "The Father of Public Relations," who combined his training in horticulture, communications and agricultural economics to communicate his messages to the public.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy and Victor R. Stephen.
The Department of Agricultural Economics is not just in Ithaca anymore. For the past three years, it has also been active in the nation's capital as part of the University's Cornell-In-Washington program, providing a view of public policy from a new, different perspective.

"The ag ec participation is extremely important to the program as a whole," according to Professor Arch Dotson, director of Cornell-In-Washington (CIW). "It's our only environmental policy seminar and it provides an alternative to the various military, foreign and cultural policy classes we offer," he added.

Of the six to eight students from the College of Agriculture and Life Sciences who enroll in CIW each semester, approximately half sign up for the four-credit agricultural economics seminar to supplement their internships. Although the specific topics vary slightly from term to term, a total of six to 14 Cornell students, from all colleges, usually choose the ag economics course.

"To date, we've offered varied natural resource programs and policy analyses as part of CIW's Public Policy Program," said Professor David Allee, BS '53, MS '54, PhD '61, of the agricultural economics department. Allee and Professor Leonard Dworsky of the School of Civil and Environmental Engineering in the College of Engineering are currently the only two Cornell faculty members participating regularly in the ag economics sector of CIW.

Both Allee and Dworsky have done a great deal of congressional lobbying concerning environmental issues, and they take advantage of these activities by maintaining "contacts" who guest lecture and assist students with their theses. Allee, for instance, is presently involved in the "water resources planning game" which, he said, has experienced "great upheaval" during both the Carter and Reagan administrations.

Many of the ag economics student internships, too, are involved with lobbying efforts for various environmental issues. Past internships have included positions with the Soil Conservation Service, the Foreign Agricultural Service, the Conservation Foundation and Friends of the Earth. The Environmental Law Institute and the Natural Resources Defense Council (NRDC) have also been among the many associations and agencies for which CIW interns have served in the past.

"Some organizations, such as the NRDC, are primarily lobbying agencies, but others, like the Conservation Foundation, are 'think-tank' operations focusing on research," Allee said. In addition, CIW students have also interned at the Library of Congress and for individual congress representatives and committees.

Students in the agricultural economics seminar are also required to write a paper on some aspect of environmental policy. These have, in the past, ranged from the relationship between maintaining environmental quality in the Caribbean and its tourism industry to the problem of clearing out tropical rain forests in order to produce timber. Students majoring in natural resources have, in fact, been the largest group participating in the program. Along with ag economics majors, ag college students studying rural sociology, food science and communication arts have also chosen the agricultural economics route to a CIW semester.

The ag economics seminar program is likely to expand even further in the near future, according to Allee. Professor David Blandford, agricultural economics, is considering offering a course dealing with the many aspects of international trade.

"This would make a great deal of sense, and not only for the CIW program," Allee said.

by Debra J. Heller '85
"My uncle, Sigmund Freud, once told me that a man's prize possession is his ego," said Dr. Edward L. Bernays '12, when he returned to Cornell on April 20, 1984. "Well, today, I feel like a billionaire."

Known as the "Father of Public Relations," the 92-year-old alumnus of Cornell's College of Agriculture and Life Sciences was invited back to the University for a day that was to honor his many accomplishments. As the bubbly and cheerful small man checked into the Statler Inn on the gray and rainy Friday morning, he was immediately surrounded by faculty and students in the communication arts department, as well as by newspaper and radio reporters—all anxious to learn about this man's exciting career.

Bernays has had a profound influence on the development of publicity and promotion. He has written 14 books on public relations including *Crystallizing Public Opinion*, the first book on the subject, written in 1923. He was also a highly respected advisor to presidents of the United States from Coolidge through Eisenhower, and he served as public relations counsel to renowned people such as Enrico Caruso, Thomas Edison, Eleanor Roosevelt and Henry Ford. He also taught the first college course in public relations at New York University in 1923.

Probably his greatest contribution is the application of psychology and other social sciences—influences of his uncle, perhaps—to the field of public relations. Bernays was one of the first people to realize that public opinion could be molded.

During the course of the day's visit to Cornell, Bernays recalled humorous stories of time spent with his uncle, Sigmund Freud. Bernays' many achievements, along with his relationship with Freud and his witty yet soft style of narration, make him very interesting to listen to.

After checking in, Bernays took time for a 20-minute interview with two radio reporters. Then he was taken for a campus tour by car, after which he met with Cornell President Frank H. T. Rhodes.

Bernays had lunch at a faculty luncheon in the Communication Arts Graduate Teaching and Research Center. Speaking at the luncheon was Barbara Way Hunter '49, executive vice-president of the D-A-Y public relations firm in New York City, president of the Public Relations Society of America (PRSA) and one of the top five women in the field.

Later in the day, Bernays was interviewed by six communication arts students at the ETV studio in Martha Van Rensselaer Hall. The hour-long interview was videotaped, and the tape will be available for use by students and faculty.

In the interview, Bernays not only
Bernays’ witty anecdotes were highlighted with recounting of his Cornell days, his exciting career and even his lunches with uncle Sigmund Freud.

recalled stories of his days at Cornell (taking a girl friend for a horse and buggy ride around Cayuga Lake on a Sunday afternoon), but he also expressed his opinion about some of the noticeable trends in the field of public relations. Specifically, he recognized and admired the fact that today more and more women are entering and practically dominating the field. Bernays also gave the student interviewers a few words of advice: "You must always research and investigate whatever it is you may be doing a campaign for before you do the actual promotion." As an example, he explained that he was asked to do public relations work for Adolph Hitler. However, feeling that he would not be serving in the public's best interest, he declined the offer.

Bernays was then given an hour to rest before meeting with more than 100 people—faculty and students—at a dinner given in his honor in the West Lounge of Statler Inn. Present at the dinner were Jensen Monroe, president of the Chemung County chapter of the PRSA; Professor Donald Schwartz, faculty advisor of the Cornell chapter of the Public Relations Student Society of America (PRSSA) and departmental chair of communication arts at Cornell; Christopher Whittle, professional advisor to the Cornell chapter of the PRSSA; Cynthia Strousse, the PRSSA Northeast District chair and Richard M. Ramin, vice-president of public affairs for Cornell.

David Call, dean of the ag college, awarded Bernays with a lifetime membership in the Agriculture and Life Sciences Alumni Association. Ramin presented Bernays with a citation of merit, signed by President Rhodes, for his leadership in the field.

Bernays stated at the dinner that it was his study in agriculture that finally influenced him to turn to public relations. While touring plant nurseries for a horticultural magazine, he realized that he "preferred human nature to nature."

The "ego-building" day for the ag alumnus was one to be remembered by all who took part in the activities and especially by Bernays, whose many achievements deserve the honor entitling him to always "feel like a billionaire."

Joined by Barbara Way Hunter, Dr. Donald Schwartz and Chris Whittle, Dr. Bernays displays his Citation of Merit, while Beth Fisher accepts the charter for the Cornell chapter.

As PRSSA students interview Dr. Bernays, his comments are captured on videotape for future viewing by students in public relations courses.
Carnivorous plants. The words form strange images of humid tropical bogs and intrepid scientist-adventurers à la Indiana Jones confronting man-munching flowers three feet in diameter. But, while this scene is highly exaggerated, it has a basis in reality. Most carnivorous plants do grow in tropical or semi-tropical marshes; many types are obtained largely through collection, and there are even one or two types of sundews that can grow traps large enough to ingest squirrels and rabbits.

However, because of carnivorous plants' commercial popularity, scientists are developing new methods of breeding that will prevent the plants from being stripped from the wild.

So, in a way, what is truly going on in one room of Cornell's Kenneth Post Laboratory is even stranger than fiction. Instead of a tropical canopy of leaves, the atmosphere is one of fluorescent lights and white tile. And instead of growing in marshes, these butterworts and pitcher plants are propagated in test tubes.

The four types of butterworts, or *Pinguicula*, being cultivated in Post Lab are found naturally in Mexico and the southern United States, and are not hard to grow by conventional means. Their large, colorful flowers make them popular in commercial greenhouses. Australian pitcher plants (*Cephalotus follicularis*), the other species being grown in the lab, do not usually grow well in captivity, but respond to the controlled environment of the lab. Like all carnivorous plants, they are found in nitrogen-poor soil, and have evolved their predatory ability in order to obtain the nutrients they lack.

At Post Lab, the plants are grown in vitro, or outside the natural environment (in this case, in glass containers), and are propagated by tissue culturing, a procedure by which a large number of offspring can be obtained from one stock plant. "It's a much faster way than the usual method of growing leaf cuttings in sphagnum moss," said Grace Price, the Cornell PhD candidate in floriculture and ornamental horticulture who maintains the plants. "Normally, from one leaf cutting you get about ten buds, but this way there can be hundreds." The difference between the two methods is the medium in which the plants are grown. "Leaf cuttings are put in a medium that contains elements of soil, but without the soil," said Price, "and water, sugar, certain hormones and agar."

"It's the sugar that's most important," said Dr. Robert W. Langhans MS '54, PhD '56, of the Department of Floriculture and Ornamental Horticulture, who is in charge of the experiment maintained by Price. "The agar contains nutrients and vitamins that make it richer than soil, but the sugar is the energy source." He explained that while plants grown under regular conditions obtain their energy from light through the process of photosynthesis, these plants must get their energy from sugar. Growing the plants in vitro enables Langhans and his assistants to experiment with putting different hormones in the medium that trigger the production of hundreds of plantlets from one cutting.

"It takes about four months for one of the shoots in these vials to become full grown," said Price. "Then they're moved from agar to a medium with either peat moss or vermiculite. But until the roots are established, you constantly have to mist them and provide high humidity."

"Carnivorous plants have been hunted like wild animals," said Langhans, "and their specialized environment makes them more and more difficult to find."

It is because of this popularity that in vitro cultivation is necessary. "Someone has to grow these plants," said Langhans, "so they can continue to be sold commercially. This quick method of propagation is needed so that people don't just strip the wild."
The ECONOMICS of Biotechnology

by Cynthia Cowen '85

Working to bring research out of the lab and into reality, the Economic Development Committee, within Cornell's recently established biotechnology program, has plenty of work cut out for itself. The Committee acts as the vital hub of the Center for Advanced Technology for Biotechnology in Agriculture, the state portion of the biotechnology program.

Here at Cornell where industry and education work together, chemical, physical and engineering principles are applied to biological systems, improving food and fiber production.

The Center for Advanced Technology supports research greatly needed to increase technology within New York's industry and academic institutions. Its primary objective is to enhance economic growth in the agriculture, food and chemical industries and to monitor the economic impact of biotechnological study in New York state.

The Economic Development Committee is composed of representatives from the University, industries and state government. According to its chairman, Alan Forker, Professor in the Department of Agricultural Economics, the Committee exists "to facilitate a two-way communication process providing biotechnological and economical information which can be useful in determining program priorities for research."

The Committee proposes to develop economic criteria that the Scientific Administrative Board, the group responsible for issuing research grants, can incorporate into their grant selections. However, these criteria will not be mandatory in the selection process. "The Scientific Administration Board uses economic criteria optionally. If they were allocating scarce funds and there were a number of competing proposals equal in scientific merit, the economic criteria might help tip the scale," said Robert Kalter, professor of agricultural economics and member of the Committee.

Another issue which will be addressed by the Committee is the means to move technology into commercial production. According to Forker, a specific project or product will be analyzed in terms of economics. What will be the costs associated with production, transfer or utilization? And what economic potential could this product, if utilized, provide? Adoption rates will also be analyzed: how quickly can this technology be integrated within the industry?

The Committee along with the ag economics faculty will be conducting research to answer these questions. Incentives will also be proposed to encourage entry of new industries into the state. "Once we know the state's labor availability, taxes, relation to the market and proximity to scientists, we'll know if these factors are attractive to new industries. Then we can work with the state to change those that are not," said Forker.

The Committee will also be designing a working model of the state's economy. With this model, economists will be able to introduce a new piece of research into the model and assess its economic impact.

With the Economic Development Committee acting as liaison, Cornell's new biotechnology program will not only provide great gains in research, it will also serve to bridge cross-disciplinary boundaries. "There has always been a certain amount of distance between universities, the government and industries, and closeness can be very beneficial. This new program provides the potential for that benefit," said Kalter.

Advances in biotechnology are helping to make the research process easier.
Dave Smith is the manager of a large food store. He lives year round in Miami, Florida. Smith has never been to Cornell nor does he anticipate a visit in the near future. Smith is a Cornell student studying Produce Management and Customer Relations. Something wrong? Hardly. Over 16,000 people across the United States, Canada, Japan and throughout the world are, like Smith, involved in what is probably Cornell's best kept educational secret—the Home Study Program.

Offering over 22 food industry related courses, the Home Study Program is an extension of the Department of Agricultural Economics in the College of Agriculture and Life Sciences. Since its inception in 1964, over 130,000 students have enrolled. "The first course offered was a basic economics course focusing on the consumer," explained Gene German, Associate Professor of Marketing, MS '59, PhD '78, and the original director of the program. "The National Association of Food Chains approached Wendell Earle (Professor Emeritus Marketing, MS '48, PhD '50) and urged him to develop a home study program tailored to meet the needs of the people working in the retail food industry," German said. "That year, one of Earle's graduate students wrote his Master's thesis on independent study in the food industry, patterning the first course after a similar home study program offered by the American Institute of Banking."

The philosophy of the program is to fill an educational void for food industry professionals, providing them with the opportunity to gain additional formal education in the field. "Many people in the industry got into it through their family businesses," German said. "They now find themselves in responsible positions wanting to pick up additional courses but with no time to go back to school."

The self-paced program requires a $50 course fee which includes the cost of the textbook and the self-study guide explaining the assignments. The guide also includes the self-administered exams. The student, upon completion of each assignment, takes the corresponding test and then mails it to Cornell for grading. "We use a group of undergraduate and graduate graders/instructors to evaluate the exams. This helps to minimize expenses and when returned, the accidental coffee stains let the students know their work is being judged by something more than a computer," said Robert Nolan, Assistant Program Director. After successful completion of a final exam, the student is issued a Certificate of Completion. "The Cornell Home Study Program boasts the highest completion rate of any correspondence program, with an average at-home completion rate of 61 percent, while over 95 percent complete the courses in a workshop situation," said George (Bud) Hayward, Director of the Cornell Home Study Program. "The national average completion rate is 13 percent."

"One important thing to recognize is that we offer additional educational and training opportunities to companies and their employees. We do not want to take the place of in-house training programs, but instead, to act as a supplement. We can afford to put together the needed materials because we supply the entire industry," Hayward noted, pointing out the value of the Home Study Program in a workshop seminar situation. "Working with the company's training director, Bob or my-

From New York to Japan, thousands have successfully completed home study courses.
Is the cost of the Home Study Program greater than the benefits?
Both directors and employees agree that the program provides a valuable low-cost method for gaining practical knowledge.

People, was written by Edward M. Harwell, a Cornell graduate and now Vice President of Personnel of a national food chain,” said Hayward. “However, Food Merchandising, also one of our most widely used courses, follows Professor German’s textbook and is patterned after the course he teaches at Cornell.” As the only program of its kind at Cornell, or for that matter, in the country, Hayward realizes the obligation the program has to its students. “Laws and regulations are constantly changing. In order for us to keep our students aware of these changes and up-to-date on important information, we send out supplements rather than waiting for the next edition of the textbook to be printed.”

The Cornell Home Study Program has recently assisted the Department of Natural Resources in the development of its first home study program, Woodland Management. “Working with our Program Editor, Janelle Tauer, natural resources provided the content and we are doing the marketing and management,” Hayward said. “We’ve realized the tremendous potential and need for such a program in our field and now other departments are realizing this too. We have the vehicle to help disseminate this approach and we’re willing to work with other areas of the University to develop similar programs.”

Virtually every food industry company in the United States and Canada, as well as many in Japan and Australia, participate in this program. The impact of the program is both impressive and far-reaching. A Certain Cornell professor vacationing in Michigan one summer would undoubtedly agree. He stopped at the local food store, hoping to cash an out-of-state check. At first, the store manager adamantly refused his request. Yet upon review of his identification and after discovering his Cornell affiliation, the manager smiled, cashed the check and pointed to the wall behind the register. There hung five Certificates of Completion, proof of the Michigan manager’s own “Cornell Experience.”

Is the cost of the Home Study Program greater than the benefits? Both directors and employees agree that the program provides a valuable low-cost method for gaining practical knowledge.

Personnel Directors

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Students

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The dusty shoe box looked ordinary enough as it was slid from its resting place on the top shelf of a closet in Cornell's Andrew Dickson White Museum of Art. The museum's contents were being moved to the newly built $5 million Herbert F. Johnson Museum of Art. As the mover lifted the box top, he probably expected to see a forgotten pair of baseball shoes or some trendy pumps, but instead, he found several pieces of crusty, corroded metal. Not knowing exactly what they were or what he was to do with them, he contacted Robert G. Calkins, Professor of the History of Art and Robert T. Farrell, Professor of English in Cornell's College of Arts and Sciences. These two men were scholars in the fields of medieval art and archaeology respectively, and the mover thought they might know something of the pieces.

When the professors peered into the box at the objects, which were wrapped unassumingly in paper towels, they suspected that they did indeed know something about them: they knew that the pieces were scarce and that they were valuable.

The box, discovered in November 1972, contained a major archaeological find of Romano-Saxon artifacts dating from the fifth century A.D. It appears to be the only complete collection, in this country, of Romano-Saxon grave goods from a known site.

The box contained 12 objects when its contents were pieced together: two bronze brooches, which secured the tunic-style garments of the times at the shoulders, a lance head, a knife, several nail heads from a shield, a shield handle and an iron boss, the protection for the hand grip of a warrior's shield.

From the moment they were discovered in the closet, the relics were shrouded in mystery, for no one seemed to know what they were, where they came from or how they ended up in a shoe box in Ithaca. The museum had no record of their arrival.

In doing some detective work, Calkins crossed the path of Frederic O. Waage, Professor Emeritus of the History of Art. Waage had received a letter about ten years earlier from an Oxford University student searching for a set of Romano-Saxon relics supposedly kept at Cornell. From the references in the letter, Calkins was able to track down the history of the pieces.

In 1870, three skeletons, a young warrior, an elderly woman and an old man, were exhumed from a British cemetery near Oxford by George Rolleston, a professor of physiology at Oxford University. Rolleston was a friend of Goldwin Smith, a Cornell faculty member, and, as Calkins says, "He thought the new American university ought to have an anthropology department, so he sent over a couple of skeletons and artifacts."

When the relics were discovered—or more aptly, rediscovered—at Cornell, Farrell conducted their preliminary reconstruction himself in a small basement room in Rockefeller Hall. The collection was then flown to the British Museum in London where its authenticity as a set of fifth century Romano-Saxon artifacts was verified and where their reconstruction and preservation were completed.

The Johnson Museum, whose opening 11 years ago triggered the dramatic discovery of the medieval artifacts, now houses the collection. Calkins says of the discovery, "Finding the relics was a fluke...it was absolutely wild." As Farrell, a seasoned archaeologist, leans back in his chair, he says with a laugh, "The pieces are wonderful, and the best part is that I didn't even have to crouch in slippery muck for six weeks to find them!"

These carefully reconstructed medieval brooches, once housed in an anonymous shoe box, have now become a part of the permanent collection at the Herbert F. Johnson Art Museum.
You're no good if you're not thin. Month after month popular magazines fill their pages with new diets, exercise and health features, often leaving readers with the message that if they're not thin, they're not successful.

Millions of Americans, especially women, remedy their “fat fears” by turning to overzealous dieting and exercise.

Some become victims of life-threatening eating disorders such as anorexia nervosa—a self-starvation illness; bulimia—extreme guilt resulting from food binging; and bulimarexia—a binge-purge syndrome involving forced vomiting, excessive use of laxatives or diuretics and/or fasting.

“Women in the western world are not satisfied with their body shapes and feel that they should be thin, like models,” noted Martha Mapes, a senior associate for Cornell Cooperative Extension in the Division of Nutritional Sciences, a joint unit of the New York State Colleges of Human Ecology and Agriculture and Life Sciences at Cornell. Mapes has been working with nutrition educators to help them deal with eating disorders.

Some men have also experienced the depressed feelings about their body shapes, and, like women with these same feelings, they turn to abnormal eating and weight-loss habits instead of turning to healthful weight-loss programs, thinking thin is in.

Being fit is in. “Women and men need to realize that being fit and healthy does not necessarily mean being thin. Being fit is in, says Martha Mapes. Being in good physical condition is much more important,” said Mapes. In fact, many women are in good physical condition although they do not have the bodies of fashion models.

In our society, however, so much emphasis is placed on physical appearance that some people create pressure on themselves to be thin. “The classic good girls under severe pressure to perform are the main victims of many eating disorders,” said Marlene Boskind-White MD, a former therapist at Cornell University. “Many start to exhibit eating disorder traits during times of intense stress, such as in their college years,” she added. As much as 20 to 30 percent of all college-aged women are affected by such symptoms.

Three factors work together to predispose men and women who suffer from eating disorders: the social climate, biological vulnerability and early experience. The psychological pressure that women exert on themselves to be thin can be devastating. Often women tell themselves that their friends and peers will not accept them if they are overweight. Social forces often cause women to have feelings of insecurity and negative self-images.

People need to accept the reality of their bodies. Females have a higher fat content than men. A normal range of total body fat in females is 18-32 percent versus 7-22 percent for males.

“Most people with weight problems don't use healthy weight management programs,” noted Mapes. Instead they ride a weight-gain, weight-loss teeter-totter using only caloric restriction to achieve their goals. “What they don't realize is that the body reacts by conserving energy and shutting down basic metabolic needs. For example, a 600-calorie deficit may, as a result, produce only a 200-calorie reduction. Exercise produces the opposite effect, raising your basic metabolism and energy needs,” said Mapes.

Maps warned that chronic dieting based on the currently idealized female body form of bony thinness may have unhealthy consequences. Symptoms such as irritability, poor concentration, anxiety, depression, apathy and fatigue are associated with prolonged caloric restriction.

She advises instead to get in shape by looking at your smoking habits, alcohol intake, activity patterns and the nature of your diet. “Overzealous dieting and hyperactivity are seeds of more serious diseases,” Mapes concluded. “However, if people find they are in need of counseling for eating disorders, they should seek professional help.”
ONE WHO EATS BREAD WITH ANOTHER

by Anne Higbee '84

Take yourself to the moon. You can see the blue earth, whole and complete, as it balances there in the air. If you could look more closely, you could see the people, their lives intertwining and giving the world life—making it alive. Yet this life would not be possible without food. Food is the essential nourishing element that frees one from a state of mere survival to a state of vision.

In most cultures, eating satisfies more than a biological need—it incorporates a ritual—the ritual of maintaining relationships. Through sharing food we initiate and celebrate our relationships. In fact, the word "companion" is derived from the French and Latin words meaning "one who eats bread with another." Perhaps we can measure our relationship with the world by our distribution of food.

In the world today, one out of every four members of the human family goes hungry. Fifteen to 20 million of us die every year from starvation, which equals 41,000 lives every day—28 every minute—21 of them children. Those of us who have never known hunger may sense a feeling of guilt, yet that feeling is actually what keeps the problem from being solved. People feeling guilty—that they can't do anything—causes a separation from the human family. What is needed is solidarity.

Many individuals have joined groups and organizations working toward ending hunger as it persists in the world today. Many of these groups existing on the Cornell campus are funded to help express the commitment of ending world hunger. The International Agriculture Program (IAP) was set up at Cornell in 1963 with the purpose of "enhancing the educational program of the ag college by providing greater breadth of perspective and an expanded base of experience in the resident staff and providing assistance and expertise to institutions in other countries."

Specifically, students in the program deal with the special problems involved with the agricultural inefficiency of low-income countries. When introducing a new crop or method of growth into needy countries, the program takes into consideration the soil and climate of the area, as well as the social and spiritual effects this change may have on the people. This is done so that any changes will not blindly alter traditional ways of life.

Also involved within the IAP is the Center for the Analysis of World Food Issues (CAWFI) which was organized to examine world food problems and disseminate their findings to the public. This sort of expertise is what is needed to make ending hunger an idea whose time has come. A student group on campus, The Hunger Project, has expressed this idea through the painting of a "World Community Mural" in Collegetown. The mural is a conglomeration of many organizational logos which shows that the vision of world community must come from the participation of everyone.

There are more organizations with similar goals on campus and throughout the Ithaca area. Some are not specifically working to end world hunger, yet all are targeted to improving our world.

One international expression of solidarity occurs on World Food Day when over 150 nations join to solve the hunger problem. First instituted in 1981, the day is celebrated annually on October 16 throughout the world. As Matthew Drosdoff, Professor Emeritus of soil sciences in Cornell's College of Agriculture and Life Sciences, writes "One can either be optimistic or pessimistic about future world supplies to meet the demand..." It takes personal commitment to make dreams come true. Cornell University, through the IAP, celebrates World Food Day by organizing speakers and programs on campus, geared to get others involved in ending world hunger.

World Food Day, October 16, is a time to create a vision of how the world should be. Elizabeth Dodson Gray wrote, "How good would a piece of bread taste, filled with the realization that all people are eating? It would have the freshness of the sky after a hurricane and the savor of that first food after sickness. It would not have the slightly bitter aftertaste which poisons it now."

Keeping this vision in mind allows us to look at the earth as a whole entity—completely rich and full as it hangs there in space, nourishing the lives of all of us.
Jobs In Extension

When students in the College of Agriculture and Life Sciences begin the search for the job of their dreams, many may not realize that the Cooperative Extension office in 31 Roberts Hall might be just the place to find it.

To many people, "Cooperative Extension" might conjure up thoughts of an agent talking to a farmer about the latest advances in agriculture. While agriculture is still a vital service of Cooperative Extension, the organization hires people with a range of skills in various fields, according to Extension Associate Barbara Eshelman.

"We have four general program areas—agriculture, home economics, 4-H youth development and community issues programming," she said. "One of the main qualities we look for in applicants, obviously, is subject-matter expertise. A second quality we look for is initiative, something within the person's background that shows that this person is a doer. Good communication skills are also essential to succeed as an agent."

To find potential employees who fit this description, Eshelman said cooperative Extension uses a number of recruitment tools. "We send our announcements nationwide to a variety of placement offices and employment agencies," she said. "We also have a list of contacts—people who have indicated interest in a career in Cooperative Extension and have submitted a resume. We call them our active applicant file."

Other methods used, according to Eshelman, include contacting faculty for potential candidates and the use of local advertising.

While anyone with a bachelor's degree in agriculture or human ecology is eligible for a job with Cooperative Extension, Eshelman said that Cornell graduates may be ideally prepared because the research base for Cooperative Extension in New York state is at Cornell. "The students who graduate from Cornell already know the resources and they're presumably comfortable making contacts with faculty and with researching information here," she said.

Now in its 70th year, Cooperative Extension has evolved to keep up with the changing needs of the people it serves. "For example, even though our roots are in agriculture, Cooperative Extension is working more and more in urban areas and in community issues programming," Eshelman said.

The four main program areas—agriculture, home economics, 4-H youth development and community issues programming—encompass topics that require expertise in many fields.

"In agriculture, we have programs in farm business management, animal science, vegetable crops, horticulture and pomology, as well as other areas which draw upon the resources of the College of Agriculture and Life Sciences," Eshelman said.

In 4-H youth development, Cooperative Extension agents direct program efforts toward youth aged 9 to 19 through a variety of educational projects and activities. "For example,"

The home economics agent shows that Cooperative Extension plays a role in many aspects of life.

Eshelman said, "one of the newest projects in 4-H is called 'BYOB—Better Your Own Body.' The focus in this project is good health and alcohol and drug abuse."

In home economics, Eshelman said that two major areas agents are involved in are foods and nutrition, and family resource management. "The latter is an umbrella term for making the most of family resources of all types—money, time, and energy."

Eshelman said other program areas in human ecology include human development and family studies and energy and housing.

With entry level positions ranging upwards from a minimum of at least $15,000 in 1984 plus the opportunity for advancement, students may want to look into a career as an agent in Cooperative Extension. But Eshelman said other factors may be just as important as the salary.

"Cooperative Extension agents have tremendous variety and challenge in their work," she said. "No two days are ever the same. Agents are leaders in their communities—they're teachers, but their classroom is the whole county."
Endowed by the class of 1917, this trail honors class secretary, Herbert F. Johnson.

"Take only pictures and leave only footprints," advised the Cornell Plantations map, then wet and wrinkled, as I checked my route just beyond the main gate of the F. R. Newman Arboretum. It was mid-morning, raining lightly as it had been on and off for days; but the day was planned and, raining or not, I was going to visit the Plantations for the very first time.

At once I was struck with the greenness. Having, for days, seen nothing but grey skies and dreariness, the green, enhanced by a slick rainy gloss, reached out and drew me into the preserve.

The arboretum, which covers the eastern portion of the Plantations, is the area where selected trees and shrubs are grown for both study and show purposes. "The main idea behind the Plantations and especially the arboretum is to show people a full range of plants," explained Rick Bogusch, grad who is on leave from study and is currently the acting landscape architect for the Cornell Plantations. "This area, with its variety of soils, terrain and elevations, permits a great deal of diversity."

In 1979, fifty-one acres were added to the original Plantations arboretum. In June of 1982, the entire arboretum was named in honor of F. R. Newman '12, who donated $2 million to the University for the development of the arboretum's expansion area.

These additional acres have provided space for several new plant collections to be established. Most of these projects evolve from donated funds and can be implanted only as quickly as private contributions permit. Several of these projects are in various stages of development.

Planting is currently under way in the development of a ten-acre dogwood collection, funded by gifts from James B. Palmer '21 and Martha Kinne Palmer '24. From a gift by George S. Kephart '17, the glen area is currently being transformed into a valley shaded by evergreen and deciduous trees, all native to the regional landscape. Another project that is planned but not yet funded involves wetland plantings around the arboretum's two ponds.

Although it has been most common for gardens and collections in the Plantations to be funded by single donors, there are now opportunities for groups to support memorials.

One major memorial of this type, the Order of Bloom Collection, is currently being planned. It will soon be flourishing with living memorials, chosen for their adaptability to lowland areas.
being planted in honor of Professor Ralph W. Curtis '05. This collection is comprised of woody plant materials planted according to bloom sequence, all chosen because of their distinctive flowers. The idea behind the Order of Bloom Collection is that something will be flowering within the area from late winter through to the fall. As early as February, vernal witch hazel will bloom in a mass of fiery copper. Many other plant varieties will bloom throughout the spring, summer and fall until late November when American witch hazel will spread its bright yellow flowers in a graceful finale.

Another group memorial fund is being set up in honor of Cedric H. Guise '15, Professor of Forestry and head of the forestry department from 1944 to 1948. Guise was a firm supporter of the Plantations and, for the many years he was at Cornell, worked to develop the area into what it is and is continuing to be the perfect natural classroom. These collections are some of the many parts of the ever-growing Plantations where education is always a primary focus. "We have a very strong emphasis on education here," said Bogusch. "The plants are arranged so that visitors will see not only their beauty, but the relationships between different species as well."

As an idea of the funding required to support these memorials, the Curtis Order of Bloom Collection needs $200,000, half of which will go toward purchasing, planting, fertilizing and recording while the remainder goes into an endowment fund to maintain the plants and replace those that die unexpectedly.

Bogusch added that, although Cornell alumni support over half of these collections, "We are trying more and more to become both a community and a New York state institution. We’re proud of the New York landscape, and the species native to it are prominent features in the arboretum and in the new collections."

Because these collections are plants which, in some cases, take years to mature, the planning of the memorials requires a great deal of future vision and imagination. "We’ve really just gotten started," said Bogusch. "there is so much to do now, and yet we are constantly looking ahead— sometimes even 50 years ahead—to the completion and maturation of our overall landscape plan."

How is your imagination holding out? These collections are certainly something to look forward to if we’re patient enough. Said Bogusch, "Sometimes I find it very frustrating to be always thinking so much into the future appearance of the Plantations. I think how much easier it would be to deal with something more tangible like a stone wall—where you can see the project through from start to finish without waiting so many years to see the final product."

As I traipsed among the green, I tried to picture what it would be like if I were to come back in 30 years. I figured it would probably be raining— at the time I couldn’t quite imagine the warmth of sunshine drying my rain parka. As for the new collections, I was too involved with all that was presently around me to imagine much of anything. I’d love to be back in 30 years, but for now I’ll just leave my footsteps and take away the richness of new discovery.

For information concerning visits or donations to the Plantations, write or call Cornell Plantations, One Plantations Road, Ithaca, New York 14850 (607/256-3020).

by Mary Jaye Bruce '85
A GOLDEN LEGACY
at
WARREN HALL
by Jarlath Hamrock

His portrait hangs unassumingly in the foyer of Cornell's Agricultural Economics building, overlooking the daily traffic of students, staff economists and social scientists. Yet it was George Frederick Warren, a professor of farm management 50 years ago at the New York State College of Agriculture, who, in the thick of the Great Depression, put the city of Ithaca and Cornell on the world map.

At the high point of his career as an applied economist, Warren advised President Franklin Roosevelt on the controversial gold question. To the consternation of Wall Street and London financiers, Warren persuaded FDR that inflating the domestic price of gold bullion would lift farm prices and other United States commodities from their deflated levels, thereby moving the country from the throes of depression. During the early days of the New Deal this is exactly what the president ordered. Warren's monetary policy took the United States—and the rest of the world—forever off the gold standard.

Born on the dryland prairies of Nebraska, George Warren spent much of his boyhood tending livestock and helping the family raise sunflower, potato and corn crops. Undergraduate study in mathematics and botany at the University of Nebraska prepared Warren for graduate work at Cornell when, in 1902 he came east to study agriculture under Liberty Hyde Bailey.

After preliminary training in agronomy, Warren embarked on what is considered the first statistical survey in horticulture in the United States—An Apple Survey of Wayne County, New York. Equipped with a soil auger, an experiment station credential, notebook and camera, all mounted on a bicycle, Warren spent three months in the field "assembling such masses of facts as may be collected by examining the soils and conditions of trees in hundreds of orchards."

In the fall of 1903, Warren became founding editor of the Cornell Countryman, "an illustrated monthly magazine, published by the agricultural students of Cornell University."

"It is not our purpose to enter the field so well filled by the many excellent farm papers," announced the publication in its debut issue, "but rather to appeal to the student of agriculture, be his work in farming, teaching or investigation."

General agricultural news and scientific investigation "will be given prominence," noted the editor.

The following summer in 1904, Warren conducted additional orchard examinations in Orleans County, calculating and comparing soils, apple varieties and markets, average yield, income per tree, age of trees, distance between trees, pruning methods, spraying, fertilization and tillage. The two surveys earned Warren a doctoral degree in horticulture.

"The results of the statistical work in these countries is so striking," wrote Dean Bailey, "it is now proposed to
apply the survey method to farming in general, rather than to a single crop or market.”

Thus began the nation’s first farm management survey, under Warren’s direction, which became the early model for the rest of New York and the United States. An Agricultural Survey of Tompkins County, New York, published in 1911 as Cornell Experiment Station Bulletin #295, “represents as far as we know the most complete census-taking of its kind,” said Bailey.

Warren was soon directing the department of Farm Management at the College, where agricultural economics and survey work thrived. Able young men and women became the department’s “strongest resource,” according to its new director. Warren’s department attracted students from all over the state, the nation and the globe. Warren pioneered the tabulation of farm cost accounts and developed the original “cost of production” index for major farm commodities. Elements of Agriculture, Warren’s classic text, became a best seller.

“He instructed us beyond agricultural economics—he taught logic,” remarked a former student and New York dairyman, Paul Smith ’12, who eventually was appointed the Deputy Commissioner of Agriculture and Markets.

Warren was known for his quiet personality, dry wit and, unjustly perhaps, a conservative philosophy: “It takes time for new ideas to become established,” said the professor. “The farmer is conservative; because he moves slowly, he moves surely. We cannot expect everyone to accept new ideas as they are advanced. Some mature men can readily adapt themselves to new conditions, but it is usually the young man, born under these conditions, who really accepts them.”

Shortly after the 1929 financial collapse on Wall Street, Warren was appointed as chair of New York governor Franklin Roosevelt’s Agricultural Advisory Commission in Albany. It was during this time, with the help of farm leaders across the state, that Warren persuaded New York legislators of the need for a new economics building at the College. At the cost of $600,000—no small sum during the depression era—the four-story structure on the upper campus was completed.

Never lost for vision, the practical-minded Warren included in the building’s design an auxiliary system of empty pipe tubing for some future use. “That plumbing,” predicted Warren, “is for something not yet invented.” The professor laid the building’s cornerstone during the governor’s presidential election year, in 1932.

By 1933, Warren occupied an office in the new building at the same time he was advising the new president on monetary matters. The Gold Reserve Act, called by one critic “the most courageous and important act in the nation’s economic history,” was signed by Roosevelt in 1934, fifty years ago.

Warren officiated at the annual International Conference of Agricultural Economists for several years before his untimely death in 1938. The first secretary-treasurer of the American Association of Agricultural Economists (which convened last August for its 75th meeting at Warren Hall), George Warren left his mark in the field of agricultural economics.

“He was a man apart,” said Bailey at the time of Warren’s death. “His department at Cornell broke new ground. Dr. Warren amassed facts with tireless patience and perseverance. A few words from him might change the course of a man’s thinking. Warren was honest in his opinions to the point of perfect clarity. The people on the land believed in him. We stop to ponder when such men leave us.”

The 1903-04 Cornell Countryman editorial staff. Seated in the center is George Warren, first editor. Beginning in the back, from the left to right, are: R.W. Curtis, George Lauman, Mary Clement Shepperson, W.I. Thompson, Warren, Charles S. Wilson, P.E. Clapp, Christian Bues, and Lynn Ayer.
Cascadilla's archway is the 'front door' for the McNeil family, Susan, Dick and Mary Ann.

When Dick McNeil goes home after a busy day of classes, he goes to the same place that 380 students call "home." McNeil lives in Cascadilla Hall, but he is not a Cornell undergraduate. McNeil is an Associate Professor of Natural Resources, in the College of Agriculture and Life Sciences who lives in the residence hall with his wife, Mary Ann, and daughter, Susan, as part of a program called Faculty in Residence.

Although the Faculty in Residence (FIR) program has been in existence for five years, the McNeils are pioneers because they are the first family to live in a residence hall since the program began. While this arrangement is considered "experimental" today, it was common practice at Cornell in the 1800s. When Cascadilla was first used as a residence hall in 1868, "President, faculty and students, captain, crew and passengers lived together in crowded discomfort," according to Morris Bishop '14, in A History of Cornell.

As FIRs for Cascadilla Hall and Sheldon Court, the McNeils have certain responsibilities which include improving the intellectual climate in the residence halls and improving the understanding between students and faculty. The McNeils have expanded their job description to include improving the aesthetic and artistic environment in the residence halls. Since Mary Ann is an artist, she has helped to further students' involvement in cultural events by planning activities that focus on the fine arts. Last semester (spring '84) she invited a spinner, a potter and an art history professor into the residence hall, as well as organized an art show, a mask show and a music program.

Programs similar to Cornell's FIR group exist at other schools, such as Brown and Harvard, yet each university has a unique approach to the program. At Cornell, the FIRs have "no disciplinarian roles or responsibilities," according to Dick. There are still the same number of student resident advisors in residence halls with FIRs as in halls without them.

The McNeils had been living in a house on the outskirts of Cornell before they decided to become involved with FIR. Dick said the reason for their move to Cascadilla was that they "really enjoy working with undergraduate students, and we thought we would be effective as FIRs. Also, we felt that if students dealt with professors on a day-to-day basis, they would realize that we are people and have the same types of problems and stresses as they do, and vice versa."

Susan, the McNeils' 15-year-old, loves life in the residence hall. She said, "The students are like brothers and sisters to me; they take me out..."
to have pizza, and eat ice cream and to see movies.” Susan does things for the students, too, such as baking cookies and babysitting plants while their owners are away. As for the late night noise and parties in Cascadilla, Susan said, “It doesn’t really keep me up. In fact, I go to sleep earlier here than I did in our house because I deliver the Cornell Daily Sun in Cascadilla in the mornings.”

The McNeils feel that “one of the most satisfying things about living in Cascadilla has been the opportunity to see students grow and mature.” Even though students still go to their resident advisors with problems, the McNeils often have students dropping by to talk with them. “During the breaks the students that did not go home spent a lot of time here (in the McNeils’ apartment),” said Mary Ann. “We love those times because it enables us to get closer to the students.”

In addition to being a fatherly figure in the residence hall, Dick maintains the role of teacher. Every Sunday night from 10 p.m. to midnight he teaches a course in Cascadilla for residents of the two living units (Cascadilla and Sheldon Court). The course is taken for credit and “uses science fiction as a vehicle for looking at social and environmental problems.” Dick said, “I enjoy teaching this course because it is more relaxed and informal than a large lecture class, and there is more give-and-take between the students and me.”

In the spring of 1984, Cornell’s administration took steps to make the FIR program more visible on campus. At that time, University officials began encouraging all FIRs to eat some of their meals in on-campus dining facilities. “The idea behind this is that certain types of programming might be enhanced by the informal encounters that occur at mealtimes,” according to Dick. The FIRs are encouraged to bring faculty guests with them to further augment student-faculty interaction.

Student reactions to the FIR program have been favorable so far. Rich Masiello, engineering ’87, a resident of Cascadilla, said, “I think the program should be started in more residence halls. I feel that we (the students) gain a lot from the McNeils being here, yet we don’t lose any of the normal residence hall experiences.” Maureen Sherry, ag ’85, a resident advisor in Cascadilla, said, “Dick seems to take a real individual interest in each person,” and, according to Dan Salazar, arts and sciences ’86, “The McNeils’ presence here adds a homey touch to the residence hall.”

So it seems that the FIR program is working out well for everyone, at least as far as the McNeils and the residents of Cascadilla Hall and Sheldon Court are concerned. Would the McNeils recommend the program to other faculty members? Dick says, “Yes, because it is a marvelous experience and it benefits both the faculty and the students.”
The main entrance of the Robert Mondavi Winery in California.

"It" creates an impressive resume, provides important career contacts, increases student/advisor interaction, builds confidence and knowledge in a career interest, gives on-the-job experience in a student's major and even counts as credit—not to mention that it provides sponsors with bright, highly-motivated volunteers. What is this irresistible "it"? It is the Communication Arts Internship Program.

In the summer of 1983, when I was a junior, I realized how crucial my last summer before graduation was for gaining practical learning experience in my major. The internship seemed to be the most practical way to get that experience.

Many students avoid internship programs despite their attractive qualities. Some say the available internships aren't targeted toward their career goals. Others find the locations boring or are afraid to venture into unfamiliar places. The primary concern is the cost involved. Yet, students can find appropriate internships that satisfy not only their career goals but also their accustomed lifestyles.

Being a communication arts major with a concentration in viticulture, I was determined to be an intern in the public relations division of a large winery. However, with this specific job objective in mind, I discovered that the internships available through the communication arts department weren't what I wanted. At this point, many students in similar situations give up on internship programs, forgetting that with enthusiasm, determination and luck, things can work out.

Optimistically, I conducted my own research and depended on family contacts. Cornell encourages student involvement in finding appropriate positions for themselves, but only after they have first investigated what Cornell offers. Once students discover an appropriate internship, they must present the idea to the internship committee for approval. After the program is approved, the student may accept it.

Luck plays a role in public relations as it does in any field. From previous public relations courses, I had learned that being in the right place at the right time can make a substantial difference in job seeking. Fortunately, my father's excellent timing and wine industry affiliations landed me an internship at the Robert Mondavi Winery in California's beautiful Napa Valley. My summer internship dream was not possible, however, until I gained communication arts departmental approval.

First, I approached my internship advisor, Dr. Donald Schwartz, departmental chair for communication arts, with my proposal. He was then responsible for discussing my idea with the internship committee. In gaining approval, I finalized my internship with the Mondavi Winery, a place I had never seen and where I knew no one.

To insure that my internship began successfully, I contacted the winery personnel director for information concerning lodging, supplies and
clothing I would need, car rentals and duties to expect to have on the job. I also conducted extensive research on the Mondavi family, winery and wines. This investigation gave me confidence and knowledge in an area where I was soon to pose as an expert.

As I drove my ‘Rent-a-Wreck’ to the winery on the first day, I made sure to arrive fifteen minutes early—showing enthusiasm and punctuality. The personnel director introduced me to the public relations director, and gave me a notebook containing facts on the winery, family and vineyards, plus Napa Valley activities, emergency numbers and employee names and their phone numbers. This key information provided me with answers every day. I highly suggest that students on internships seek out this information if it is not provided by the firm at first.

The public relations director, Harvey Posert, explained the list of my duties:

- organizing and developing a media notes filing system on the Mondavi family, wines, wine reviews and contests, Mondavi jazz concerts and cooking school;
- working with the public relations staff on developing a campaign strategy for Mr. Mondavi’s first business trip to Japan;
- attending weekly public relations meetings;
- reviewing and answering consumer wine compliments and complaints;
- escorting VIPs visiting the winery and the jazz festivals;
- reading specific wine articles and discussing marketing strategies of this winery and comparing them to strategies of other Napa wineries with my supervisors.

Development of the public relations campaign, or promotional packet, for Mr. Mondavi’s business trip to Japan involved me in many activities. I was asked to research popular Japanese meals and then to figure out which Mondavi wines would best enhance them. I also had to investigate Japanese wine-drinking habits. Libraries, bookstores and Japanese restaurants in the Napa Valley were my sources of information. Robert Mondavi’s wife, an expert on oriental cuisine, offered many suggestions. Once the wines were chosen, detailed descriptions of their wine-making procedures—the grapes used in their scents, flavors and colors—were devised. The packet contained a Japanese menu with Mondavi wines, wine descriptions, speeches and various wine-related information. Folders, which I helped establish, on the Mondavi winery history, family and wines, were developed for the Japanese retailers.

I worked eight hours a day, five days a week. Because of the winery’s policy, I was fortunate to be paid $3.50 an hour. Most internships offer no pay. This money helped pay for my car, lodging, gas and food.

After a while, I became more aggressive and learned to seek assignments instead of waiting for them. I never hesitated to state my opinions or questions during the weekly public relations meetings or during discussions with my peers. Supervisors like enthusiasm, dedication and honesty at work.

At the end of my internship (June 25-July 31), the Mondavis asked me to stay for the month of August as a tour guide. I accepted without hesitation and in, a sense, started another public relations internship. Tours are an important part of the Mondavi Winery’s promotion. Guides must be able to communicate effectively with visitors, thereby contributing to the image of the winery and its high quality wines. It paid off to arrive early and stay late at work, showing dedication and willingness to help others, even if it meant licking 300 envelopes.

During the first week as an intern, it is imperative to become familiar with every aspect of the job. Maintaining a diary of the experience is one of the most important activities to follow strictly. Once the intern returns to Cornell, a detailed paper describing skills learned during the internship is expected, and a diary greatly facilitates this project.

As a senior facing the competitive job hunt and interviewing process, I learned to take advantage of my internship by mentioning it on my résumé and during my interviews. The majority of the interviewers’ questions concentrated on my internship experience.

The positive responses received from participating in such a program adds another benefit for students to think about when contemplating an internship.

Internships provide valuable knowledge about career interests, introduce possible career contacts and, above all, build independence in a person’s way of thinking.
TOO MUCH MILK?

by Nancy Harrison ‘85

Dairy farmers are producing milk faster than Americans can drink it up. As a result, there is a dairy surplus that, in 1983, reached 16.8 billion pounds, a full 13 percent above consumer demand. This dairy surplus is costing consumers money.

"Consumers are paying more for dairy products than they would if things were in balance," said Andrew Novakovic, assistant professor of agricultural economics in the College of Agriculture and Life Sciences. "Some economists estimate that the price of milk products is as much as 20 percent too high."

The federal government is required by Congress to support farm prices at a certain minimum level. In recent years, an overly high minimum support price has resulted in large and growing surpluses of dairy products that could not be sold in the market. High support prices have inflated the prices consumers must pay for dairy products.

Next to higher costs, consumers are also paying for the surplus in a more roundabout way—through taxes. According to Novakovic, the greater the surplus, the higher the total government cost and "The surplus is expensive, costing taxpayers a net of $2.6 billion for purchasing and storing the surplus milk in fiscal year 1983."

While consumers feel the pinch in higher prices and taxes, the government has the headache of trying to figure out what to do with all that excess milk. One alternative plan was to export the surplus but to eliminate it altogether, was to cut support prices. According to an article in the spring 1984 Dairy Marketing Notes written by Henry Kinnucan and Alan D. Forker, the latter a professor of agricultural economics at Cornell, "... reductions in the support price of milk can be expected to translate into lower retail prices for dairy products, [and] with lower prices, commercial sales will increase." Although this proposal would have eased prices for consumers, it was opposed by many dairy farmers who feared that decreased production and higher prices would result.

As a compromise, the government passed the Dairy Production Stabilization Act in November, 1983, which called for a slight cut in price supports coupled with a milk diversion program, a 50¢/cwt. assessment and national promotion programs.

A special incentive for farmers, the milk diversion program, pays cash to farmers who cut back milk sales. These farmers agreed to market less milk in 1984 than they did during a specified base period of time.

Although only 21 percent of the commercial farmers opted to cut back milk production in 1984, Novakovic predicted in Dairy Industry and Dairy Policy in 1984 that, with production and government costs falling and consumption rising due to lower retail prices and widespread promotional campaigns, the scale may begin to balance out.

This balance may be possible, but, writes Novakovic "The problem will surely not be solved in 1984." After the program expires at the end of the year, much of the production reduced in 1984 will probably return in 1985, resulting again in surplus. Whether another milk diversion program will be planned for 1985 seems doubtful.

Are economists, farmers and government officials beating their heads against the wall with this problem while consumers continue doling out the cash? According to Robinson, "There is no widely accepted solution to the problem. The problems are political—quotas or price cuts would ‘solve’ the problem, but both alternatives encounter opposition." American consumers will continue to feel the pinch and farmers will remain up in the air over the issue. And still the government must buy more dairy products than it can ever possibly consume.
Cornell Board of Trustees Updates

Richard A. Church and Bernard W. Potter, have been elected as agricultural representatives to the Cornell University Board of Trustees. Church, serving a one-year term, graduated from Cornell in 1964 and subsequently became coordinator of undergraduate admissions. Potter, serving a three-year term, graduated from Cornell in 1943 and now owns Potters Farms. Faculty trustee Alan D. Forker, Professor of Marketing, will succeed Daniel Sisler on the Board for a four-year term.

Other newly elected representatives include Marjorie Leigh Hart ‘51, Robert Engel ’53, Nelson Schaenan Jr. ‘51, trustees at-large; Jacob Sheinkman ‘49, and Edward Cleary ’49, labor representatives; George Peter, employee trustee; Paul Tregurtha ‘58 and Edward Wolfson ’48, alumni trustees and Scott Witlin ’85 and Kenneth Williams ’85, student trustees.

Grants and Awards

The Arno H. Nehrling Spring Flower Show Award, created in honor of the late Arno H. Nehrling, a former Professor of Floriculture at Cornell, was offered for the first time at the New England Spring Flower Show last year. Nehrling served as Flower Show Manager of the Massachusetts Horticultural Society from 1933-1965. While at Cornell, 1921-1927, Nehrling had complete discretion over all courses in the commercial floriculture department and was solely responsible for the Cornell greenhouses. The award is bestowed upon the exhibitor who displays creative excellence based on various aesthetic criteria.

William E. Drake, agricultural and occupational education professor at Cornell, received a New York State Education Department Award for outstanding contributions in the field of occupational education. Drake, one of four individuals selected to receive this award, was selected from among 40,000 applicants from across the state. Drake has been on the College of Agriculture and Life Sciences faculty since 1960.

John W. Kelley, PhD ‘68, has been awarded the 1984 Natural Resources Extension Education Award for outstanding contributions in the field of natural resources and adult education. Prior to coming to Cornell 14 years ago, Kelley served as a biologist for the Delaware River Basin Commission and as a fishery biologist for the Maine Department of Inland Fisheries and Game. The award, sponsored by the Federal Cartridge Corporation, was presented to Kelley in October during the U.S. Department of Agriculture’s National Fisheries and Wildlife Extension Specialists workshop.

May Berenbaum, PhD ‘80, has received the $125,000 Presidential Young Investigators Award for 1984. Berenbaum received this honor for being “one of the Nation’s most outstanding young science faculty.” Berenbaum is currently researching insect-plant interactions with an emphasis on the evolutionary process and on the mode of action of chemicals which plants manufacture for self-protection. Berenbaum is presently an Associate Professor at the University of Illinois.

Robyn Lynch, BS ‘84, and Reid Campbell, BS ’85, are two recipients of the 1984 Anson Rowe Award. Winners of this $1,000 award are chosen on the basis of overall scholastic ability, a demonstrated proficiency in public speaking and/or radio and television and financial need.

Since her graduation in May, Robin has been continuing her studies in speech communication at the University of Nebraska. Reid, who will graduate in May, plans to pursue a career in public communication.

Robert R. Morrow, after 34 years of service in the Department of Natural Resources in the College, has been elected Professor of Forestry, Emeritus. Morrow, who retired in 1983, directed Cornell’s sugar bush project in Lake Placid from 1965-1983. However, he is best known for his extensive research on maple syrup production. He has also been involved in research into the application of energy saving methods for sap evaporation.

Media Services Wins

A Cornell Media Services radio documentary, “Drug Abuse: A One Way Trip Through Hell,” won the 1983 Health Journalism Award sponsored by the American Chiropractic Association (ACA). The 30-minute feature, broadcast over more than 110 U.S. and Canadian stations, focused on the extent of drug use and abuse in this country, its causes and its solutions.

Michael Veley of the Consumer Information Network, produced, wrote and narrated the feature. Others involved in the production of this award winning documentary are Elizabeth Giuliano, Associate Producer; Gordon Webb, Audio Producer/Mixer; and Jon Hilton, Musical/Score Producer.

The Cornell University Institute for Comparative and Environmental Toxicology (ICET) has received a grant of $103,107 from the Jessie Smith Noyes Foundation. Christopher Wilkinson, ICET Director, comments that “the contamination of groundwater by a wide variety of toxic chemicals is a major environmental issue of the 1980s.” The award provides for the continued support of a fellowship and research monies for a multidisciplinary project to study risk management as it pertains to chemical contamination of groundwater. The project, to be directed by Wilkinson, will also focus on enhancing individual and community awareness of freshwater contamination problems.
Bailey invites all to an Open House

by Beth Ann Fisher '84

Outside Bailey Hall, pure white snowflakes raced through the morning air and ice patterns formed on the clear panes of weathered glass. It looked like a peaceful winter scene on the Cornell campus. Yet, for high school students interested in attending Cornell, the morning of November 14, 1983 began their first real introduction to the University.

Inside Bailey, busy hands were putting on the finishing touches for the 25th annual Cornell Open House. This event, organized each year by the three statutory colleges at Cornell and their alumni associations and admission staffs, is one of the only informational days of its kind offered to prospective students. Packed full with seminars and question and answer sessions, the 1983 Open House, as all others before it, was sure to be a hit.

Anxious students and their families registered and began filling up Bailey Hall auditorium. The day began with a "welcome" from Steven Leigh '75, president of Human Ecology Alumni Association, and Charles Rehmus, dean of the School of Industrial and Labor Relations. They gave the visitors a bit of information about Cornell, past and present. Then the group was entertained by the colorful and informative film Cornell.

The College of Agriculture and Life Sciences conducted its own program for the day, starting with an introduction to the College and its academic programs by Richard Church '64, coordinator of ag college admissions. He informed the students about the variety of courses the College offers and urged the prospective students to visit the departments of intended study. At most departments' meetings, faculty and students were available to talk with the visiting students and parents.

At noon, a bag lunch and plenty of Cornell apples were ready for the guests, and an informal student panel discussion was held. Other activities planned for the day were a financial aid meeting, housing and student-life sessions and a seminar on minority life at Cornell. Throughout the day, campus tours left frequently for those who wanted to explore, and tickets to that weekend's Big Red football game were available.

Although many students may have been nervous about visiting Cornell, the friendly people and numerous activities did their best to calm everyone's nerves.

When the day ended, the students and their families traveled back to the corners of New York state with an increased understanding of what Cornell had to offer them and what they could offer to Cornell. One father remarked "What I wouldn't do to be a senior in high school looking at Cornell. I don't know who had more fun today, my daughter or me."

Visits to the campus are known to be one of the best ways for prospective students to get a flavor of life at Cornell. The 26th annual Open House certainly was a success, and this year's event, scheduled for November 10, is sure to follow suit.
Are you really my mother? see p. 6.
ABOUT THE ISSUE

"A horse is a horse, of course..." So goes the famous saying from the old you-know-what TV series. But, researchers in Cornell's College of Veterinary Medicine now lend new credence to the above-mentioned phrase. Read on to find out about an equestrian marvel. Also in this issue, we span more of the animal kingdom and take a look at turkeys, cockroaches, and deadly deer.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor; Edward L. Bernays '12. Faculty advisor: Jane E Hardy; Layout Advisor: Stephanie Lehman.
PSYCHOLOGY OF MANN

by Bonnie Reuben '85

101 Psychology of Mann
Fall, Spring, Summer, Morning, Afternoon, Evening. No credit hours assigned due to the varied course applications. Prerequisite: none. M T W R F 8:00—12:00 am, Saturday 8:00—6:00pm, Sunday 11:00-12:00pm.

A study of human behavior in Mann Library. Topics include avoidance behavior, isolationism, social behavior, sex roles, cognitive processes, perceptual learning, cross-cultural psychology as well as sleep and dreaming within the world of the Albert R. Mann Library.
The phenomena that Psychology of Mann cover are just recently being understood by investigators devoted to this new area of study. Yet, the knowledge that is presently available to us has further complicated matters by opening up new questions on the subject, in areas that touch on biology, sociology and even economics (i.e. library fines). Psychology of Mann is an issue of many issues; much like the diversified population of Cornell, it is a science of many faces.

Avoidance Behavior

Avoidance behavior is the term that describes a Mann Library user's tendency to avoid a segment of the Cornell community or a particular group of individuals. Usually, the person who exhibits such behavior is a member of the group he or she desires not to be associated with, or is tired of operating within that particular group, and seeks Mann as a haven. For example, senior electrical engineer Joyce Fries '85 admits, "I go to Mann to get away from the engineers. I'm in classes with them all day and that's enough for me." In this case, Fries indicates a tendency to avoid through substitution, informally rejecting membership in one category in order to belong to another.

Voyeurism

"Often characteristic of libraries is the display of what is known as voyeuristic tendencies," confirms Kari Pedersen '85, a psychology major. Unlike the voyeurism of traditional abnormal psychology, however, the visual component is less concerned with watching than simply looking for. This type of voyeurism existing in Mann has nothing to do with gratification derived from watching other individuals; rather, the basic premise is that the Mann voyeur only wants to seek people. "An example," according to Pedersen, "is when students spend their time in the library peeking into rooms just to see who's there." It's really an exaggerated perpetuation of childhood display and curiosity.

Isolationism

Mann Library users who walk directly upstairs to the stacks and withdraw from any activities involving social contacts are said to possess isolationist qualities. The key difference between isolationism and avoidance behavior is that the latter is done through substitution, whereas those students who put themselves in isolation will not substitute anyone or anything for the textbook.

Denial: A Defense Mechanism

Another popular phenomenon in the psychology of Mann is the application of defense mechanisms, psychodynamic processes that protect the individual from anxiety, shame or guilt.

Mannologists are very interested in denial as a form of rationalization, one type of defense mechanism. This process usually takes emotional conflicts into the sphere of intellect, ridding them of emotional and personal meanings, and as a result, works on
these problems as academic difficulties. Who are those who rationalize in the form of denial? Responds Pedersen, "People who put off work and go to the library for five hours and say they study."

**Sex Roles**

The Mann psychology of sex roles can be studied through many different behavior patterns or from many different perspectives, such as encouraging or discouraging social contacts and relationships.

Often, Mann Library is the setting for relationship development, by providing the opportunity to interact with others freely, in a non-restrictive environment (in contrast to the classroom). Because of the large number of people present in the Mann environment, students tend to try to break up the monotony of academia and devote some of their energy and attention to arousing interests in others. Once this initiated behavior produces interaction between two people, Mann Library is still able to stabilize and continue the contact between the individuals. Human ecology student Nancy Small '87 goes to Mann with the intent to study, but usually ends up "by the reserve desk, talking".

On the other side of the coin, students sometimes exhibit the psychological phenomenon of the flight or flight response, an autonomic response to a danger signal. "Consider," says Kari Pedersen, "the arts and sciences student who never ventures into the area of the ag quad. She exhibits the flight response, if upon breaking up with her boyfriend she decides to study in Mann Library. She knows he'll never look there."

Mann Library psychology deals with many more issues than outlined in this brief overview. Mannologists are now being more widely recognized by the Cornell community, because their work has such relevance in the understanding of a student's behavior in the college environment. Though Psychology of Mann can be studied from a scientific point of view as this thesis illustrates, the best way to fully comprehend the mentioned phenomena is to go to Mann Library yourself.
ET

by Fredda L. Plesser '85

No, the Steven Spielberg star of 1982 motion picture fame has not landed on earth, let alone at Cornell! ET, however, HAS come to the New York State College of Veterinary Medicine. Confused? Well, don't be. Contrary to popular belief, ET is not only a cute creature from outer space but a scientific technique called embryo transfer (ET). Using this procedure, three equine offspring, two foals and one donkey, were produced this summer from sterile mule mothers.

June 5, 1984 marked the birth of a 70-pound Thoroughbred horse to a 550-pound, eight-year-old mule. Goblet, as the foal has since been named, was the first horse born to a mule as a result of embryo transfer in the United States. Goblet's birth is part of an extensive collaborative research project between Dr. Douglas F. Antczak, BA '69, Assistant Professor of Immunology at the James A. Baker Institute for Animal Health, and Dr. W.R. Allen, Director of the British Thoroughbred Breeders Equine Fertility Unit in Cambridge, England.

The project was born of Dr. Allen's research in the late 1970s in which he performed embryo transplants between donkeys and horses, two distinct species of the genus Equus. The outcome of these transplants yielded very interesting results. Horse embryos transplanted into donkey surrogate mothers usually developed normally to term while donkey embryos transplanted into a horse's uterus aborted 21 out of 22 times. The results led the two researchers to hypothesize as to why the horse's uterus rejected the donkey conceptus. According to Dr. Antczak, "We wanted to determine if the female mule which carries both horse and donkey genes would express the appropriate uterine environment for the development of either a horse or donkey ..." In other words, the mule acts as a neutral vehicle for studying what can go right and wrong in equine pregnancies.

"These experiments were undertaken to gain information about the significance of immunological responses associated with equine species, including donkeys, horses and mules," Antczak says, adding that important genetic information may be gained by studying equine pregnancies. For
instance, he hopes to study the artificial creation of identical twins by splitting an embryo and putting the two halves in different uterine environments, one in a horse and the other in a mule. By studying the development of the twins, non-genetic effects on development may be determined.

In addition to its scientific implications, ET permits females of a species that usually produce one offspring per year to produce many more. A valuable mare can be “recycled” more than six times in a given year. Moreover, mares with medical conditions not permitting them successfully to carry and deliver a foal, can now produce offspring.

How was this embryo transfer accomplished? One of the first steps was to choose a mule which was able to receive the embryo. Mules were divided into two categories, those that had active estrus cycles and ovaries and those that did not. Since mules with no ovarian activity have virtually no progesterone in their systems, they could not be expected to carry a conceptus to term. Therefore, mules with no progesterone were not used. The fertilized eggs of mares were then flushed from the uterus and surgically implanted, by Dr. Allen, into the uteruses of recipient mules.

Once the embryo is implanted there is no guarantee that the mule will remain pregnant. Five of the 11 recipient mules were made pregnant during this project. Of the five pregnancies, one aborted spontaneously while the pregnancy of the other mule was surgically interrupted for examination of the development of the placenta in the mule’s uterus.

The delivery of the first Thoroughbred, Goblet, was the most difficult. Part of this difficulty may be attributed to the fact that Goblet’s genetic parents each weighed over 1,000 pounds while the surrogate mother was much smaller, 550 pounds. Dr. Antczak notes that this is an interesting example of what may be the limit of the difference in size between donor parents and recipients. Goblet’s legs were long for his mother, although average for a Thoroughbred foal.

Goblet was also born with a cleft palate, a fairly rare defect in horses and one that is not thought to be related to embryo transfer. The horse’s palate was surgically repaired at the Large Animal Clinic at Cornell. Goblet appears to be fine (so fine in fact, that he ripped the author’s shirt with his mouth in a gesture of playful friendship!)

The other two mules foaled a bit more easily, producing a second foal on July 23 and a donkey on August 12. Crafty Red Bear, the second foal, and Barbarito, the donkey have been developing very well. All three frisky youngsters have been weaned from their mothers which were all good milk producers and very protective of their young.

The three mules that became pregnant were bought in the Amish country of Pennsylvania. The donkey that donated the embryo was purchased through the United States Bureau of Land Management “Adopt-A-Horse or Burro” Program. The Thoroughbred embryos came from the herd at the Cornell Equine Research Park.

Surrogate mother Shelly out for a run with Crafty Red Bear, a Thoroughbred foal and also her offspring.
How can one describe the student body in the College of Agriculture and Life Sciences; farmers in overalls and straw hats? No. It is a melting pot with an incredible amount of diversity between Americans and foreign students who represent 98 different geographic areas.

According to statistics provided by the International Student Office in Barnes Hall, 1,497 foreign students studied at Cornell University during the 1983-84 academic year, and 357 studied in the ag college.

Due to the cultural diversity within the student body, the College of Agriculture and Life Sciences has become a rich source of knowledge about the world in which we live and its people. By understanding foreign cultures, we can make a big step in overcoming cultural barriers.

While a period of adjustment exists for all foreign students who come to the United States to study, it is easier for some to overcome the cultural barriers than others. Some students have travelled extensively and adapt more readily to Cornell and the American way of life.

Yassir Islam '88, an undergraduate in crop science, has lived all around the world, most recently in Africa, India and England. Being fluent in English as well as practiced in adjusting to foreign cultures, Islam has found little difficulty in adjusting to living and studying at Cornell.

Frederique Lanoe '86, an animal science student, was born in Senegal, West Africa, and moved several times before settling in New York City with her family a few years ago. Although Cornell is the 12th academic institution that Lanoe has attended, her adjustment has not been easy. A language barrier exists for her which makes meeting people and making friends a problem.

Iona Malinow '87, from Puerto Rico, came to Cornell in the fall of '83 to study business and has enjoyed the flexibility appreciated by all foreign students to change their field of study. Malinow is now a biology major.

Adjustment has been difficult, but a Cornell education is very important to her and worth the struggle to adjust. Malinow faced a strong language barrier which initially kept her from participating in small class discussions or asking questions in large lectures. While understanding came easily, speaking English was by far more challenging. Like Lanoe, it was difficult to meet people and hold conversations. Malinow also feels that her academic average has suffered. “If English were my first language, I feel I could have gotten an average of an ‘A’ instead of a ‘B’ last year.” Thanks to the help of professors and teaching assistants in explaining material, Malinow has improved her English and built up her self-confidence. She is currently a course assistant in Biology for Non-Majors recitation, a weekly review seminar for students in biological principles. Malinow also helped to found the Association of Puerto Rican Students of Cornell in 1983, and is currently its secretary.

The Committee on Special Education Projects (COSEP) provided the most help for Malinow who highly praised the organization. “You can go in with any kind of problem, and they will help you.” Islam, Lanoe and Malinow have all enjoyed living in the International Living Center on North Campus with students who face similar problems of adjustment. Despite their language barriers, Lanoe and Malinow have learned enough slang to express their appreciation of living with other foreign students, claiming it is nice to know “we’re all in the same boat.”

Besides the language barriers, cultural barriers had to be overcome. The American culture is difficult for some foreigners to get used to, but Malinow felt that the warmth of the students in the ag college has helped. “I feel that the students in the ag school are there because they like what they are doing not just to learn how to make money.”

One’s cultural background plays a crucial role in learning to adapt to Americans and their way of life. Two African students, Mpoko Bokanga and Mark Vandeyar, were interviewed. Their extreme cultural backgrounds strongly influenced their conflicting views of Americans.

Mpoko Bokanga, a PhD candidate in food science, completed several years of education in Zaire, where he was born, before coming to the United States. “I came to the U.S. because this is where one finds the best education in the world,” he said. The process is not easy, however.
Many years of extremely competitive schooling and testing must be passed in Zaire before a student from Zaire may come to this country and study. Once here, another struggle has to be overcome, passing the cultural barrier.

Bokanga's biggest problem was adjusting to the lack of social interaction. It took some time before getting used to the fact that Americans eat alone and do not share that feeling of family enjoyed in Zaire; Bokanga lost his appetite the first few days that he was here. "Americans don't talk to strangers, but in Zaire there is no such thing as a stranger," Bokanga said.

Bokanga misses Monday morning bus rides in Zaire when he could hear everyone's news of the weekend. It does not take a foreigner to notice the "Monday-morning-blues-syndrome" in this country as people sit with long faces and arms crossed. Bokanga did add, however, that while it was hard to establish initial contact with Americans, they are warm people once they "open up."

Mark Vandeyar, a PhD candidate in genetics from Johannesburg, views Americans differently. Vandeyar is on an exchange program through a Fulbright Scholarship. He attended the University of Witwatersrand (Wits) in Johannesburg for six years where the programs are generally rigid and highly specialized. Vandeyar explained, "Despite the rigidity, competition and constant pressure are non-existent, and grades were considered secondary (very unlike Cornell). The relaxed atmosphere tended to encourage the cultivation of other interests and participation in extra-curricular activities."

Politics play an important role in the lives of the students in South Africa. "While American students seem indifferent and apathetic, most South African students are very politically involved." The major pastime activity was politics, and in Vandeyar's case, left wing. In comparing the American educational system to Johannesburg's, Vandeyar explained, "I was a member of the Student Government Body which wielded more influence than anything at Cornell. Students dictated courses to be taught or dropped and had an active voice in all university affairs including teachers to be employed."

While the educational system is a bit more relaxed in South Africa, the social structure is extremely rigid and racist. Vandeyar enjoys the liberal social structure in this country and the ability to converse with anyone on any social level. Although Vandeyar is very happy in the United States, he finds it difficult to reconcile our liberal social structure yet politically conservative way of thinking.

When Vandeyar was asked about his initial reaction to the American people, he mentioned the misleading portrayal of Americans on television. Through American television, South Africans are lead to believe that all Americans are "liberal, well-educated, well-travelled, open-minded suburban or metropolitan people." He was surprised to find the politically close-minded conservative nature of the people in the United States. "But," he said, "the Big Mac Attack could only happen in America."

While it takes time to adjust to cultural differences in any society, none of the foreign students expressed regrets for coming to the United States to study. Constance De Solages '85, came to the U.S. from France to study horses and is presently an animal science/international agriculture student. She summed up adjusting to American culture by saying, "American people have to be seen as a different culture, not as a continuation of the European way of living. As a result, one can adjust and not be confronted with some unrecognized cultural differences."

Foreign students, Jean Louis Amann '85 (France) and Mark Vandeyar '85 PhD (Johannesburg) enjoying a break in the Alfalfa Room in Warren Hall.
Cadbury chocolate bars, Smithwick's beer, beautiful farmland dotted with sheep and rocky cliffs jutting into the Atlantic Ocean are some of the favorite images that come to the minds of New York State College of Agriculture and Life Sciences students Mary Jones '85 and Sara Jo Lerner '85 when they look back on their junior year. They were two of four ag college students who participated in the junior year abroad study program at Trinity College, University of Dublin in Ireland last year.

The ag college began the program 19 years ago. It was originally available only to students specializing in genetics, but is now open to any ag college student. The program is in the science division of Trinity College, so most participants are from the Division of Biological Sciences. Students apply for the program in the fall of their sophomore year, and they must have a cumulative grade point average of B- or above. A panel of faculty and previous participants in the program then interviews the applicants and selects four for the program. Jones said that the panel looks for people with a good attitude about going and who will be positive representatives of Cornell University and the United States.

Academically, Trinity is much less demanding than Cornell, according to Lerner and Jones. "No one buys texts because you do not need to read them, and even though the classes are small, the professors never call on anyone," Lerner said. The quality of education varies widely from department to department. Jones, who is a genetics major, said she felt the courses she took in genetics were more thorough than any available at Cornell. On the other hand, Lerner, who is a neurobiology and behavior major, said, "I feel like there is a hole in my academic career." Her classes were way below the caliber of those at Cornell. Students participating in the program receive 30 credits.

The light work load gave the women plenty of time to explore Ireland. The program does not provide housing, so both women found their own accommodations in Dublin. Jones shared a flat with another girl, and Lerner lived in a house with an elderly Irish woman. Lerner said there is not a lot to do in Dublin, and leaded gasoline and coal heating cause heavy pollution, so she and Jones liked to get out and explore the magnificent countryside. Both women went horseback riding and orienteering on the weekends.

Lerner also spent a lot of time reading for pleasure and watching television, which is unusual for her, she said. Jones was amazed to find herself with eight hour stretches of free time, she said.

The Irish students were generally

Cork City in Ireland in its beauty when decorated for Christmas.
very friendly to a point, but had a reserve that was hard to get past, Jones said. Lerner said the stereotype of the overly friendly Irishman is false. "People in the Bronx are just as friendly," she said. Students at Trinity participate in societies for sports and other activities. The women were in a film society. They sometimes went to pubs with the Irish students after class. Jones said it is a very different environment from Cornell because most of the Irish students still live at home. Even at the college age, men and women remain strongly separated, Lerner said. They sit on different sides of the classroom and eat lunch at different tables. Jones thought they were partly influenced by their Catholic upbringing.

Both women thought that the lifestyle as a whole was much slower paced than in the United States. Lerner also pointed out that in many ways Ireland is still an undeveloped country. "There are a lot of people who do not even have a phone or a bathroom, and there are few luxuries," Lerner said.

The women also got a chance to travel. Lerner traveled in Europe during a four week break at Christmas and went to Israel for a month after the program ended. Jones spent Christmas in Dublin with visitors from home and traveled in Europe during a three week break in March.

Travelling in Europe made Jones think a lot about being an American. "All of a sudden you represent a whole country, and people base opinions on what you say," Jones said. She realized that there are so many things she did not know about or even think about. Lerner said she often found Europeans who knew more about the United States than she did, although many people think the television show Dallas depicts the typical American lifestyle. "They will look down on Americans and make fun of us, but deep down, they really want to be like us," Lerner said.

Although they learned things they did not like about America, both women said they appreciate their country much more now and are happy to be home. They are also happy to be back at Cornell. Lerner said she is already feeling the pressure of work, but now she likes it because she realizes how much Cornell has to offer. Jones said that now that she realizes that there is so much going on in the world, little details of daily living do not bother her as much. "I know so much more now, and I can even answer the geography questions in Trivial Pursuit."
CORNELL
ONCE REMOVED
by John Rudan '85

There is one part of the College of Agriculture and Life Sciences that most Cornelliens will never see. It is located really “far above Cayuga’s waters,” about 50 miles to be exact. It is far away from the familiar sights of Mann Library, Roberts Hall and Warren Hall. What is it? It is the New York State Agricultural Experiment Station in Geneva, or “Geneva Station” for short.

The Geneva Station conducts research and experiments within many aspects of agriculture, including horticultural sciences, entomology, plant pathology, and food science and technology.

To find out the history of Geneva Station and its relationship with Cornell, all one has to do is talk with Professor Emeritus Paul J. Chapman, PhD, '28, who has been working at Geneva Station for over 50 years. Chapman’s first and foremost role was chief of research in the entomology department at Geneva. Now, he is the unofficial “historian” of Geneva Station, and soon will publish a book on its history.

The beginnings of Geneva Station were almost 100 years ago in 1880, when the New York State Legislature passed an act for the establishment of an agricultural experiment station to “promote agriculture through scientific investigations.” Over 100 towns made a bid for the site of the station, and it was Geneva that was finally chosen.

Chapman noted that Cornell, at this point, had already established an informal experiment station in the Agricultural Department (as the ag college was referred to back then) in 1879, one year previous to the State Legislature’s decision to establish one.

However, this experiment station was not recognized at the University because “the members of the upper colleges were ashamed to have the farmers around,” according to Chapman. And although Cornell did bid to have the formal experiment station built in Ithaca, it was clear the Administration really did not want to have anything to do with it, as the bid half-heartedly stated the station could be built at Cornell if run “without interfering with the regular duties of the professors.”

In 1882 the Geneva Station opened its doors with 130 acres of land, five full-time staff members, and a $20,000 budget. Although the Station started out with both plant and animal research, the latter was phased out in the late 1880s and eventually incorporated into the ag college at Cornell.

For about 50 years Geneva Station ran independently of Cornell, but in 1923 another act of the State Legislature made it an official part of the University, and also a unit of the State University of New York.

From 1923 until the present, Geneva Station has been an integral part of Cornell, and since 1943 when the dairy research branch moved to Ithaca, the Station has been conducting research and experiments involving the production, protection and processing of fruits and vegetables.

Besides the growing of produce at Geneva Station, Professor Chapman pointed out the growth of the Station itself. In 1982 the Geneva facility operated on 650 acres with substations in the Hudson Valley and Fredonia, N.Y. The yearly operating budget has grown from $20,000 to nearly $9 million and there are 350 full-time staff members as well as 100 seasonal workers, 32 graduate students, and 37 foreign scientists. “These figures may seem impressive,” said Chapman, “but our budget is only 1.5 percent of Cornell’s total academic budget, and that is a very small part.”

Despite an apparently small budget, Chapman alluded to the noteworthy work done at Geneva Station: “We have distinctions which make us readily identifiable,” he said. And it is definitely true that Geneva Station has its share of distinctions: the “Cayuga White” grape used by New York state winemakers to produce a fine varietal wine was developed at Geneva Station; the apple you had for lunch, if it was a Cortland, Empire, or one of four other varieties, was developed at Geneva Station. And talk about distinction: Dr. Roger Way, a professor of pomology at Geneva Station, was recently profiled in People magazine for his work with apples.

Professor Chapman listed many more accomplishments of the Geneva Station staff, each of them impressive in their respective fields. And Chapman, too, was impressive with his knowledge of the Geneva Station.

“We are 50 miles from Cornell,” he said, “but we still feel like we are part of the University, although the people at Geneva Station are really close, almost like a family.”

Chapman had to laugh as he concluded, “Some people refer to us as the ‘Geneva Experimental Station.’ I think after being around for over 100 years, and looking at the quality of work that has been done here, we are definitely out of the experimental stage.”
The New York State Agricultural Experiment Station at Geneva is a rather overwhelming title for a setting that more closely resembles a small college in a quaint, upstate town.

The fruits of their labors: Cortland apples and Cayuga White wine, two of Geneva Station’s many developments.

Paul J. Chapman is Geneva Station’s own historian. It’s not an official position, but his knowledge of its work is extensive.
Turkey sausage, shown here, takes the place of pork sausage but has much less fat than the pork product.

Think of turkey. What comes to mind? A beautifully set table with a roasted turkey sitting in the middle, surrounded by sweet potatoes, cranberry sauce and pumpkin pie?

Perhaps. But when some people think of turkey, they think of hot dogs, ham, pastrami, bologna, sausage and salami. Sounds silly, doesn't it? But it's not. It's part of the new "turkey trend," a trend responsible for increasing the per capita consumption of turkey in the United States by nearly 80 percent in the last 20 years.

It all began in 1961 when Dr. Robert C. Baker, MS '61, now chairman of the Department of Poultry Science at the New York State College of Agriculture and Life Sciences at Cornell, began work with several colleagues on the chicken frank, a frankfurter made only from chicken meat. Although the chicken frank was not commercially introduced in the United States until 1970, the revolution was well under way. Soon after the chicken frank came the turkey frank, and more recently followed various other products including turkey ham, turkey bologna, turkey pastrami, turkey salami, and turkey sausage. The only meat used in any of these products is turkey, yet each of these products tastes remarkably like the meat it imitates.

There are several reasons for these new developments. According to Dr. Baker, the only time people would eat turkey, available almost exclusively as an entire roasting turkey, was during a festive occasion such as Thanksgiving, Christmas, or Easter. "They would have leftover turkey forever," Baker says, and adds that the turkey market was hurting due to the turkey's use as only a special, festive food. Baker says that new turkey products were developed in order to help the turkey market. "The turkey people were forced into further processing in order to survive."

But not only did the new turkey products help the turkey market by increasing the use of turkeys, they also increased the use of turkey parts which were not as popular by themselves. The new products use meat from the thighs, back and neck of the turkey, meat which is not eaten nearly as much as turkey breast.

The process by which the new product is made from this meat is fairly simple. For the turkey ham, the meat must be in fairly large pieces, so it is deboned by hand, and salt is then added. The meat is now "tumbled," or beaten, and a cure, nitrite, is added to control harmful bacteria and create the proper color. Seasoning is also added. Everything is then mixed and packed into a casing, similar to a bologna casing, and cooked. When cooked, the liquid protein solidifies and binds together, giving the turkey the consistency of ham.

For the turkey frank and turkey bologna, the meat must be much finer.
Can you tell the difference between a turkey frank and a beef frank?

The raw meat (for all of these products the meat must be raw when processed) is mechanically deboned. This is done by first grinding the turkey coarsely, bones and all, so that the pieces are about one inch long. The meat is then put through a cylinder with small holes and force is applied. The meat is soft enough to pass through the holes but the bones and skin are not, so what is left is turkey meat which resembles ground beef, but a bit lighter in color.

It is the seasoning which gives the turkey the flavor of ham. "Meat does not have a lot of flavor," says Baker. "It is the seasoning you put in it." The turkey pastrami gets its pastrami flavor from the seasonings and spices used in the processing, which is the same way beef pastrami gets its flavor, Baker says. But there is more to flavor than meets the palate.

When one says he or she doesn't like the flavor of some meat, Baker says, one really means that one doesn't like the texture of the meat. According to Baker, texture plays a role in people's taste perception, and it is therefore necessary to make the turkey the same texture as the meat it is imitating. Once the correct seasonings are added to the turkey and the turkey is specially processed, you have turkey which looks and tastes like another meat. But the turkey meat is lower in fat than most other meats.

But just how good are these turkey products, and do they really taste like the original? Charlotte Bruce, a research support specialist in the Department of Poultry Science at Cornell, is a regular eater of turkey ham and she loves it. "I'm beginning to judge all ham by it," she says; its having less fat than ham is another reason she buys it.

A taste test conducted in 1981 in Arkansas also shows that turkey ham is more than just a cheap way to sell turkey. The test consisted of 560 participants, each of whom tasted both pork ham and turkey ham. None of the participants knew which ham was which. Out of the 560, 288 preferred the turkey ham and 272 preferred the pork ham. This shows that the turkey ham deserves its title.

One may wonder how a product that uses no ham can be called a ham. The Code of Federal Regulations states that "The word 'ham,' without any prefix indicating the species of animal from which derived, shall be used in labelling only in connection with the hind legs of swine." What this means is as long as the product title includes the proper meat used, it can be called ham. But according to Bruce, what is really important is what ingredients are listed on the package. "The labels tell all," she says.

But just because a company tells you what is in the package doesn't mean people will buy it. In fact, in some instances it would be better for a company not to say what is in the product. Baker says that some people are not always ready for new products, just as they weren't for the chicken frank, demonstrated by the fact that it took seven years to reach the national consumer market after it had been developed and tested.

One example of this today is a frankfurter made from rabbit. Baker and several colleagues have developed hot dogs made with both chicken and rabbit. In taste tests more people preferred the franks made with rabbit than the beef franks, although the people were not told that the meat in the franks was rabbit. However, Baker says that although making a rabbit frank is possible, few people would buy it. "Psychologically it will not sell right now."

Although these new products have helped the turkey industry greatly, it is difficult to say exactly what will happen to the ham and beef industries. "Bologna did not take the place of roast beef," says Bruce, and it would not seem likely that turkey ham will take the place of roast turkey. One thing that the turkey products offer is one's favorite meat taste with less fat, and at a lower price—turkey ham is usually at least fifty cents less per pound than pork ham.

With all of these benefits from turkey products, will they replace the roasted turkey on the table during Thanksgiving and Christmas? Baker believes that they may. He says it is possible that many families will exchange their roaster for another turkey product, citing not only price (you are also paying for the bone and skin when you buy a roaster) but the convenience as well. And the fact that many ovens, especially most microwaves, are not big enough to hold large turkeys makes it more likely that some people will buy different turkey products.

But there are still those who will not give up their whole and fully dressed traditional bird. Bruce believes that most families will stick to the full roasting turkey for tradition's sake. Although other products may be made from turkey, they do not carry the meaning and tradition that a roasting turkey does. "While they come from the same source," Bruce says, "to some it may be like comparing the beef hot dog with a rib roast."
OH DEER!

by Madeline R. Marrero ‘86

New York forests and fruit orchards face a subtle enemy that though admired for its gentle beauty can damage an area of land. That enemy—deer, has spurred on research for methods of deer damage control and management.

Natural population controls such as severe winters, mountain lions, and wolves have declined, while food and cover have become more abundant, so that deer populations have increased rapidly. Cornell University wildlife ecologist Aaron N. Moen says, "For fruit growers, deer attacking their trees means a direct threat to their primary productive unit. It would be like predators attacking a dairy farmer's cattle."

The problem has also escalated because there has not been enough removal of does. Severe winters cause weaker fawns to die. However, mild winters in recent years have insured the survival of does. Partly because of hunting the average life span of deer in New York is ten years, but breeding can begin as early as seven months.

Moen adds: "A doe need only produce one female fawn in her lifetime and the doe is replaced as a breeder. Healthy adult deer usually produce two fawns each year."

James W. Caslick, senior extension associate for the Department of Natural Resources at Cornell, points out that fruit farmers have increased their plantings of dwarf trees to increase yields of high quality fruit. Both Moen and Caslick say they are also easier for deer to eat.

In the winter deer prefer to eat dry, woody twigs, and they need about three pounds of dry forage a day to sustain themselves. Moen explains that apple twigs weigh about .25 grams each, so it takes about 100 twigs to make an ounce; a deer must eat about 4,800 such twigs a day. Moen says, "If you had a 100 deer for 100 days in a given area, each eating three pounds of dry forage a day, that would mean 30,000 pounds or 15 tons of forage eaten in 100 days."

Moen explains that the deer population has increased to such an extent that deer have become pests in some areas and damage to an

The increased use of dwarf trees in New York state is shown here.
"...We have more deer than we have ever had before."

orchard's productivity can be devastating.

Caslick asserts that in New York state there are areas that have excessive numbers of white-tailed deer, from the farmers' point of view. "Though deer are desirable for their aesthetic beauty, generate millions of dollars each year through hunting-license sales, and can be an important food source, they are having a subtle but great effect on forests, fruit orchards, crops, and even the number of highway collisions," explains Caslick.

There are several methods for controlling deer damage, some of which might seem like home remedies. A deerproof fence is the most effective method, according to Caslick, who has been recommending them to orchardists for more than 15 years. Wire-mesh fencing and electric fences may seem expensive to install, but they soon pay for themselves where deer damage is serious, he says.

Moen recalls that, "A few years ago the number of deer on Tompkins County Airport's runways was large, so that planes could neither land nor take off safely. They fenced the airport which cost about $250,000. Though the fence is not complete it has helped a lot by keeping deer out."

For many farmers, installation of fencing seems too costly. This is one reason that Moen's method for farmers to predict the potential for deer damage is important. Farmers must ask themselves: How much does it cost to establish a new orchard? How much are they willing to spend to protect that investment? The costs to protect an orchard may be too high for the expected rate of return to make that investment useful. Moen explains, "Orchards do not begin bearing fruit for about five years, depending on the variety and the kind of tree. It takes a while to grow, whereas deer are eating from these trees every year. Severely damaged trees rarely survive these attacks."

Deer hunting is the most cost-effective method of controlling deer. "Most of the deer reduction is done during the hunting seasons. It is a carefully regulated method in New York, and now includes consideration of recent deer damage to local crops," says Caslick. Moen believes that other methods such as chemical controls, and dangling nylon stockings are of questionable value. He says it will only keep them away if there are not too many deer and they are not too hungry. It is not a physical barrier.

Deer do not eat only apple trees, but also vegetables, corn, wheat, hay and spring flowers. Moen now works on managing an overpopulation of deer in a small area in Massachusetts. This land area is meant to be a natural and historic site. Since hunting is not allowed on that area, the deer population has increased up to five times what it should be. "In the past two years, 40 deer, all fawns, have died. Deer are underweight and starving," Moen explains. In this area deer have literally taken over and altered the habitat. He says that there are no flowers such as trillium and violets in this area because they have no chance to grow.

According to Caslick other parts of the country are also struggling with these problems. At a recent conference he chaired on this topic at Cornell, annual deer damage to crops was reported to be between $16 and 30 million in Pennsylvania, and more than $10 million in Wisconsin. Deer damage to Pennsylvania forest land was estimated as $13 per acre, or more than $100 million each year, in that state alone. One could wonder why there are not enough forest areas to feed these deer—but as Caslick notes: "Deer like young trees and it takes a long time for forests to regrow. This problem is compounded simply because we have more deer than we have ever had before."
John Smith is accustomed to waking up in the middle of the night, stumbling into his kitchen and fixing himself a sandwich to tide him over until the morning. But tonight John is in for a big surprise. While he is thinking of ways to silence his grumbling stomach, a bunch of nasty insects are at work attacking every crumb and droplet of water accumulated under John's refrigerator. Tonight, John Smith's kitchen is being invaded by the dreaded cockroach.

The cockroach is a common household nuisance which has been plaguing private residences, food service operations, and those who live in building complexes for decades. According to Prof. Edgar Raffensperger, of the Department of Entomology in the College of Agriculture and Life Sciences, cockroaches are the number one indoor pest problem.

There are hundreds of different species of cockroaches, all varying in size and emitting a distinct odor. There are four common pests that frequent New York's cities and towns. These are the German cockroach, the American cockroach, the Brown
Banded and the Oriental cockroach, which is most often found infesting dwellings in New York City. These four species make up 99 percent of the cockroach cases discovered in New York each year. Here on campus one is likely to find a German cockroach crawling around in a dorm room or in an academic building. This cockroach is a small, light brown bug, half an inch in length.

Although many people might think that having cockroaches in their homes is a sign of a dirty household or that cockroaches are only found in certain kinds of places, this is not true. “Cockroach infestation is universal,” says Raffensperger. He explains that it is extremely difficult to exclude cockroaches from any home or food establishment because it is virtually impossible to keep these places spotless. Cockroaches will attack any crumbs or droplets of water they can find.

Cockroaches thrive on warmth, darkness, moisture and food, and they can usually be found living comfortably under anyone’s kitchen sink or in between cracks and crevices. You can even find a few of them happily nestled under a wet dish rag. “These four essentials, warmth, darkness, moisture and food are heaven for cockroaches,” says Raffensperger. But even if your home has just one of these four elements, you are still bound to find cockroaches crawling around. As for the kinds of food that the cockroach prefers, it is not a picky eater. Cockroaches will eat almost anything organic which is in a state of breakdown. Thus the cockroach can be found dining on ice cream, soap, cake crumbs and most other crumbs of food.

Cockroaches are extremely tough and durable and according to Raffensperger, it is very difficult to conquer the cockroach population. It takes 60 days for a generation of cockroaches to be produced, with the female generating forty to fifty eggs per generation. This adds up to millions of cockroaches over the years and even when you take into account the loss of many cockroaches due to extermination and other unpleasant deaths, a roaring population can still be maintained. You can cut off a cockroach’s leg and it will regenerate another. You can deprive the female of its mate and it can sometimes still produce a family.

Cockroach control continues to be a problem due to the resistance cockroaches are able to build up against certain insecticides. The cockroaches have chemical pathways which can be altered to enable them to avoid the toxins. They also develop behavioral mechanisms which aid them in avoiding the sprays. “For instance, spray the tops of shelves and the cockroach will learn to run upside down on the bottom of the shelf,” says Raffensperger. Because such behaviors are adopted by the cockroach, it is extremely difficult for homeowners to get rid of these pests.

A popular spray which the cockroach has a hard time adapting to is a natural insecticide called pyrethrum. This spray is made from daisies, and is most commonly used as a flushing agent to drive cockroaches out of cracks and crevices. It is the only spray that can be used around food establishments because it has such a low toxicity to humans.

People often fail to remember that generations of cockroaches last for a couple of months and although a single spraying of insecticide looks good for the moment, an effective treatment must be kept up for at least four to six months. Even under adverse conditions the egg case will remain dormant for weeks and if it has not been sprayed directly with an insecticide, the infestation will continue.

But not to fear, for there are precautions that the homeowner can take to discourage cockroaches from infestation. These include wiping surfaces clean, hanging up wet towels, cleaning under the refrigerator, repairing leaky pipes and filling the cracks found in walls. A good home treatment is to sprinkle boric acid under the sink, into nooks and crannies, near pipes and under the refrigerator. Raffensperger says that the cockroach will usually track through the boric acid, lick itself and then become dehydrated from the acid.

Since cockroaches carry bacteria on the surface of their bodies and are known to frequent dirty areas, Raffensperger recommends throwing out any food a cockroach comes into contact with. “They carry a real jungle of disease and fungi,” he says.

Raffensperger has one last bit of advice for arming oneself against this indestructible insect: “Before going into the kitchen, position yourself well in the doorway and then turn on the lights.”
Getting to the Bottom of

How many times have you had the jarring experience of having your car almost swallowed by a pothole? You have every right to be upset about potholes, not just because they shake you and your passengers up when you hit one, but because they are expensive and dangerous.

Lynne H. Irwin, an associate professor in the Department of Agricultural Engineering and director of the Cornell University Local Roads Program, has spent the past four years working with a Falling Weight Deflectometer (FWD) and computers in an attempt to make potholes obsolete.

Potholes cost American motorists about $37 billion a year, or about $335 per vehicle. Damage to steering and suspension systems, tires, brakes, mufflers, extra fuel used to avoid potholes and increased insurance rates from accidents on inferior roads all contribute to this figure, Irwin said.

Potholes are also very dangerous. According to Irwin, roads in poor condition are one of the primary causes of highway deaths.

With the FWD and computer technology, it is now possible to accurately predict when, where and how to repair roads. The FWD can also tell what materials to use and how thick they should be applied when roads are rebuilt. This could reduce the expense of operating and maintaining roads to 10 percent of current costs, while substantially improving our roads at the same time!

The FWD is a nondestructive pavement tester. It has a large steel plate that can drop between 1,500 and 15,000 pounds onto the pavement, simulating weights between Volkswagens and loaded semitrucks.

Six sensors located within inches of the falling weight measure the impact on the pavement. A computer connected to the sensors records the data. “The breakthrough that we have made has been the interpretation of this data by using layered elastic theory and computers to solve the mathematics of elastic layered systems. This gives us some fundamental information, such as which layer is the weak one,” Irwin said.

In other words, roads are composed of layers: surface, base, and the native soil; each layer has a certain amount of elasticity. By using the FWD and computer technology, it is now possible to determine what each layer is composed of, its strength and its elasticity.

The first FWD was built at Cornell Aeronautical Laboratories in Buffalo during the 1960s. The French and Danish refined the apparatus during the mid 1970s. When Irwin joined the Cornell faculty in 1973, he tried to get funding to buy a FWD. The National Science Foundation granted the money to buy one in 1980 and he has been conducting research with it since then.

Most of the nation’s highways have already been built; the challenge now is to rehabilitate and maintain the roads as effectively and inexpensively as possible, Irwin said.

A new road starts to deteriorate as soon as it is built. After a period of time, depending upon whether or not it was properly constructed for the amount of stress it undergoes, it reaches a certain stage where it literally goes to pot very quickly, he said.

“The current practice has been for highway department officials to drive around and look for cracks and/or potholes in the roads. By then it’s almost too late; these are signs of the onset of rapid deterioration,” Irwin said.

“The officials then must approach their local government for permission to fix the roads. It often takes three years to schedule a certain road for repair; meanwhile the road is rapidly going downhill,” he said.

When roads are badly deteriorated, they are often dug up and reconstructed, which costs about $650,000 per mile. Roads repaired by applying a two-inch asphalt overlay just before potholes appear cost about $65,000 per mile. “Either method of rehabilitation may last about 15 to 20 years. However, if the overlay is built on the deteriorated surface, it is only a ‘bandaid repair,’ ” Irwin said. Within a year or two the potholes begin to reappear because the sublayers

**Discussing research are (l. to r.)**
Lynne Irwin, Charles Ditmars, and Weishih Yang.
are too weak. The problem is accelerated if heavier vehicles are using the road than were planned for.

Irwin recommends that when a road is to be rebuilt, the highway officials use the nondestructive evaluation techniques developed by the Local Roads Program. These would tell them if the base is satisfactory and how many layers of asphalt would be appropriate for the predicted vehicular weights.

Soon after the road has been rebuilt the FWD could test the road and determine how often an overlay or a chip seal, which is a spray of asphalt with stones dropped on top, should be applied. The seal costs about $6,500 per mile and would be applied before cracks and/or potholes started appearing.

Irwin has also been researching the possibility of recycling road base material. "A few years ago when a road was rebuilt, the base was dug up and thrown away," Irwin said. Now there is a lack of good base material available, however, so he has found that when certain additives, such as cement, are "rototilled" in, they stabilize the base. This costs about one-fourth as much as replacing it with new, and probably inferior, base.

The asphalt surface can also be recycled when it is removed to stabilize the base. The road can be resurfaced using the old asphalt by adding a little asphalt emulsion. This method saves about one-sixth of the cost of new materials.

Soon Irwin will write a report on his research findings and present it to the state's Department of Transportation in an effort to convince them to purchase a FWD to test New York State's 109,000 miles of roads. "The cost of a FWD is around $100,000, what it costs to apply one inch of asphalt to a two-lane road for four miles. I firmly believe a FWD would be a worthwhile investment; it would help cut highway operating and maintenance costs considerably. By properly building and then maintaining roads before they are in poor condition, potholes could become obsolete," he said.
FRUITFUL BUSINESS
by Jaan V. Janes '85

A devoted helper of Gerald Posner selling fruit outside of Willard Straight Hall. There is nothing odd about that as there are usually a number of vendors in front of the Straight but this business was different. It was a special project of a student in the College of Agriculture and Life Sciences.

The stand belonged to Gerald Posner '86, who majors in pomology and hails from Brooklyn, New York. Posner opened the stand in June of 1984 and closed for the season in October. Posner got the idea for the stand during the spring semester of 1984 when he began a special project for academic credit. Under the supervision of Professor Gene Oberly, chairman of the pomology department, Posner worked a small one-acre farm in Dryden on land that he rented. Most of the land was devoted to growing strawberries and the remainder for raspberries. When the time for harvesting came there was one obvious thing to do with the fruit: sell it.

Posner obtained permission from the Straight to open his stand and in early June he greeted his first customers. The stand did reasonably well but Posner soon realized that he had to broaden his selection.

He purchased fruits and vegetables from local farmers to sell at his stand. However, fruits and vegetables that were either out of season or ordinarily not grown in the local area had to be obtained elsewhere. This meant a daily trip to the Syracuse Regional Farmer's Market. The expansion meant that Posner's customers could usually find from 15 to 20 different fruits and vegetables at his stand. Some days the selection was even larger, with as many as 27 different produce products to choose from.

With the wider selection came a natural expansion of the business. Posner purchased a used pickup truck to make the daily trip to Syracuse, as well as local pickups and deliveries. He then hired help, an additional four to five workers without whom Posner said he could not have made his business a success.

Posner operated the stand as both a way of making money and as an educational experience. "It's hands-on, I've done everything," Posner said, adding that classroom training is fine but nothing beats doing it for real. From the financial viewpoint, he learned marketing skills. For example, good customer relations meant giving away produce free that had not sold in two days. This usually led to return customers. On the agricultural side, Posner learned to grow food crops from start to finish. The stand did well and finally began to make money in late August. Posner plans to put all the profits toward financing his education at Cornell.

Posner learned some things the hard way, too. For example, he did not prepare the land properly, which led to a weed problem. Posner had to overcome other obstacles, such as dealing with high overhead costs and people who did not always come through with what they had promised. But in time, Posner found that he could respond quickly to any situation.

Posner finished his first year of entrepreneurship in the black. Although his prices are less than those of on-campus stores, Posner admits he cannot compete price-wise with the high volume Collegetown retailers. But he has all the competitors beat where it counts most. Posner claims to have the freshest and highest quality merchandise in the area. The success of his stand is a testimonial to his claims.

What plans lie ahead for Posner and his stand? He plans to enter the wholesale business this spring as part-owner of 21 acres of land in Dryden. Snow peas and spinach will be grown first and if the Straight gives its approval, the stand will reopen in the spring. As for the future beyond Cornell, Posner has his mind set. This fruit stand was just the beginning of bigger and better things. Posner wants to own a small fruit farm, but this time make it growing small fruit on a big farm.
CORNELLIANS RECEIVE AWARDS

E. John Pollack, '69, an animal scientist at Cornell, has received the prestigious 1984 Young Scientist Award, an honor sponsored jointly by the Northeast Section of the American Society of Animal Science and the Northeast Division of the American Dairy Science Association.

An associate professor in the College of Agriculture and Life Sciences, Pollack was recognized for his contributions to the animal industry in the area of genetic evaluation of beef and dairy cattle.

George L. Good, MS '66, PhD '69, professor of ornamental horticulture at Cornell, has been honored with the 1984 Nursery Extension Award of the American Society for Horticultural Science (ASHS) for his outstanding service to the nursery industry.

A specialist in woody ornamental plants and landscape horticulture, Good is responsible for College-wide leadership in Cornell Cooperative Extension programs in nursery crop production and horticulture.

Henry M. Munger, '36, PhD '41, an internationally recognized authority on vegetable breeding and genetics at Cornell, has received the 1984 Norman F. Childers Award for Distinguished Graduate Teaching from the American Society of Horticultural Sciences (ASHS). A professor emeritus of vegetable crops in the College of Agriculture and Life Sciences, Munger was cited for "outstanding contributions to horticultural science, the profession, and the industry as a teacher at the graduate level."

John W. Kelley, PhD '68, associate professor of natural resources at Cornell has received the 1984 Heilberg Memorial Award from the New York Forest Owners Association. The award recognizes Kelley's "many truly outstanding contributions to the field of natural resources extension in 4-H and adult education at state, regional, and national levels."

Gene A. German, MA '59, PhD '68, associate professor of marketing and food distribution, has been honored as the 1984 Professor of Merit by graduating seniors in the College of Agriculture and Life Sciences.

Presented each year since 1948, the award recognizes "excellence in teaching, advising, and concern for students" and is presented by Hoh-Nun-De-Kah, the College's honor society.

Harold F. Hintz, MS '61, PhD '64, a Cornell animal scientist, has received the 1984 American Feed Manufacturers' Award in Nutrition Research from the American Society for Animal Science (ASAS). Hintz was recognized for his research on the horse, pony, pig and other animals.

Roger A. Morse, '50, MS '53, PhD '55, professor of apiculture in the College of Agriculture and Life Sciences at Cornell, has been honored with the 1984 James I. Hambleton Memorial Award, presented annually by the Eastern Apicultural Society. Morse was cited for his outstanding research related to the study of bees.

Frank Kosikowski, MS '41, PhD '44, professor of food science at Cornell, has received the 1984 Marschall Award.

Presented recently at the 21st Marschall Invitational Italian Cheese Conference in Madison, Wisconsin, the biennial award is given to an individual who has made significant contributions to the development and progress of the Italian cheese industry in the U.S.

Robert J. Verdi, a graduate student of food science at Cornell, has won first place in the 1984 American Dairy Science Association Graduate Student Scientific Paper Presentation in dairy manufacturing. Verdi won for his paper on "The Relationship Between Milk Somatic Cell Count, True Protein, Casein, Non-protein Nitrogen and Tyrosine Value."

APPOINTMENTS AND PROMOTIONS

William G. Tomek, professor of agricultural economics at Cornell, is the new president-elect of the American Agricultural Economics Association (AAEA). Tomek will serve as president-elect until August 1985, and as president during 1985-86.

John E. Kinsella, noted Cornell researcher in the field of food science, has been named the first holder of the newly established General Foods Chair in Food Science. Kinsella is the Liberty Hyde Bailey Professor of Food Chemistry, chairman of the Department of Food Science, and director of the Institute of Food Science.

James C. Preston, '50, EdD '68, associate professor of rural sociology at Cornell has been appointed director of the Northeast Regional Center for Rural Development at Cornell.

Gerald E. Rehkugler, '57, MS '58, has been appointed chairman of the Department of Agricultural Engineering in the College of Agriculture and Life Sciences at Cornell. Rehkugler succeeds Norman R. Scott who has become Director of Research for the College and director of Cornell's Agricultural Experiment Station at Ithaca.

Richard B. Root, professor of ecology in the Division of Biological Sciences at Cornell, has been elected president of the Ecological Society of America (ESA). Consisting of 5900 members, ESA is the major national society for professional and academic ecologists.

Anne Simon Moffat '69, has been named associate Director of University Relations at Cornell. In this new position, Moffat has responsibility for building media programs that increase national awareness of Cornell and the achievements of its faculty, staff, students, and alumni.
The area is quiet now. The flower beds that bloomed into a brilliant display of color during the spring, summer and fall have been removed. But during the next growing season, the Andrew Dickson White House and its expanded gardens will again be teeming with action.

Expanded gardens? Yes. As recently as the fall of 1983, the landscape behind the President's mansion was dominated by a wide, green lawn. Today, two parallel beds, each measuring about 50 feet by 12 feet, break up the area and help create a sea of color that sweeps virtually from the house's back door to the end of the property.

The work of several people affiliated with the College’s Department of Floriculture and Ornamental Horticulture as well as the Department of Buildings and Grounds Care, the gardens are not an original project but rather, a restoration. Initially, the gardens were the work of Daisy Farrand, the wife of fourth Cornell president Livingston Farrand, and were designed upon their move into the house in 1921.

After years of decline, the gardens were revived under graduate student Susan Cipperly '79 as she pursued a master's degree. Now the restoration continues under Professor Robert Mower's '56, PhD '61 guidance. Mower is a faculty member in the floriculture department.

"It was largely an abandoned area that used to have gardens of interest in it," commented Mower upon the project site's appeal. "It's being restored to bring the gardens back to their original location and condition."

Farrand designed and planted seven gardens but just three are the thrust of the current project. The first is located along a low retaining wall. The second and third, both perennial border beds, grace the upper level of lawn. These two are the most visible beds as one walks in the vicinity of the White property. The second borders the main part of the lawn; the third sits at the far end of the lawn, south of the Big Red Barn.

Work began on the project in September 1983. Along with incorporating a new color scheme into the third garden so that it would blend with the exterior of the Big Red Barn, the two beds of the second garden were partially planted with perennials during the fall and spring with the help of students in Garden and Interior Plants I and II, courses taught by Mower.

Because the restoration is not yet finished, however, some annuals were added to the beds to give them a completed look. This "extra help" may be needed again next year. The area next to the wall, the smallest and simplest garden, has already undergone its prescribed restoration.

Although the gardens will at one point look "restored", the process itself will never end. New flowers will always be added to fill out and update the beds and perhaps hedges will one day surround the borders as they did for the Farrands. Much of the work continues to be done by the floriculture students, providing valuable work experience.

But because the project is not officially under jurisdiction of the floriculture department, there is concern for the future of the gardens.

"At the moment, it's a group effort," said Mower, "and I expect more of the same. We'd like to use the students as much as we can."

According to Mower, the hazard of a perennial garden is that the area needs continual care. Once it stops, the gardens start to decline. "However, despite the uncertainty, it's an exciting project and hopefully, it will continue to develop," he adds.

It's a worthwhile project, too, for what had declined into a vast lawn with a few peonies poking up here and there is now busy with various colors of a perennial garden. Although it's the off-season for gardens right now, the plans still go on so that all may enjoy the restored beauty of the A.D. White gardens come spring.

New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.
ABOUT THE ISSUE

Nature, people and computers; today's world. In this issue we will take you from looking at trees in New York City to the Adirondacks and back to the College of Agriculture and Life Sciences where you can find rare trees, roses and John Sheeley, a student member of the Board of Trustees. We will also look at eating and education; the "Freshman 10", bias in schools, and teaching with computers.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy and Victor R. Stephen.
Like the other colleges within Cornell University, the New York State College of Agriculture and Life Sciences (A&LS) reserves a portion of campus it calls its own. More than 4,000 individuals participate in degree programs. Some students engage in top level research and attempt to reap the fruits from the tree of knowledge; others attempt to cultivate or legitimize the talents they believe they already possess.

With the aid of the ag college’s faculty and administration, aggies have, by and large, learned to adapt to the University environment with a minimum of hardship and hassle. The ag college possesses a unique characteristic that encourages participation in the numerous academic opportunities that are a part of college life. Because faculty, staff and alumni are often as involved in a student’s life as other students, all these elements should comprise the ag college’s long-term objective; a better sense of what is required to obtain a complete education.

What makes the ag college unique as an educational facility compared to other institutions and the other colleges within the University? What do its students see as the competitive edge by enrolling in the college, and are the two related? Having been in existence for so long, it is important to reassess the attributes of the ag college from a contemporary perspective.

It has been said that with the passage of time comes an accumulation of knowledge, and it seems that the College of A&LS has done a commendable job of specializing this knowledge and preparing it for distribution. The formal list of degree programs extends alphabetically from agricultural economics to vegetable crops (everything from A to V). Maybe she was not meant to be a doctor of philosophy nor he a pomologist, but there is enough breadth due to this specialized and diversified division of programs to explore many avenues.

Diversification, however, requires a means of unification, a way of tying it all together even if, for example, the majority of communication arts students question why they are in the ag college. According to the Courses of Study: “To qualify for the Bachelor of Science Degree, students must fulfill requirements established by the faculty of the College of Agriculture and Life Sciences . . . .” The requirements, in the different areas of physical, biological and social sciences and humanities, along with written and oral expression, have been combined to provide a well-intended and well-executed means of helping students become not necessarily agriculturally oriented, but agriculturally and life-scientifically aware.

The magnitude of the College has also lent itself to a unique history. Located on the hill of Cornell University’s central land area, once part of the family farm belonging to Ezra Cornell, the College of Agriculture and Life Sciences contains a group of buildings in a quadrangle of administrative offices, classrooms, laboratories, gardens and research facilities. It also has orchards, farms, field plots, mini-rivers and forests nearby.

Much of the free-spiritedness and open mentality associated with the ag college can be attributed to the expansiveness of the College, even perceived by those aggies who have not ventured beyond the quad. One of the ag college’s contemporary challenges illustrates that the number of tangible offerings provided by the College is so great and spread out, that students, staff and faculty tend to enlighten each other with their own exclusive areas of knowledge and study.

These perspectives also contribute to the College’s sense of pursuing study without the major concern for competitiveness, or in student jargon—being cut-throat. Because of the ag college’s hand in student diversification, few students come from the same place, or even want exactly the same things, so the uniqueness of aims rarely converges into goals that compete.

Certainly the College of Agriculture and Life Sciences has gone through major changes since its establishment many years ago. More will take place in the near future as well, such as the physical face-lift of the College when Stone, Roberts and East Roberts are torn down and Academic I is built at the west end of the quad. Even when surgery takes place, however, the inside will not change; the common enthusiasm shared by all associated with the ag college will remain.
John Sheeley: Student Trustee ...and more

by Ben Geschwind '85

John E. Sheeley '85, a business management major in the College of Agriculture and Life Sciences, claims a title that no other student in the ag college does: trustee of Cornell University. After two unsuccessful bids for the office of student trustee, Sheeley finally earned his place on the Board of Trustees when Joseph Scantlebury '84 resigned in early September.

Although Sheeley was a bit surprised about Scantlebury’s resignation and his own appointment, he was in no way unprepared to handle his new position and the responsibilities attached to it. Since arriving at Cornell, Sheeley has been involved with many activities and organizations which have given him a solid background and experience in both business management and group communication.

At the end of his freshman year at Cornell he was elected secretary of the Agricultural Positive Action Council (AgPAC), an organization which coordinates many events and activities within the ag college, as well as promoting student unity.

At the end of his sophomore year Sheeley was elected president of AgPAC, and although AgPAC’s constitution did not allow him to serve as an officer for more than two years, he remains an active member of the group.

But Sheeley’s involvement in extracurricular activities began before he entered Cornell. During his senior year in high school he was elected president of the New York Association of the Future Farmers of America (FFA). This position required that he be enrolled in high school for the full term of office, so he stayed in high school for a fifth year and at the same time took several courses at a local community college.

As head of the 7,000 member state youth organization, he attended the State President’s Conference of the FFA held in Washington, D.C., at which he met former President Jimmy Carter and former Secretary of Agriculture Robert Bergland. Through his work in the FFA he worked with many representatives of the State Education Department and the agriculture industry. “The kind of exposure I received,” Sheeley says, “helped me develop the qualities that would allow me to both serve the students and make me effective on the Board of Trustees.”

Sheeley says one reason why the position of student trustee is an interesting one is that even though he was elected by the entire Cornell student body, the University stresses that he (as all other trustees are) is a trustee for the entire University. “When you make decisions,” Sheeley says, “you think of the effects on the whole University, not just on your
While Ag PAC president, John Sheeley conducts a meeting.

and trustees arise because of the different perspective held by these two groups. Since most of the trustees serve for many years while the students are only on campus for a few years, the trustees "look further down the road than the students," Sheeley says, and adds that this enables them to better serve the University. But he says that the students are usually more familiar with many of the actual policies than the trustees are since the students must deal with the University every day.

Sheeley's appointment to the Board of Trustees is for a one year term, and he is scheduled to graduate in June, 1985. He plans to spend the spring '85 semester in a legislative internship program in Albany in which he hopes to gain greater exposure to public service.

Unlike many seniors, not only at Cornell but around the country, Sheeley has a good idea of his future plans. Sheeley says that after he graduates he would like to get a law degree as well as a PhD in economics with hopes of some day returning to Cornell to teach in the ag college. "Whatever I do in the future I want to be involved some way with agriculture, whether it is in policy making through public service or in teaching."

Although Sheeley enjoys the academic world and sees it in his future, he does not underestimate the importance of learning from outside the classroom, something he has done much of. "It is a waste to come to Cornell just for an academic education," Sheeley says, "because there are so many other things going on that are truly life-educating."
It is four in the morning. The streets are dark and empty and only a few people can still be found riding the subways. Even the bar crowds have disappeared and most city dwellers are in bed and asleep. But while the city is sleeping something very strange is taking place on Columbus Avenue in Manhattan. A team of three Cornell researchers is huddled around a tree with all kinds of measuring devices and research equipment set up. For the next two days these three, along with three other researchers who will join them later in the day, will “camp out” on this block to study the plight of the trees lining the city’s streets.

For the past year the Urban Horticulture Institute of Cornell University has conducted this unique study of New York City’s street trees to discover and understand how the environmental conditions surrounding the tree, its “microclimate,” affect and limit a tree’s growth. Most of the trees found in urban centers are under extreme stress due to the harsh conditions found in a city such as New York. For this reason Nina Bassuk, an Assistant Professor of horticultural physiology in the Department of Floriculture and Ornamental Horticulture in the New York State College of Agriculture and Life Sciences at Cornell, is chiefly concerned with helping city trees grow successfully under urban conditions. Bassuk is also the leader of Cornell’s Urban Horticulture Institute.

The study is now in its second year of existence and for two days every month from May to October Bassuk and her research team go to New York City and set up “camp” on a six block area on Columbus Avenue. Why Manhattan and not another city? “We take the most difficult situation and then extrapolate back to less difficult situations,” Bassuk said.

The Cornell research team begins their work before dawn, “when the trees have the greatest amount of water in them,” Bassuk explained. As soon as the sun comes out the trees begin losing water and by two p.m. there is what Bassuk calls the “midday depression.” This results from an increased demand for water coupled with a decreased supply.

The focus of this study is twenty trees, ten ash and ten linden trees. They were all planted at the same time and are all the same age. An open-air laboratory is set up right on the street, complete with a weather station. This equipment helps the researchers to measure the effects of temperature, humidity and rate of water loss by the trees. Because trees on different sides of the street react differently to these conditions, Bassuk and the others look at the trees on the north side as compared to the south side of the street and trees on the east side as compared to the west side of the street.

There is an official weather station in Central Park and when the Cornell research team began to gather data from their own weather station, they compared their findings to those of Central Park’s. The results were startling. The researchers found that the street tree environment was much hotter and drier than the temperature indicated by official weather reports coming out of Central Park. Sometimes the temperature was 20 degrees hotter than the official temperature reading. Bassuk explained this phenomenon as resulting from the physical makeup of the city street. “When sunlight hits built-up surfaces like concrete and asphalt pavement, buildings and car tops, it results in an oven-like environment for the trees.” Dense surfaces store heat and then radiate it back to the areas surrounding the trees. Car tops are tremendous heat-reflecting surfaces so you can imagine how all of those rows of cars lined up on city streets are affecting the nearby trees.

The water supply is another important factor the researchers look at. “Basements, utilities, subways and paved surfaces all limit a tree’s rooting space and infiltration of water to its roots,” Bassuk pointed out. This limits the amount of water reaching the trees, leaving them with a serious water deficit. The lack of water exposes the trees to an extreme amount of stress, weakening them to the point of becoming very susceptible to insects and disease.
Nina Bassuk examines a tree to evaluate and aid its survival.

Because city trees have a hard time getting water, many of them are dying of thirst. There are 2.5 million trees under New York City jurisdiction and each year 1,000 trees are planted to replace dead or dying trees. A city tree lives for an average of three to ten years after it is planted, whereas a tree found in a forest can live anywhere from 80-100 years.

With this kind of data it seems doubtful that the city tree can have much of a future. The focus of this Cornell study is to gather information about the city trees and then to develop new ways of selecting, planting and maintaining the trees.

There is a project underway to develop a procedure to detect stress-tolerant tree species. New ways of using trees on the street are also being examined. "The trees may have to be planted together in groups so that the shade provided by each tree will be better able to shield the leaves from the heat," said Bassuk. Another possibility in helping street trees grow better is to widen the planting site to channel the rainwater to the trees instead of into the sewers.

Bassuk and the rest of the Cornell research team will continue to conduct this field study in Manhattan with the hopes of developing even more methods of aiding city trees in their growth. Information, methods and results recorded by the Cornell research team can be passed on and applied to other urban centers across the United States. The reward of having healthy, longlasting trees and more liveable cities makes this project extremely worthwhile.
Hortus Forum made $1000 in rose sales on Valentine's Day, 1984. This money went towards the funding of the North Eastern Regional Collegiate Horticulture Society's (NERCHS) annual convention. Cornell hosted this convention in March, 1984, and students from the Pennsylvania State University, the University of Rhode Island and the University of Delaware participated in three days of learning, exchanging ideas and lots of fun.

There are approximately 20 members of Hortus Forum, five of which make up the executive board chaired by President Peter Eckert '85, a student in the Department of Floriculture and Ornamental Horticulture.

One of the primary goals of Hortus Forum is to bring students and faculty in the College of Agriculture and Life Sciences closer together. "We work with the faculty pretty closely," explains Gooss who helps organize several faculty-student mixers, especially during Cornell's Orientation Week. He continues, "We try to get people more involved with the College and its faculty."

Hortus Forum is a social club which combines learning and "partying." Students in the club can exchange ideas with other students with similar interests. They also take time to keep up with the research of professors in the field and attend lectures by guest speakers. Recent lecturers include Nina Bassuk, Assistant Professor in the Department of Floriculture and Ornamental Horticulture, who has done extensive research in urban horticulture and Professor Richard Iversen, Department of Ornamental Horticultu-
ture at the State University of New York in Farmingdale. Iversen is also an authority on English gardens. Members regard the exchange of ideas between students as a great source of learning. They also appreciate the crucial contact between students and faculty. According to Gooss, “Professors have a lot more to say and offer beyond their lecture notes.”

The Hortus Forum Arbor Day tree planting is an example of how members combine fun with learning. With the help of Professor Robert G. Mower, Department of Floriculture and Orna-

mental Horticulture, who is viewed by Gooss and other members as “the resident horticulturist extraordinaire,” a rare tree is planted each spring on or near the ag college. Arbor Day has a dual function for Hortus Forum. Not only does the tree planting add to the beauty and vegetation of the Cornell landscape, but the variety of trees planted has educational value.

Each tree that is planted is rare, unique or unusual, and students can study them on a regular basis instead of making sporadic trips to test gardens. Three types of trees planted during the last three years include a *Taxodium distichum* (Bald Cypress), an *Acer campestre* (Hedge Maple) and a *Malus tchonoskii* (a rare crab apple tree.) Mower and Hortus Forum members are hoping to keep increasing the collection as well as the variety of trees on the ag quad and build up a nice selection, possibly in front of Fernow Hall. The reforestation project of Arbor Day is beneficial to all.

Field trips are also often enjoyed by members. By November 10, 1984, members will have visited the Longwood Gardens in Kennett Square, Pennsylvania for a landscape show, a study of the huge display gardens and an educational program. Trips to Christmas Tree plantations are also on the schedule.

New York state wineries are also frequented by Hortus Forum members who appreciate the time taken out by grape growers who explain processes and techniques to those interested. These trips are often followed or preceded by wine and cheese parties; both the trips and parties are open to all students, faculty and friends.

The Hortus Forum continues to grow and appeal to new members. There are plans in the works for a scholarship program for excelling freshmen and graduating seniors. By fostering contact between ag students themselves and between the students and faculty, the Hortus Forum has succeeded in creating an ideal student organization for which fun is a primary consideration in the expansion of education.
Orthopedic surgery being performed in Surgery A.

Where All The Patients Are HEAVYWEIGHTS

by Fredda L. Plesser '85

This hospital ward is much like many others. Doctors, nurses and technicians make their rounds to check patients' progress. Cleanliness and disinfectant are common odors throughout the hospital. Medical charts in patient quarters include diagnoses such as corneal abscesses, chronic ulcers, head traumas, tetraparesis ataxia, limb deformities and facial lacerations.

Patients rest comfortably, however, on mounds of straw rather than on hospital beds. Furthermore, there are no remote control television sets, no oral thermometers and few patients weighing less than 300 pounds! No, this isn't General Hospital, it isn't even Tompkins Community Hospital, it is the Large Animal Clinic at Cornell's New York State College of Veterinary Medicine.

The clinic is one of the most extensive and respected facilities of its kind in the country. It offers access to specialists in areas such as dermatology, neurology, cardiology, anesthesiology, radiography, pathology, ophthalmology, and both orthopedic and soft-tissue surgery. Serving as an outpatient clinic, a teaching hospital and a research and diagnostic center, the Large Animal Clinic treats many types of illness and disease.

Although most colic problems in horses respond to medical therapy, 50 percent of the cases at the hospital are treated surgically, according to Dr. Susan L. Fubini, instructor in surgery. This phenomenon occurs because the clinic predominantly serves referrals, many of which have come to the clinic as "problem" cases or those that have not responded to medical therapy.

Bovine illnesses referred to the hospital are principally abdominal disorders. Problems involving the udder, often resulting in poor milk production, and respiratory disease, are also commonly seen. Sheep and goats are hospitalized less often. These "small ruminants," as they are collectively called, are easier to manipulate and are therefore treated more easily by practitioners.
Dr. Rebhun and Dr. Fubini checking a patient's medical record, (far right.)

A cow being prepared to receive local anesthetic before undergoing abdominal surgery, (right.)

Dr. Rebhun examines a calf.

Senior students in the College of Veterinary Medicine change bandages.

In addition to the treatment of patients, members of the staff conduct intensive research. Research is an important component of the Vet College; however, it is never conducted on client animals, those that have been brought in by owners for treatment.

The Large Animal Clinic has been housed at its present location near the Vet College since 1959. The layout of the hospital includes five "finger barns" which are connected to support services and surgical facilities. The clinic has the capacity to hold 60 large adult animals and 12 smaller animals such as calves, foals, goats and sheep, according to Dr. William C. Rebhun, BS '69, DVM '71, Associate Professor of Medicine at the clinic. Facilities also include the Large Animal Isolation Building which houses patients with highly infectious diseases such as influenza and equine infectious anemia. Five isolation units exist both for the protection of other animals and hospital personnel which may be exposed to the disorder.

Hospital clientele are a very diverse group. According to Rebhun, "The bulk of the cases are referrals. The animals have been examined and sometimes treated by other veterinarians in the field who have found the case unusual or difficult to diagnose."

Services at the Large Animal Clinic may be divided into two broad categories, medicine and surgery. Surgical facilities include three operating rooms: one used primarily for orthopedic surgery, one room with a rubber floor and special wall attachments, often used to restrain cows during surgical procedures and a third room, used for general surgical procedures. "The surgical staff works very closely with the radiology and anesthesia departments," said Fubini.

The clinic staffs four full-time surgeons: Dr. Richard Hackett Jr, Associate Professor of Clinical Sciences, specializing in abdomen and upper airway surgery; Dr. Rory J. Todhunter, Instructor of Clinical Sciences, specializing in general surgery and orthopedics; Dr. Michael Collier, Assistant Professor of Clinical Sciences, specializing in orthopedics and Dr. Susan Fubini who performs bovine and general surgery.

The Large Animal Clinic medicine service clinicians include Dr. Rebhun; Dr. Bud Tennant, Chief, Section of
Medicine and Dr. Stephen G. Dill, Assistant Professor of Clinical Sciences.

In addition to the doctors, surgical nurses and technicians, there are four surgical residents and two medical residents on the hospital staff. "The residents are training under the guidance of the surgical faculty. They are essential to the daily patient care and monitoring," Fubini states.

Another notable presence at the clinic are the fourth year veterinary students who assist at the hospital. Each of the 80 senior vet students rotate through the hospital working under the supervision of the clinical faculty and residents.

Where does the Veterinary College get the money to operate such an extensive medical facility? Funding for the clinic comes from three major sources; New York state, patient billing and veterinary alumni. According to Rebhun, alumni funds are vital to the survival of the clinic, especially in their generous allocations toward the new medical equipment necessary to maintain the clinic's margin of superiority.

The clinic is and has always been forward-looking in its hopes for continued success. Present plans include a physical expansion of the facilities and an increased emphasis on research in such fields as arthroscopy, electrical stimulation of bone growth, the prevention of adhesion formation and antibiotic therapy, according to Fubini.

A college-owned animal is used for teaching purposes.
Network; marketing; organization. These are the buzz words associated with strengthening the membership activities of our association today.

You as alumni, of course, represent an important link between our college and the public, and only you are in a position to understand the direct correlation between a strong and pioneering College of Agriculture and Life Sciences and the growth and progress in your own professional fields. The challenge of your board of directors lies in strengthening membership so that both our college and we as alumni may benefit.

One of the obvious ways of strengthening our Alumni Association is through increased activity within each of the twenty-seven districts established throughout New York State. In addition, public relation efforts are underway through district representatives located in the New England states, Canada, New Jersey, and in the Southern, Central, and Western states. (Districts and their directors are listed elsewhere in Update.)

Get-togethers are planned for several of these districts. These provide opportunity for alumni to join together in fellowship and to hear reports from college administration and personnel.

Traditional activities will remain an integral part of our overall Alumni Association programming. These include opportunities to renew acquaintances at Alumni Reunion Weekend in June and at Autumn Roundup in September.

We will continue our main thrust of helping with student recruitment and support. The CALS Alumni Association sponsors a yearly barbecue for graduating seniors which welcomes them as future members of the Alumni Association and invites them to use their free 2 year membership. An Open House for students interested in transferring to Cornell and another for prospective freshmen and their parents are also supported by the association to maintain our interest in student recruitment.

This year, with interest from the Lifetime Member Fund, we again donated $4,000 toward freshman scholarships. In addition, $2,500 was donated to the career development office to assist them in financing the Career Counseling Computer System. Under the Lifetime Member Fund guidelines, special college needs, such as these, are reviewed yearly by the Board for funding.

As we look to the future, our goal will continue to be to help our college provide the best education it can for our students. But let's not forget these good benefits which accrue to alumni once they leave this great institution. I urge you to participate wherever you can in helping to strengthen our Alumni Association.

Sincerely yours,

Judy Riehlman '80
President
1984 Senior Barbecue

"Somebody cares. They care very much that we maintain diversity in the College, and our alumni are willing to give over $450,000 each year in scholarship aid to students in the College of Agriculture and Life Sciences." This was the message from Dean David L. Call '54 to some 520 graduating seniors and their guests at the annual CALS Senior Barbecue. Each year the barbecue offers our College Alumni Association a means of honoring our current graduates while developing ongoing relationships with them. Once again this year, each graduate was presented with a two-year free membership opportunity in the CALS Alumni Association.

Bob Bitz '52, President of the Association, spoke to the group about the many ways in which alumni actively support the College and its students in addition to scholarship aid and the senior barbecue. Career Conversations Day, Transfer Day, and Open House are all events co-sponsored with various College offices; and the annual fall Roundup and spring Reunion are times when alumni gather on campus to learn of new developments at the College while reminiscing with classmates.

In addition to formally congratulating all our graduates, the Senior Barbecue gives alumni the opportunity to honor students who have made particularly outstanding contributions to the College. This year one of these students was Garritt Sammons of Johnstown, NY, who served the Alumni Association for two years as a student member of its Board of Directors.

Other seniors recognized for their service to the College included George W. Austin and Cynthia A. Hopsicker, co-winners of the Senior Service Award presented annually by the Alumni Association. Austin (Agricultural Economics) and Hopsicker (Animal Science) were selected from a field of 16 nominations, based on their commitment of time and energy, their dedication and creativity in leadership as well as behind-the-scenes teamwork. They both have been active members of Ag PAC (the CALS Positive Action Council), ALS Ambassadors, Alpha Zeta fraternity, and various other organizations. George and Cynthia each received a recognition plaque and a cash award of $100.

George J. Conneman '52, treasurer of the Association and Director of Instruction, presented the awards, saying the College "couldn't run half as effectively as it does without our students who serve in so many capacities."

Four other finalists received certificates of recognition. Steven C. Best (Dairy Science), James A. Clark (Ag Education), Margaret A. Kleeberg (Floriculture and Ornamental Horticulture), and Teresa J. Schillinger (Business Management) all made outstanding contributions of time and talent to the College.

This was also a time to recognize Professor Gene A. German of the Department of Agricultural Economics, this year's Professor of Merit. The Professor of Merit Award is given annually by CALS seniors in recognition of "excellence in teaching, advising, and concern for students." Susan D. Klugman '84 made the presentation on behalf of Ho-Nun-De-Kah, the ag school's honor society and the group that solicits nominations for this award.

Professor German teaches two large courses -- Food Industry Management and Food Merchandising -- and also advises 58 students, 18 of them graduating seniors. That's a lot of letters of recommendation! In addition to teaching and advising, Dr. German is known for his research in the retail and wholesale food marketing arenas, and his direction of home study courses for food industry employees.

Cornell diplomas in hand, what do this year's grads have planned for the future? Some will work, some
will study, some are unsure as yet. Some graduates' plans will take them far from New York State. Jim Ferreira (Ag Ec.) of Schen, NY, will be working with the State Comptroller in Albany this summer, but fall will find Jim studying at the LBJ School of Public Affairs at the University of Texas at Austin. Margie Cain (Ag Ec.) of Elmira, NY, will work this summer at Cornell and move to Colorado to look for permanent employment there in the fall.

Some graduates won't go quite so far away. Margaret Kleeberg (F&OH) of New York City has accepted a position in urban horticulture working with Massachusetts Cooperative Extension in Boston. In the Public Policy area, Anne Hoskins of Sidney, NY, has been working with the State Assembly since graduating in January. Anne returned to campus to participate in the graduation ceremony, and will be a grad student at Princeton beginning this fall.

Some will remain in New York State. Mary Wellington (F&OH) of Liverpool, NY, will be working as a landscape consultant with a firm in Syracuse, a job she's been doing part-time for the past 1 1/4 semesters. Mary commuted between Ithaca and Syracuse while still a student and now will move closer to work. Patty Nelson, a Communication Arts graduate from Portville, NY, will be a counselor for the summer at Camp DeBruce in the Catskills; following that, she plans to look for a job at Cornell.

Some graduates have less structured plans and are mainly enjoying the end of classes for the time being. Jim MacKenzie of Brooktondale, NY, got his degree in Vegetable Crops and will be looking for work in the veg crops area. Sandy Conant (F&OH) of Ithaca plans some serious "R & R" and then will conduct some personal research on interior plantscaping, an area of particular interest to Sandy. George Austin from Geneva, NY, earned his degree in Agricultural Economics and intends to work in the agribusiness field. And Cynthia Hopsicker, Animal Science major from Utica, NY, plans to return to school to study veterinary medicine.

This year's barbecue featured a chicken dinner prepared by the Lansing Family Forum, a grassroots organization that supports activities to benefit families in the Town of Lansing. Fifteen cakes made by Brown Hill Bakery and some musical selections by the R. David Smith and Company barbershop quartet, rounded out the afternoon.

Dean Call was right. Somebody does care. From the proud parents and friends, to the proud graduates, to the alumni who still care about their College and the future of its students -- there was a lot of caring in evidence that Friday afternoon, and at one more CALS Senior Barbecue, a good time was had by all.

Reunion 1984

This year's reunion marked the 50th year since graduation for the class of '34 and the 25th for the class of '59. It also saw the initiation of some new reunion activities for the College of Agriculture and Life Sciences Alumni, and for the first time, seminars were offered to bring alumni up to date on new developments in the College.

Dr. Milton Zaitlin, Professor of Plant Pathology, and Dr. W. Bruce Currie, Associate Professor of Animal Physiology, introduced the group to the biotechnology program at Cornell. Dr. Zaitlin, Associate Director of the Program, defined biotechnology as "the application of chemical, physical and engineering techniques to biological processes to achieve improved production of food and fiber."

Through the technique of tissue-splicing (recombinant DNA), changes in plant characteristics can be induced at the cellular level. And the process of tissue culture enables us to reproduce these genetically
superior plants in virtually unlimited numbers.

Advances in the field of animal science have centered around increased and more efficient production of animals and animal products, relative to investment. For instance, pounds of milk per dairy cow doubled from 1955 to 1980, while the number of cows in production decreased by half. Artificial insemination has increased the offspring a superior bull can sire from 50 per year in 1940 to 50,000 per year in 1980; and sperm banks help to maintain genetic diversity.

Dr. Currie points out that though we are unable to do certain types of research on humans or even small animals, we are able to learn from the types of research done on large animals. As an example, we can now do surgery on unborn humans, such as prenatal transfusions on rhesus babies, enabling them to survive after birth.

Professor Emeritus William C. Kelly was presented the Edgerton Career Teaching Award for 1984.

The second Friday morning seminar centered around the academic use of microcomputers in the library system. Howard Curtis, Coordinator of Computer Projects and Joan Lippincott, Head of Public Services at Mann Library, demonstrated bibliographic searching using the microcomputer. Because printed indices give access by author and descriptors assigned by an indexor, some important items in a literature search may be difficult to locate. The computer can increase access—easily and quickly.

Alumni were invited to return during the weekend's festivities for personal instruction and hands-on experience with the computers.

Another high point of the weekend was the annual reunion breakfast held at the Sheraton Inn Conference Center. Almost 400 were in attendance. Some alumni travelled great distances to be present, such as Mr. Nisar Khan °30 of Bangladesh and Mr. Pat Lee '64 from Kuala Lampur. Khan received his B.S. in general agriculture and stayed to earn his M.S. in animal husbandry in 1932. His distinguished career as a livestock expert in the country of Bangladesh spanned 35 years, including an Associate Professorship at the Agricultural University and a post as Joint Agricultural Census Commissioner of East Pakistan.
Pat Lee also received his B.S. in general agriculture and works as a stockbroker in the predominantly agricultural country of Kuala Lumpur. Lee recalled his farm experience with Phil Gellert '58, which he did for his farm credit while at Cornell; and his close association with his former advisor and long time friend, Dr. Bill Kelly, who Lee said helped him find a focus in academia.

Twelve past presidents of the Association were present: Don Wickham '24, Don Robinson '41, Don Whiteman '39, Ralph Winsor '57, Floyd Morter '52, Al Lounsbury '55, Charles Riley '38, Cliff Luders '38, Julian Carter '37, Phil Green '64, Stewart Lamb '63, and Lou Matura '58.

Judy Riehlman '80 reported on 1983-84 activities of the Association, including Open House, Transfer Day, and the Senior Barbecue -- all student-related activities. The 75th anniversary of the CALS Alumni Association will be celebrated at this Fall's Autumn Roundup, to be held September 22. Judy stressed the need to increase grassroots organizational efforts and the major membership drive to take place in 1984-85.

The Treasurer's Report was given by George J. Conneman '52, complete with a printed version for distribution. With approximately 1,000 lifetime members and the money being used to support activities such as scholarship aid, Treasurer Conneman said this year's report should read: "We took in some money; we spent it all. We don't have any left." Thus, the need for increased membership.

Lou Matura '58 reported for the Nominating Committee that there were still areas where directors are needed -- district 10 (Franklin, Clinton and Hamilton Counties), Canada, and the New York City area. James Mackerer '70, Hans Kunze '82, Paul Tilly '59, Glenn Dallas '58, and Robert Gellert '63 were elected to represent districts #6, #15, #19, #24, and New Jersey, respectively. Bob Perl '86 was named the new student director.

The Development Committee had numerous success stories to relate. Jean Rowley '54 reported on the establishment of 12 new scholarship funds: the Adirondack Fisheries Program; the Keeton Professorship, $30,000 over its goal of $100,000; and the Friends of Joe King Scholarship Fund, the top at $255,000.

Another success story and a regular feature of the reunion breakfast is the presentation of the Edgerton Career Teaching Award. First presented in 1980, the award was established by Louis J. and Edith Edgerton, their friends, colleagues and former students, in recognition of commitment to teaching. This year's recipient was Dr. William C. Kelly, Professor Emeritus of Vegetable Crops. Dr. Kelly has taught Vegetable Crops Physiology and Research Methods in Applied Plant Science, each for 30 years, and Organic Gardening for 12 years. He has also taught in International Agriculture and advised numerous students on both the graduate and undergraduate levels.

Attention also focused on Provost W. Keith Kennedy 'GR and Dean David L. Call '54 for their achievements and years of service to the College.

Kennedy, whose career at Cornell began when he entered the University as a graduate student in 1940, has distinguished himself as a scientist, teacher and leader of the College and the University. He spearheaded the establishment of Ag PAC in 1975 in response to unrest between students, faculty and administrators in the late '60s and early '70s. Keith was instrumental in bringing Boyce-Thompson Institute to campus, and led the College to academic excellence in a time of budget constraints. Following the
unveiling of his portrait to be mounted with those of other past CALS Deans on the second floor of Mann Library, Kennedy said he had enjoyed working with the agricultural community across New York State and being a part of the greatest institution in the world. "It's been a great experience at Cornell."

Another unveiling revealed a somewhat less serious portrait (would one call it a "roast?") in recognition of Dave Call's sabbatic leave which he will spend as Vice President of the University for External Affairs.

Call reported on the filling of faculty positions following last year's retirement of 44 full professors. Some truly outstanding people have been hired, and more searches are underway. Another source of excitement in the past year has been the growth of instructional computing at the University. Call feels that "CALS is leading the way on this campus and nationally in the adaptation of microcomputers in instruction."

Besides having the usual good time at this year's reunion, alumni can feel that the future looks good for this College. Enrollments in agriculture colleges have declined by more than 20 percent in the last three years, but applications at CALS increased by 15 percent this past year alone. That says a lot about CALS and its supporters.

Says Dave Call, "We're a quality institution -- thanks to you, the faculty and the students."

Focus on Alumni
by Linda W. Schempp '85

The Foxfire Phenomenon

Most of us are familiar with the Foxfire books -- now eight in number -- that tell us about the folk customs and heritage of people of the Appalachian region. What sometimes comes as a surprise is that the books are almost entirely written by high school students and represent one product of an educational program designed by B. Eliot Wigginton '65, GR '66.

"Wig" says the project was born of frustration. Upon leaving Cornell in 1966, he went off to the small community of Rabun Gap, Georgia, to teach English in a public high school. After a number of weeks, he knew all the educational techniques he'd learned had failed. His students were bored. They weren't learning, and one difficult tenth grader had even set his lecturn on fire during class. Clearly, a change was in order.

The result was "Foxfire." It started as a six-week project in which the students voted to produce their own magazine. The magazine was so well received in the community that Wigginton was asked to continue it, and eventually the best articles were compiled into the first book of the series.

Eliot says it was the mood in the country at that time that was responsible for the national popularity of The Foxfire Book. The variety of self-sufficiency skills it covered appealed to people getting "back to the land." In addition, because suspicion of teens ran high following the turbulent sixties, anything that generated positive publicity for that age group was eagerly followed by mass media. So the involvement of regular high school students in the book's production attracted the attention of groups like the "Today" show and Life Magazine that wouldn't ordinarily have been involved. And the book had special appeal to the large body of Appalachian emigrants not living in the mountains any more -- entire communities all over the country.

The Foxfire Book was something they could pass on to their children, to explain part of what they were all about.

The program has grown and flourished, thanks to income generated by the sale of those books and other products that followed. Income goes into a nonprofit foundation and gets funnelled back into the school system to support the ever-expanding Foxfire curriculum. It now includes a video tape division, a music division, a recording studio, and an environmental program, in addition to the original magazine/book section. Students voted to buy a piece of land and to date, they have moved and reconstructed 27 historical log buildings on the 110 acres purchased. There is a summer job program which employs 25 to 30 students each summer, and a scholarship program that gives $30-40,000 in aid per year to students wanting to go on to college.

Scholarship recipients need not pay the money back; it's a means of saying to them, "Thanks for the energy you gave us."

Students do everything involved in creating a finished product in whatever Foxfire class they're
taking. For instance, students working on the magazine go out into the field, conduct and tape their own interviews, take photographs and develop them, type up copy, edit and rewrite, do layout, and handle correspondence and billing for the magazine.

Wigginton says what this type of project represents is not an alternative to basic educational concepts, but a better delivery system for the basics. It answers the question most students have, which is, "Why are you making us sit here and do this?" They can see how academic skills are applied in the world outside the classroom. There is an immediate relationship between what they do with their hands and heads and the finished product.

In order to make this system work, of course, the teacher has to be on top of what is going on in the classroom at all times. Teachers must know their students on more than a first name last name basis and must carefully monitor individual progress in order to be sure they are mastering the required skills. This necessitates pre- and post-testing and careful grading of all papers and projects.

Wigginton says this idea is not brand new on the educational scene. John Dewey, at the turn of the century, advocated a philosophy of this type. Dewey said the biggest problem facing educators was the "either/or" dichotomy -- that education had to be delivered by one of two systems.

The traditional system has been less than successful because concepts are presented in pre-packaged, pre-digested form and are, therefore, meaningless and difficult for students to internalize, because it imposes a punitive atmosphere. Control is not maintained by the nature of the activities kids are involved in, but is absolutely dictated by an authority figure in front of the room.

The progressive system, advocating absolute freedom of movement, thought and speech, is not an acceptable substitute because it lacks academic rigor.

Wigginton believes that it is in the wedding of these two systems together that true gains are made in education. This is what Foxfire tries to do.

At the same time students are learning cognitive skills applicable in life, and in the community there's a generous component of something else going on. In conducting interviews for a magazine article, students meet and talk to a stranger, and learn some things about a stranger, and at the same time learn some things about life and the resilience of the human spirit. This is where the affective gains are made. In addition to all that, students gain a sense of pride and confidence from seeing something they created in print.

Eliot Wigginton is an educator devoted to his art. He believes public high school teachers have the power to make a difference in people's lives. He and his staff are making a difference in Rabun Gap, Georgia, through a project that is being duplicated nationwide.

What of the name, "Foxfire?" The Foxfire project is named for a bioluminescent fungus -- an organism that glows in the dark with its own natural light. A fitting name, indeed, for a program of guided intellectual growth which at the same time enables and encourages individuals to glow with their own special, natural light.

**CALS Alumni Association Autumn Activities**

_by Linda W. Schempp '85_

**Outstanding Alumni 1984**

Each year the CALS Alumni Association honors graduates of the College who have made outstanding contributions of their time and talents to the College and to their professions, as well as to the betterment of society. This year's five winners were feted on two separate occasions, one in August and the second during Autumn Roundup '84.

On August 13, a warm summer evening that was "perfect for growing corn" according to Acting Dean Kenneth Wing '58, we gathered in the Big Red Barn to honor two of the five award winners.
John S. Dyson '65 and B. Eliot Wigginton '65, MAT '66, were the first two alumni to receive the honors. They made a special trip to the campus in August in order to keep their commitment as members of the Foxfire Fund Board of Directors scheduled to meet in Rabun Gap, Georgia, on the same weekend as Autumn Roundup.

John Dyson is the Chairman of the New York State Power Authority, Chairman/Owner of E. P. Dutton Publishers, and a member of the University Board of Trustees. He is probably best known for the "I Love New York" campaign which he originated and which may well be the most copied public relations campaign ever.

Eliot Wigginton is the developer of "Foxfire," an educational program originally designed for teaching language arts to bored high school students. Through sales of the Foxfire books and the program’s other products, and through establishment of the Foxfire Fund, Inc., the curriculum has expanded to encompass other areas of study. (See accompanying article on "The Foxfire Phenomenon").

Three other outstanding alumni were honored at an awards dinner held at the Ithaca Holiday Inn on September 21st.

Clifford F. Luders '38, M.Ed. '57, taught vocational agriculture in Erie County, here in New York, for 40 years. Besides his efforts in promoting vocational agriculture in the State and his work with various Holstein organizations, Cliff has been active in the CALS Alumni Association (formerly serving as President and Vice President) and on the College Development Committee.

Stanley W. Warren '27, Ph.D. '31, is professor emeritus of farm management in Cornell's Department of Agricultural Economics. Dr. Warren worked with J. Lossing Buck in China in Buck's pioneering studies of Chinese agriculture before joining the Ag Ee faculty where he devoted the next 40 years of his life to teaching farm management and farm appraisal to college students.

Frank L. Wiley '44 owns and operates the 400-acre FranLee Farms in Victor, New York, specializing in registered Guernseys and cash crops. Frank has shared generously of his time and expertise through years of volunteer work with various organizations to improve breed quality, marketing opportunities, and agricultural legislation.

Our alumni are a large and diverse group and reflect the variety in fields of study at CALS. Our Outstanding Alumni Award winners exemplify the best traditions of the College in sharing of their knowledge and experience for the advancement of our society and our world.

Liberty Hyde Bailey Day -- Autumn Roundup '84

This year's Autumn Roundup marked the 75th anniversary of the CALS Alumni Association. It was a time to honor the man instrumental in founding the Association and to celebrate his role in the founding of the College itself. And so September 22, 1984 became "Liberty Hyde Bailey Day."

A sparkling early morning saw our Outstanding Alumni Award winners and their spouses transported to the Ag Quad in horse and carriage units reminiscent of bygone times. The Morgan horses and their carriages were provided by G. Harris Wilcox '44 of Bergen, NY, Albert and JoAnn Celecki of King Ferry, NY, and Kathy and Richard Talcott '65 of Poplar Ridge, NY.

Association President Judy Riehlman '80 recognized the classes of '59 and '34, twelve student organizations participating in this year's event, and the service of former President Bob Bitz '52.
Treasurer George Conneman '52 then presented the 1984 Academic Achievement Awards.

Dorothy R. Carter '86 of East Quogue, NY, won the prize for the junior transfer student with the highest average after one year at Cornell. Dorothy, a student in Landscape Architecture, transferred from Farmingdale. Her faculty advisor is Roger Trancik of the Landscape Architecture Program. In her first year here, Dorothy took eight courses and earned four A's and four A-'s.

The award for the junior with the highest average after three years at Cornell went to Caroline H. Griffitts '85 of Boulder, Colorado. Caroline had been studying Animal Science, advised by Jim Stouffer, and is taking her senior year in the Vet College under John Pollack. In her first three years, she took 33 courses, in which she received 17 A+'s, ten A's, three A-'s, and three B+'s for a G.P.A. of 4.06.

Bob Perl '86, Chancellor of Alpha Zeta fraternity, presented the Alpha Zeta key to the freshman with the highest average at the end of the first year. Ira D. Gelb '87 of Oceanside, NY, had attained a G.P.A. of 4.19. Ira is majoring in Animal Science, and his advisor is Fred Lengemann. In his first eight courses, Ira earned five A+'s and three A's.

Following the student awards, President Riehlman introduced the Outstanding Alumni Award winners, presenting each with a recognition certificate. On a lighthearted note, she presented each with a tee shirt commemorating Liberty Hyde Bailey Day. (See accompanying article on Outstanding Alumni Award winners.)

Acting Dean Kenneth E. Wing '58 reported on the excellence of our students and faculty and the exciting things they're doing. Some of the highlights included reference to the bovine growth hormone and what it can do for the dairy industry -- currently a hot debate in agriculture. Wing also cited a tomato that stays ripe for a long time because of the miracles of biotechnology (and it's even edible), and new advances in storage techniques which can keep an apple...
fresh for weeks without refrigeration!

Dean Wing also reported on the CALS building program, referring to Academic II to be completed sometime between January and June of 1985. It will house the Departments of Entomology and Media Services and the Program in Biological Sciences teaching. Academic I, the building that stimulated some controversy last year has been redesigned to be more efficient and environmentally pleasing, and should be open in the summer of 1988. In addition, it now appears that a new Biotechnology Building will be constructed on Lower Alumni Field behind Academic II and Corson-Mudd. Since "we believe the environment in which teaching takes place is as important as that in which research takes place," many "fully depreciated" classrooms, such as Warren 145, are being renovated.

The Dean also talked about Life with computers on campus. Over $1 million has been invested in computer facilities for teaching purposes. One facility is in Mann Library and one in 160 Warren Hall, both of which are open and functioning. The third and largest is in 160 Riley-Robb Hall and will hold approximately 80 personal computers.

Getting back to our outstanding students and staff, presently in the spotlight are John Sheeley ’85, who was recently elected a student Trustee for the University; John Kinsella, Chairman of the Department of Food Science, who won a General Foods Professorship ($100,000 a year for five years to support his research); and Cindy Noble ’54, Director of Cornell Cooperative Extension, who received the Governor's Award this year as the Outstanding Woman in Agriculture.

Following these recognitions, alumni were treated to a "magic lantern" slide show by University archivist Gould Colman, focusing on the life and work of Liberty Hyde Bailey.

In keeping with the theme of Bailey Day, Cornell President Frank H. T. Rhodes also addressed the group and spoke of Dr. Bailey's accomplishments and his role as a "molder and shaper" in the development of both the College and the University. Rhodes reminded us that it was during Bailey's tenure as Dean that this Fall Roundup was initiated.

Cornell and Liberty Hyde Bailey were born within a decade of one another, and both were pioneers. "Cornell was a pioneer in education, the first truly American university, created specifically to meet the new needs of a new land... And Liberty Hyde Bailey was motivated by the same type of idea -- joining the practical with the scholarly in new and productive ways."

Bailey was regarded by botanists of the day as throwing away his future as a botanical scholar to be a "mere gardener." But he saw the need to "break down the garden fence -- the wall of prejudice" between theory and practice, and pursued this ideal to the end of a long and productive career spanning almost a century.

Bailey and I. P. Roberts worked hand in hand to gain the trust of farmers and trustees and the love of
their students. Together they established the threefold mission of the College -- teaching, reaching and public service -- which stands to this day.

Following President Rhodes and selections by the women's chorus "Nothing But Treble," alumni adjourned to Barton Hall for Bob Baker's famous chicken barbecue. The Big Red Band with champion baton twirler Corrie West and cheerleaders, entertained the group, and Director of Athletics Laing Kennedy '63 reported on athletics at Cornell.

The group then split up, as many went off to cheer the Big Red on to face Princeton in the first game of the season. Other groups went to look for birds at the Sapsucker Woods Laboratory of Ornithology or to explore exotic and native flora at the Cornell Plantations. Still another group met at the Bailey Hortorium to learn more about Dr. Bailey, his work, and the present-day work of the Hortorium.

Bailey founded the Hortorium in 1935 when he donated to the University his 3,000-volume library, his herbarium of 125,000 dried plant specimens, and almost 100,000 nursery and seed catalogs. Today, the Hortorium continues the work of Dean Bailey, finishing up the project he began in describing the genera of the palms, as well as conducting new and innovative research in other areas of plant studies.

Following the various tours and the football game, alumni reassembled under a striped tent on the Ag Quad. The New Orleans jazz of Peggy Haine '66 and the Low Down Alligator Jass Band kept spirits high -- as did wines by Wickham Vineyards in Hector, NY, (Don Wickham '24) and Merritt Estate Winery (Bill and Christi Merritt, both '67) of Forestville, NY. Cornell Orchards cider, smoked turkey provided by the Plainville Turkey Farm (Bob Bitz '52), Walldorff Vineyards grapes (Henry Walldorff '55) and homemade chicken wings and asparagus hors d'oeuvres courtesy of Jane Adams Wait '43, Roundup '84 Chairperson, rounded out the edible delights.

It was a special day, perfect for reminiscing, and for celebrating the life of one who did so much for the College, his profession, and the young people whose lives he touched. In the words of Liberty Hyde Bailey, "It is a marvelous planet on which we ride, it is a great privilege to live thereon, to partake in the journey and to experience its goodness."

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**CAREER CONVERSATIONS DAY - A BIG TOP SUCCESS**

*by Betsey Donnelly '86*

The 4th annual Career Conversations Day, held September 21, under the big top on the Ag Quad, was a tremendous success. Anne Takemoto, Graduate Assistant in the Career Development Office, coordinated the day's activities.

Thirty-nine alumni of the NYS College of Agriculture and Life Sciences at Cornell from 17 major fields of study, participated in the day long event. A total of 625 conversations with students were recorded by the alumni participants. Student interest in the career fields was obviously high, as reflected in the average of 20 conversations for each alumnus during the day's program.

Career Conversations Day was designed by the Career Development Office as a chance for students to explore some of the many job options open to them and to discuss their career interests with alumni of the College of Agriculture. The annual event is co-sponsored by the College of Agriculture and Life Sciences, the Office of Development and Alumni Affairs, and the Office of University Extension.


The alumni and friends of the College who participated in the event included:

- George Bayer
- John Blackwell
- Robert Bitz
- Gregory Bouchard
- Alton Brand
- Craig Buckhout
- Dale Coats
- Daryl Foster
- Norm Gauthier
- Dorothy Holmes
- Carl Kalk
- Wayne Knitter
- David Lowe
- John Brundage
- Christine Carfi
- Judith Doerner
- Paul Garrett
- Janice Handy
- Robert Ingham
- Alan Knight
- Jim LaMondia
- Howard Lyon

Paul Garret of Agway discusses career options with Mary McCabe '85.
year in conjunction, once again, with Roundup weekend. Since this will be the 5th anniversary of the event, special plans are already being made. Alumni of the college who are interested in participating are encouraged to contact the Career Development Office or the Office of Development and Alumni Affairs.

From Your Executive Director

Working with the CALS Alumni Association these past three years has been challenging and exciting. A week hasn't gone by that one of you hasn't written to our president, or one of our directors, or to me, asking how to get involved and help the association and college.

These are exciting times. Our association leaders are on the move, developing new membership programs, off-campus events, student relations, and in perfecting our present programs for alumni.

My time spent, in behalf of the college, the association, and especially with you the Alumni, has been thoroughly enjoyed and I thank you for the opportunity to serve.

Beginning Mid-November, I become the New York State 4-H Foundation Executive Director where I face new challenges developing statewide support for 4-H. I wish you well and urge you, as CALS Alumni, to be reacquainted with your alma mater, if you haven't yet done so. It's a terrific feeling to belong, and...you're already a member of the family.

Sincerely,

G. H. Hill

Ms. Takemoto pointed out that the 5th annual Career Conversations Day will be held next
Little Hamlets in the Big Woods

The natural beauty of the Adirondack Park in upstate New York is so spellbinding that most people do not pay much attention to the many small towns scattered throughout the area. Few people living outside this region realize that these hamlets, which are groups of 40 or more structures with at least one commercial facility, are struggling to survive.

Time and technology have bypassed most of the hamlets; they appear somewhat frozen in time. While this is part of their charm, it is also their dilemma. Although a constitutional amendment has protected the "forever wild" lands of the park since 1894, the settled areas have developed without an eye on the future.

Some of the park's planning and development agencies met to discuss the real possibility that unless something was done to stop the deterioration of the hamlets and the economy, many residents would have to move. The planning directors from Clinton, Essex, Hamilton and St. Lawrence counties, along with the Adirondack Park Agency (APA), contacted Roger T. Trancik in January, 1983. Trancik, a landscape architecture professor in the College of Agriculture and Life Sciences at Cornell, was asked to devise ways that the residents and local, county and state public officials could use in their efforts to keep the Adirondack hamlets alive.

It was decided to divide the project into two phases. The purpose of the first phase was to develop a marketing plan to make people outside the region aware that these hamlets exist, have tremendous potential and are in need of financial assistance. The second phase focuses on carrying out these strategies.

During the first phase, the 135 hamlets in the park were examined and grouped into 12 sample communities to determine common problems and opportunities for the future. In order to do this, Trancik and a study team visited each of the hamlets and grouped them according to geographical, functional and physical types. Included in the study team were Daniel Krall, assistant professor of landscape architecture; Paula Horrigan, a landscape architecture graduate student; and directors and staff members of the four counties and APA officials. Their findings are summarized in the booklet, "Hamlets of the Adirondacks: History, Preservation and Investment."

"The project's goals are to reverse the deterioration of the hamlets and improve the quality of life for the people living in them," Trancik said.

The problems facing the 125,000 residents are numerous. The hamlets are small and relatively isolated in the six million acre park, which is the largest park in the lower 48 states. Local economies are unstable and unemployment is high. The economic bases of the hamlets are weak because they are primarily one-industry towns, such as mining, and when that industry diminishes or leaves, they have nothing else to fall back on. Another problem is that many of the hamlets rely heavily on tourism and recreation for revenue. These can fluctuate a great deal, however, depending upon the weather and the nation's economy, Trancik said.

An important factor in the planning, according to Trancik, is to strike a balance between economic development and preserving the environment. "This can be a challenge, especially when 40 percent of the park has been proclaimed forever wild and is intertwined with the remaining privately owned land," he said.

White settlers arrived in the Adirondacks during the early 1800s. Lumbering was the first big industry in
the area, followed by iron ore mining. Transportation improvements brought tourists, vacationers and sportsmen to the area. Resorts and grand hotels were built around 1875 to accommodate the visitors. The Adirondacks were one of the most fashionable and popular resorts in the nation.

Transportation improvements brought tourists, vacationers and sportsmen to the area. Resorts and grand hotels were built around 1875 to accommodate the visitors. The Adirondacks were one of the most fashionable and popular resorts in the nation.

Lumbering is still the main industry in the park, along with tourism, farming and maintaining government institutions, such as prisons and county offices. The project members and the park’s residents would like more industries to come to the area.

“One of the major factors that people are looking for in an industrial development is quality of life. We are looking for ways to market the fact that the Adirondacks are a nice place to live,” Trancik said.

They are also trying to develop light, non-polluting industries, such as computer-based businesses. With sophisticated telecommunications and word processing, a business could be run as easily from the Adirondacks as it could in Manhattan, he added.

“That’s what phase two is all about, attracting industries,” Trancik said. The second phase, now under way, is developing detailed plans and strategies for the sample communities. A workbook will soon be printed and distributed to the hamlets as a “hands-on” guide to follow. It will help the hamlet residents and officials interpret the desirable features of the area and improve their individual investments.

“The people living in the Adirondacks must be emphasized, along with the region’s natural resources. In this day and age of rapid urbanization, the blend of human and natural resources remains the Adirondacks’ unique and major asset,” Trancik said.

It will take time and money, however, to attract new industries. Before the area will even be considered, the infrastructure, such as sewage systems, has to be redeveloped. Water and sewage disposal are major obstacles that must be overcome. Since many of the hamlets are located close to the numerous lakes in the park, sewage disposal is a critical problem, according to Trancik.

Improving the visual appearance of public landscaped areas in the hamlets, keeping signs and facades unified and within the traditional architectural “look” of the Adirondacks and sound town planning are some of the mar-

Adirondack Hamlets continued

A typical Adirondack tourist hotel built in the early 1900s.
marketing approaches and ideas Trancik and his colleagues have for the area. These and other approaches to increase the attractiveness and land value for development must be implemented before they can even hope to attract industries, Trancik said.

"The same theory that makes land adjacent to New York City's Central Park so valuable could make the park's natural attributes have a substantially higher market value," he said. By limiting development and preserving land for recreational use, land values will increase because fewer sites are available; it's a matter of supply and demand. In the Adirondacks, the amenity frontage, or land bordering an attractive feature, such as a river, is already located next to restricted land use and open spaces.

"To stimulate development in hamlet areas we need to improve this amenity frontage and access to the forever wild lands — making these lands in essence the region's Central Park," Trancik said. This would benefit not only the housing and recreation-based industries, but also the light manufacturing, high-tech research and development companies, he added.

Tourism will still be a big factor in generating revenue. The 1980 Winter Olympics held in Lake Placid helped the tourism business for a while but did not have any long lasting effect, Trancik said. The Olympic Village housing has been turned into a minimum security prison.

How have the Adirondack residents responded to the study team's visits and suggestions? According to Trancik, the residents are very supportive of the project. "In fact, we haven't had any negative criticism," he said. Apparently Trancik's colleagues are also impressed with the project. He was recently awarded a "Landscape Planning and Analysis Merit Award" from the American Society of Landscape Architects for his Adirondack hamlet study.

Members of the study team visiting a hamlet. Trancik is in the middle.

Company workers' housing on Main Street in Lyon Mountain, an example of an industry-deserted town.
It is a universal problem and a weighty one. Few students who enter college as freshmen are able to avoid it and even fewer realize that they are victims of it until it is too late. They do not realize the problem because the cause is one of everybody’s favorite activities: eating. The result is an unhealthy weight gain best known as the “Freshman 10.”

Every fall, scores of Cornell freshmen put on weight, as much as 10 to 15 pounds before the end of the term. In the fall of 1984, however, Martha Kerwawycz, executive dietitian for Cornell Dining, tried to keep thousands of pounds off Cornell freshmen. A registered dietitian and a 1981 graduate of the College of Human Ecology at Cornell, Kerwawycz is leading a nationwide trend that finds university dietitians doing far more than designing nutritionally balanced menus.

“The reason for the sudden weight gain,” said Kerwawycz, “is consuming too much of certain foods: sweets, fats, alcohol and salt. This is particularly true of freshmen who have left the routine of home life and are suddenly immersed in the freedom and pressures of student life.” Kerwawycz added that weight gain by freshmen is commonplace in all colleges and universities and explained that the result is always the same but the name may differ from place to place, be it the “Freshman 10” or “15.” At Dartmouth, it is known as the “Thayer Layer,” Thayer being a dining hall at the college.

The problem is not a trivial one. According to Kerwawycz, a significant number of freshmen experience weight gain, probably 50 to 75 percent. Some of the causes of the poor dietary habits can be seen in typical freshman excuses: “No time for breakfast, I’ll grab something between classes,” or “I’m too rushed for dinner, a short order is fine.”

The wide and varied selection offered by Cornell’s ten dining units may also be a factor contributing to freshman weight gain. Kerwawycz explained that at home freshmen are generally limited to one entree and one vegetable and a salad, with little choice. When freshmen come to Cornell, however, they are not accustomed to a wide selection of foods with unlimited helpings, such as a board plan offers. So freshmen eat a lot more of many different foods. This can be seen in Cornell Dining’s meal planning. Kerwawycz’s studies show that on the average two to two-and-a-half entrees are eaten by each person at a meal for the first two months of the school year. This number then drops to approximately 1.5 to 1.7 entrees per person for the remainder of the year as students establish more sensible eating habits.

Kerwawycz adds, however, that not all of the weight gain can be blamed on meals eaten on the board plan. Freshmen often indulge in late-night snacks, such as pizza, or taking a “Straight Break,” a break from...
studying by going to the Ivy Room at Willard Straight Hall. Another factor is that for the first time many students are exposed to alcohol in a social setting. "Nutritionally, alcohol is practically worthless and students must realize that they are simply consuming a large number of 'empty' calories when they drink alcohol," Kerwawycz said.

In order to fight the freshman bulge, Kerwawycz has launched an information campaign as part of a nutrition awareness program. The campaign, called "Nu Directions" (Nu for nutrition), was started in the spring of 1984 with a series of articles that were published in various local student and community newspapers on such subjects as alcohol, caffeine, losing weight wisely, nutrition and stress, exercise and the importance of breakfast.

One of the first articles in the series during the fall of 1984 was entitled, "Beating the Freshman 10." In the articles, Kerwawycz discussed the reasons for the tendency of freshmen to gain weight and what steps could be taken to prevent it. In all of her articles, one point remains the same: "Eating a wide variety of foods from the four basic food groups—fruits and vegetables, whole grain breads and cereals, milk and dairy products, and meats and fish—is still the best way to meet your body's nutritional needs."

Kerwawycz has taken the information a step further. Nutrition panels are set up in the University's dining halls at least once a week. The information panels are run by students majoring in nutrition, who analyze the current day's menu from a nutritional point of view and answer students' questions.

Additionally, some of the dining units are implementing the "Creative Cuisine" program in cooperation with the American Heart Association. The foods in this program are lower in sodium, cholesterol and saturated fats, but are still delicious and nutritious. Dining menus have the "Creative Cuisine" sign next to items which are prepared under the program's guidelines, thus helping the student to make his choice of entree, vegetable, dessert and so on.

The focus of Kerwawycz's information campaign is that of a "subtle education." "We do not force anything on anyone," Kerwawycz said. "Plenty of what I consider 'junk food' is still available to students if they want it. But we are providing information that will make it possible for them to choose a balanced and nutritionally sound diet. The choice is theirs."

Kerwawycz feels that the nutrition program will help fight the "Freshman 10" and other dietary problems on campus. Factors in her favor include the emphasis in today's society toward physical fitness and good nutrition and the students themselves. Kerwawycz said, "Student are naturally receptive to information so my hope is that they will learn good dietary habits while at Cornell and then use them to benefit themselves during the rest of their lives."

The salad bar at Balch Dining is checked by Martha Kerwawycz. It is one component of a nutritious diet that will beat the Freshman 10.
Microwaving Milk

by Mary Chanatry ‘85

The process has become almost automatic. You open the refrigerator, grab the milk carton and get ready for a nice refreshing taste from a tall glass of milk . . . aah. But instead your tastebuds are assaulted by an astringent, rancid flavor. A quick glance at the carton’s purchase date explains all; the milk is about 11 days old — past the usual shelf life of pasteurized fluid milk.

If you own a conventional microwave oven, you need not worry any more about milk that is ten, 15 or even 20 days old. A quick, two-minute zap in the microwave when the milk is at its seventh or eighth day mark will kill the psychrotrophic bacteria responsible for the “off” or rancid taste and allow you to keep the milk for up to three weeks, according to Gertrude Armbruster, an Associate Professor in the Division of Nutritional Sciences at Cornell.

Recent studies presented at the annual meeting of the American Dairy Association showed that 40 percent of the milk samples produced in New York state were rated poor in flavor at the end of the average 10.7 day shelf life period.

“The most serious defects,” said Armbruster, “are the fruity, fermented and rancid off-flavors primarily caused by high psychrotrophic counts.” Psychrotrophs produce two types of heat stable enzymes, proteolytic and lipolytic, which cause the off-flavor in old milk. With this in mind, Armbruster and Professor Frank V. Kosikowski MS ’41, PhD ’44, Department of Food Science, set out to extend the milk’s storage period.

Over the years, microwave energy has become more important because of its speed, convenience and energy-saving characteristics. Microwaving has been recommended for the milk pasteurization process and has also been reported to increase refrigerated shelf life of meat products, cured hams and fresh poultry. “We worked under the premise that since most psychrotrophs are readily destroyed by mild heat, microwave heating could be used to extend the shelf life of pasteurized milk,” Armbruster explained.

To test this theory, two-day old pasteurized homogenized milk samples were purchased from an Ithaca supermarket and stored at 6.7°C, a frequently used storage temperature, for eight and 11 days, thus representing the less than maximum and the maximum consumer storage times. The samples were then exposed to microwaves for 85, 97, 108 and 120 seconds. Following a cooling down period, Standard Plate Counts (SPC) of bacteria, as well as Psychrotrophic Bacterial Counts, were made and compared to the counts made from control samples. The Standard Plate Count measures all the microbial growth in the milk, while the Psychrotrophic Count registers only the psychrotrophic bacteria present.

Because psychrotrophic bacteria naturally grow in refrigerated milk, the count sample showed that large numbers of psychrotrophs were present in the milk samples even though the initial counts were low in the fresh milk. In contrast, the psychrotrophic count was effectively reduced to zero when treated at temperatures of 55° or 60°C for 120 seconds. This was only true, however, when the initial counts of psychrotrophs in fresh milk were low. “All this means,” claims Armbruster, “is that milk samples with a high psychrotrophic count could require higher temperatures or longer microwave treatment at 60°C in order to reduce psychrotrophs to a nondetectable level.”

Similarly, the microwave treatment to reduce the Standard Plate Counts was most effective at 60°C for 120 seconds. This is because the standard counts consist primarily of psychrotrophs and this is the method that destroys the most psychrotrophs.

Armbruster’s results suggest therefore, that in order to obtain a longer shelf life, the psychrotrophs must be contained at the lag phase level, a level where they will not produce the enzymes causing the off-flavors. Although heating milk has been known to impair flavor, early exposure to microwaves keeps the enzyme levels down and thus keeps the flavor damage down as well. Informal taste tests conducted by Armbruster and Kosikowski indicated that the taste change of microwaved milk was minimal and could be compared, for ex-
Reduction in psychotrophic bacterial counts after exposure of 8- and 11-day old pasteurized milk to microwave radiation.

ample, to that of the Cornell processed milk sold daily on the Cornell campus. The Cornell processed milk, incidentally, does not need this microwave treatment. During its pasteurization process, the milk is cooked much longer than other processes thereby increasing its shelf life but also producing its slightly cooked taste.

"But, the flavor change is not a problem," explains Armbruster. "When milk was first pasteurized on a regular basis, many people complained about its altered taste. Now, however, that 'new' taste is not so new and is no longer a problem. Microwaved milk is in that same situation."

Several advantages to microwaving milk come to mind. The process requires less time than other conventional methods, it is not apt to produce undesirable flavors or other quality changes and consumers can process their milk right in the store-bought container. In addition, because consumers can do the processing on their own, the price of the milk will not be affected. And Armbruster's recipe for microwaved milk is indeed very simple.

If, after storing the milk for about seven or eight days, you still have some remaining, place the milk into any microwave-safe container and cook it for two minutes at the high setting (60°C). Return the milk to the refrigerator and use as needed. The result; one week to ten days of extra storage time.
Are teachers biased, either consciously or unconsciously, against children who are poor or are members of a minority group? And if they are, is that why these children do not perform as well as their peers in school? These are some of the questions that Emil Haller, Professor of Education at Cornell University's College of Agriculture and Life Sciences, has been trying to answer. Results from studies he has conducted are contrary to views previously held by educators.

"The general argument that has been advanced is that teachers primarily have middle-class backgrounds. They have certain expectations of how pupils are going to behave. When they are confronted with minority or poor children whose dress or speech patterns may differ from white middle-class students, they tend to react negatively to those children," Haller said.

This negative reaction may lead to placing children in lower groups, not because they are less capable, but because of this negative attitude. Haller's research has focused upon...
whether or not race and socioeconomic status influence teachers' judgments when placing children in groups.

This research is significant because children are placed in groups according to their ability as early as first grade, usually at the teacher's discretion. Grouping students according to their academic levels is called "tracking," and is widely used in the secondary schools to direct students into certain academic areas.

"Kids who are going to college are often placed in a college-oriented track where they study different things from kids who are not going to college," said Haller.

Many of the students in lower groups or tracks within the American educational system are from poor families or minority groups. It has often been argued that teacher bias is a cause of this overrepresentation of poor and minority children in these lower tracks.

Are these children given the same chance to succeed in school and life as the white middle-class children? Of course, people who are born into wealthy families usually have more opportunities at their disposal to get ahead in life and maintain their high social status than those born to poorer families.

"The purpose of the public school system in this country has been to break the link connection that where you start out in life is where you end up," Haller says. He adds that if the theory of teacher bias is true, then instead of breaking this link, schools have reinforced it.

Haller's study, however, suggests that teacher bias is not the cause of the overrepresentation of poor and minority students in lower tracks. If his findings are correct, what is causing this phenomenon?

There are many variations of theories about overrepresentation. One theory widely held during the 1960s was called "compensatory education." According to this view, mothers of poor and minority children were not stimulating their children educationally as well as white middle-class mothers did. For this reason, poor and minority children were arriving at the schoolhouse door less ready academically than their peers. Headstart programs were begun to try and substitute for this presumed lack of educational stimulus in the home.

Professor Haller has been conducting research on teachers' biases throughout the eastern states for the past seven years. Two years ago he selected 60 public elementary classrooms and examined reading groups in the fourth, fifth and sixth grades because, according to Haller, that is when a teacher might be biased.

"Teachers form their own reading groups based on their own judgment," Haller said.

He asked the teachers to pretend that they were making recommendations for the next year's teacher. The teachers' opinions were then compared with standardized achievement tests given to the students and information gathered from the students' parents about their socioeconomic status. He concluded that there was no pervasive teacher bias influencing student placement.

What is Haller's opinion on the cause of overrepresentation of the poor and minority children in the lower tracks in the public schools?

"In the first grade you begin to see the difference between poor, minority and middle-class children right away. Since these differences occur so early in the childrens' academic lives, they suggest that something may be going wrong outside the schools as well as inside them."
NEW WAVE LEARNING

by Kerry Bitner '85

It has finally happened. The “ultimate educational tool” has arrived. Computer assisted interactive video equipment has been combined with the appeal of television to help students increase their retention and learning rate.

It is no longer a vision of the future. Technology can now incorporate the best computer graphics, film, slides, fast and slow motion, freeze frames and multiple audio tracks into an interactive educational system.

Some people are afraid to use the technologies in education. “Interactive video is an educational tool like pen and paper that will enhance the classroom—not replace it,” said Geri Gay MPS '80, research support specialist in the Department of Education at the New York State College of Agriculture and Life Sciences.

Gay is testing interactive video systems on Cornell University students. These systems are made up of a television, a computer keyboard and screen, a video cassette recorder (VCR) or video disc player and a printer. The video player communicates with the computer through an interface board. Thus, a student can control the video. The printer records students’ input into the computer.

Students use programs designed to teach specific material. The programs are quite versatile; students may choose which material they want to learn, ask and answer questions and ask for alternative examples and explanations. The computer corrects mistakes and provides guidance.

When 35 college students were trained to use video equipment, their retention level was 60 percent. Using interactive video systems, they retained 95 percent and learned the material much faster, according to Gay.

Gay develops educational programs as part of the research she is doing for her PhD. This fall she developed an experimental program for biology students which explains the concepts of protein synthesis. She tested the program on 100 introductory biology students and said they responded very favorably.

“It is expensive and time-consuming to develop a program; it’s like writing a book,” Gay said. She first consults with experts in the field to find out what concepts need to be taught, and then she develops a concept map. To make the map, she lays out pieces of paper representing each concept on a big board and draws arrows between related ideas. She must then choose the best way to portray each concept; piecing together a combination of text, audio and video material.

“One of the great advantages of interactive video is the ability to depict things people cannot see,” Gay said. For example, people can examine microscopic images, look inside an engine or “travel” to foreign countries.

Instructors can use the printouts from each student to monitor their progress. Gay is also doing research on students’ printouts to study how they learn. She said that interactive video is an educational equalizer because it allows students to learn at an individual pace, skipping or reviewing wherever they choose.

Most funding and research for finding applications for new technologies goes into areas like the military and industry. For that reason applications in education have been neglected. According to Gay, “Educational software is mediocre and unimaginative. We are just now beginning to catch up.”

People at Cornell have shown interest in the systems. Gay consults with faculty members in many departments. “We have the technology. It just needs to be applied,” Gay said. She predicts that interactive video will be used in several departments within the next five years.

The Law School is interested in using interactive video to simulate courtroom trials, and the School of Hotel Administration is also looking into possible applications, Gay said. Interactive videos are being applied in many other ways. Gay said they are being used to train military personnel; they can simulate flying similar to the video game “Dragon’s Lair.”

A program has also been developed that can train people in cardio pulmonary resuscitation (CPR). The computer is connected to a life-sized mannequin on which students practice life-saving techniques while the system gives them feedback on the “patient's” condition.

Interactive video systems could be applied in numerous other ways. “We are limited only by our own imaginations,” Gay said, “The potential is as vast as the human mind.”
Outstanding Alumni

Stanley W. Warren ’27, PhD ’31, Clifford F. Luders ’38, MEd ’57, and Frank L. Wiley ’44, were honored as “Outstanding Alumni” of the New York State College of Agriculture and Life Sciences.

The three men received their awards during the 1984 “Autumn Roundup” and “Bailey Day” sponsored by the ag college’s alumni association. Approximately 500 friends and graduates came to honor the accomplishments of Liberty Hyde Bailey, the College’s first dean.

Warren, professor emeritus of farm management who received Cornell degrees of BS (1927) and PhD (1931), travelled to China to pioneer research in Chinese agriculture upon graduation, and returned to join Cornell’s faculty in the Department of Agricultural Economics in 1933. He has served as treasurer of the College’s alumni association since he retired in 1972.

Luders taught vocational agriculture for 40 years in Erie County, New York. He served as alumni ambassador to more than 34 Erie County high schools, acted as president and vice-president of the College’s alumni association and has been president, vice-president, secretary and treasurer of the Association of Teachers of Agriculture in New York. Luders earned both his BS (1938) and MEd (1957) degrees from Cornell.

Wiley owns and operates FranLee Farms, a 400-acre registered Guernsey and cash crop farm. Since graduating from Cornell in 1944, Wiley has contributed his time and knowledge towards improving breed quality, marketing opportunities and agricultural legislation through various national and state organizations. Serving for 30 years as New York State Fair Swine Superintendent, he is also a member of Cornell’s advisory board of the animal science department.

B. Eliot Wigginton ’65 and John S. Dyson ’65 were honored as “outstanding alumni” of the New York State College of Agriculture and Life Sciences this past summer. Not only were both successful in their respective fields, but Wigginton and Dyson were also roommates and fraternity brothers at Cornell in the 1960s.

Active as undergraduates, Wigginton and Dyson were officers in Alpha Delta Phi fraternity, president and treasurer respectively.

Wigginton established a growing national appreciation of local/ethnic folkways and culture through his development of the Foxfire Project and a series of magazines and books. Dyson, a former New York State Commissioner of Agriculture and Markets, and the former Secretary of Commerce credited for the successful “I Love New York” campaign, is now Chairman of the New York Power Authority. He is also a Cornell trustee.

Wigginton’s Foxfire Project incorporates a course of study on photography, folklore and music, in which students interview the elderly about their lives, customs, crafts and traditions. The material is then compiled for Foxfire magazines and books. Three hundred students and 19 employees work out of Rabun Gap, the operations base of 25 log cabins. Wigginton’s ultimate goal is job and leadership development in Appalachian communities.

Dyson, who is a director of the Foxfire Fund, provides counsel and financing for the project as well. In addition to being a director of the Dyson Foundation and Wallace Murray Corporation, Dyson is chairman and sole owner of E.P. Dutton, a publishing house that promotes reading among children. His activities in professional and civic organizations include the Wilderness Society, National Trust for Historic Preservation, and the Association for American Indian Affairs. Dyson has also served on the advisory councils of the College of Agriculture and Life Sciences, the School of Industrial and Labor Relations and the College of Veterinary Medicine.

These five recipients bring the total to 22 honored with the College of Agriculture and Life Sciences’ “Outstanding Alumni Award,” established in 1977.

News From Geneva

Melanie Lipinski Wickham, ’82, has been appointed editor-manager of the publications department at Cornell’s Agricultural Experiment Station, Geneva. Wickham’s primary responsibilities will be in the development and expansion of the Station’s communication and public information program, as well as serving as editor and manager of the publications department.

Dr. Gary E. Harman has been appointed chairman of the new Department of Horticultural Sciences at Cornell’s Agricultural Experiment Station, Geneva. During the last year, the departments of seed and vegetable sciences, and pomology and viticulture were combined to form the horticultural sciences department. Harman will serve as its first chairman.

Dr. Terence L. Robinson has been appointed assistant professor in the Department of Horticultural Sciences at Cornell’s Agricultural Experiment Station, Geneva.

Robinson’s primary goal will be to develop and evaluate orchard systems for tree fruits in New York.

A study that led to the development of a method for predicting density and temperature of corn or forage stored in silos has brought national honor to a Cornell agricultural engineer.

Ronald E. Pitt, PhD ’80, assistant professor of agricultural engineering, has been named the recipient of a 1984 Paper Award given by the American Society of Agricultural Engineering (ASAE) for his research paper “Mathematical Prediction of Density and Temperature of Ensilage Forage.” Pitt won two similar awards in 1983.
The Big Redwood
by John Rudan '85

Roberts Hall is a familiar sight to many people who pass through the ag college at Cornell; it has been for years and years. Yet, as one enters Roberts nowadays there is something strikingly unfamiliar. Just walk through the front door and there it is. Could it be a gift from a rich alumnus? Perhaps it is a horti-

culture class project, or the lifetime work of an agronomy professor. The answer is none of the above. The object being referred to is a large redwood plaque bearing the logo of the College of Agriculture and Life Sciences (CALS).

The plaque is the brainchild of acting dean Kenneth E. Wing '58, MEd '60, PhD '66. "Just because these buildings are old does not mean they have to look dilapidated," said Wing, "and to say the least, Roberts Hall was pretty unsightly a few years ago. The paint was an ugly green, there were holes in the walls and the first thing one saw on entrance was a huge, cluttered bulletin board. The whole scene really made a bad first impression."

A beautification of Roberts Hall was started in September, 1983. Dean Wing said it was given a fresh paint

job, the holes were filled, and the bulletin board, in all its ragged and flailing glory, was relieved of its services; may it rest in peace.

"My first idea to fill the void left by the bulletin board was to have the red and white CALS logo painted on a large piece of plywood and mounted in the empty space," said Wing.

It was at this point that Cornell Media Services in Roberts took over. "Dean Wing came to us with the idea of the plywood and paint logo," said James Mason, manager of publications and visual communications of Media Services. "But I thought the redwood carving would look nicer, perhaps a bit more 'natural,' relating to the ag college. I had seen many of the same type of wooden signs around town and was quite impressed."

"Actually, the cost of the carved plaque was a lot less because of a special sand-carving process and was only $200 more than a painted plaque," Mason said.

The plaque was installed in May, 1984, framed by the Roberts mezzanine stairs and illuminated by a single spotlight. "At first we were going to put a plastic cover over the plaque," said Wing, "but then we decided it would probably detract from its natural beauty, so we left it uncovered."

The CALS plaque is definitely a showpiece for the College, but was it really worth the investment? "I think so," Dean Wing said. "It's attractive, durable, secure and transferable at a later date. It is worth much more than the $200 over what the paint and plywood sign would have cost."

"We consider the entrance of Roberts as the 'front door' of the ag college, and to make the initial impression a good one, the plaque is a small investment. The plaque adds to our stature as the number one ag college in the country, and I believe it helps make the favorable first impression." And just one look at the CALS redwood plaque will justify that statement.

New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.
CORNELL COUNTRYMAN
January/February 1985 Volume LXXXII Number 4

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About the Issue
Cornell Alumni; what has happened to them since they graduated? In this issue we will take a look at alumni who have become involved in politics, Cornell athletics, farming and the weather. Then jump on board the Gadabout bus with one of your favorite Cornell professors and read about alumni and their jobs, how Cornell graduates can find jobs, and how one alumna carres on a tradition. And don't forget to say Happy Birthday to Ezral!

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisor: Jane E. Hardy; Layout Advisor: Stephanie Lehman.

It is the policy of Cornell University actively to support equality of education and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age, or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.
In 1980 Judith Riehlman, wife and mother of three, graduated from Cornell’s College of Agriculture and Life Sciences at the age of 39. She is an alumna whose perseverance has established her as a leader.

Though Riehlman was born in Odgensburg, New York, she was raised in Pulaski, New York, and moved to Preble in Cortland County in 1957. Riehlman became a farmer’s wife when she married Hugh Riehlman, who now owns in partnership a 600-acre dairy farm in the Homer-Preble valley. “It’s marvelous to be a farmer’s wife,” Riehlman said.

Exposure to farming plus her heavy involvement in Cortland County’s Farm Bureau ignited her interest in public policy issues related to agriculture. From 1970 to 1980 Riehlman served as legislative aide to assemblyman L.S. (Steve) Riford, who is now a New York state senator. Riehlman developed goals through increased involvement in governmental affairs. As a result, she decided to enroll in the ag college at 37 years of age.

How does a mother of three adjust to having peers old enough to be her children? Very well! “It was exciting to be with college students who were just a little older than my children. As a result, I had a better rapport with my children. I knew where they were coming from,” Riehlman said.

Riehlman enjoyed studying at Cornell and only regrets that she did not have enough time to get involved in student activities. “I felt very much at home at Cornell. I did not feel like an older woman or mother. However, the 30-mile drive from my home to Cornell made it almost impossible to take part in extracurricular activities,” she said. Riehlman majored in agricultural economics and found the ag college’s faculty a stimulating group of people. She greatly admired the guidance of Prof. George Connerman BS ’52, MS ’56 who is now Director of Instruction at the College.

After graduating, Riehlman stayed on working at Cornell as a research aid for the State Land Use Specialist of Cooperative Extension. She worked with Kenneth Gardner, Senior Extension Associate, in a problem-solving capacity related to the valuation of agricultural land and buildings.

1984 seems to be a year where Riehlman’s experience and popularity have given her ample rewards. She has been elected president of Cornell’s Ag College Alumni Association, president of Cortland County’s Cooperative Extension and in November 1984, Cortland County Clerk. Riehlman is a proven leader and truly enjoys her work. “I enjoy working with people very much. Now as the county clerk I will be able to meet a wide variety of people, as I did at Cornell.”

As Cortland County Clerk, Riehlman will be responsible for a great deal of information such as census, civil, supreme court, property and passport records. She is also responsible for the County’s Motor Vehicle Department. This complex network of maintaining records will be managed by Riehlman, and, thanks to technology, she will work with computers.

What are Riehlman’s plans for the future? “I would just like to become established in the county clerk’s office. Of course my family is still my number one priority. This is essential in a farm family because of the nature of farm operations. It is important to be available and nearby.” By speaking to Riehlman, one can tell that the enthusiasm and pride she shows is not limited to her career, but also overflows to her family life.
LAING KENNEDY:
Giving Cornell Athletics Its Direction

by Jaan V. Janes '85

If you were a student in Cornell's College of Agriculture and Life Sciences in the early 1960s you might have known a hockey playing, Canadian animal science major by the name of Laing Kennedy. A question to Kennedy might have been, "Where's the beef?" and Kennedy's answer may have dealt with animal genetics, nutrition or beef cattle production. Ask Kennedy that question today and the answer will be quite different, probably dealing with hockey pucks, footballs, volleyballs and basketballs. This is because Laing Kennedy is Cornell's athletic director.

Kennedy, a star of Big Red hockey teams in the early 1960s and a Cornell administrator for 11 years, took office in August of 1983 when Michael Slive resigned. Slive spent two years as Cornell's athletic director before returning to the private practice of law. At the time Kennedy was appointed to his position, Cornell President Frank Rhodes said, "[Kennedy] has an intimate knowledge of Cornell and the community, and a deep commitment to both. He has an outstanding record as an athlete, as a coach and as an administrator."

So how does one go from being an animal science major to the athletic director of a major university? Kennedy did not follow the typical route of working in athletics all along. Rather, upon graduating from Cornell, Kennedy worked in agricultural and administrative positions, while all the time keeping an interest in athletics. "No matter where my career was, I kept a sincere interest in athletics, be it as a player, coach or administrator," Kennedy said.

Kennedy came to Cornell in the fall of 1959 from Woodstock, Ontario. He was active on campus as a member of Hoh-Nun-De-Kah, the ag college's honorary society, Red Key Society and as a dormitory counselor. But Kennedy is best remembered for his years on the ice as goalie of the Big Red hockey team. After a year on the freshman team (freshmen were not allowed to play varsity in those days), he started in the nets his sophomore, junior and senior years. He captained his senior year, earned honors as an All-Ivy leaguer his last two seasons and was All-East in 1962. Additionally, he was chosen Cornell's Athlete of the Year in 1963, while winning the Nicky Bawlf Award as Cornell's outstanding hockey player for three straight years. Kennedy's prowess earned him a spot in Cornell's Athletic Hall of Fame in 1980.

It is only natural that Kennedy's fondest memory of Cornell is a hockey game. Unfortunately one of his most disappointing moments was also during a hockey game. In 1962, the Big Red, with Kennedy in goal, defeated Harvard at Lynah Rink for the first time in the history of Cornell. "Harvard came in as the defending national champion with a 15-0 record," Kennedy explained. "We beat them 2-1, and I can't put into words the emotion and excitement of that game. From that year on, Cornell became a perennial playoff team."

A loss to Brown during Kennedy's senior year still brings bad memories to mind. "We were playing Brown, and the score was tied 1-1 when the Brown coach pulled his players off the ice to protest the officiating," Kennedy said. "Eventually, Cornell's athletic director Bob Kane convinced them to continue playing, and they beat us on a long shot from inside their own blue line. I remember seeing the puck bounce on the ice and then go by me for a 2-1 Brown victory. I'll never forget what that shot looked like."

Kennedy's playing days came to an end when he graduated in 1963. He took advantage of his animal science degree and returned to Canada to work for the Ontario Department of Agriculture. In 1963, Kennedy returned to Canada and worked for the Ontario Department of Agriculture.
of Agriculture until 1965 when he became the director of 4-H Club activity for New York's Genesee County. In 1970 Kennedy became Tompkins County's Cooperative Extension agent for 4-H activity. After two years, Kennedy came back to Cornell as assistant to the dean of the ag college. Then in 1975 he was named director of Cornell's Public Affairs Regional Offices. That was where Kennedy stayed until his appointment to athletic director.

Kennedy felt the shift from public affairs to athletics was a natural one. "I simply transferred the administrative skills and leadership that I had learned to a new field," Kennedy explained. "My work in extension programs was my greatest teacher in terms of what I had learned about people, especially volunteers. I learned how to motivate people.""

Along with his administrative ability, Kennedy kept an active interest in sports. He coached hockey for six years at a number of places including Ithaca High School and Cornell. Under Kennedy, Ithaca High went 19-4-1 and won the state title in 1971-72. He coached Cornell freshman hockey to a 46-4 record over three seasons.

"My main objective as athletic director is to insure that every member of the Cornell community has the opportunity to participate in good athletic programs at the level of his or her choice, be it intercollegiate, intramural, club or a physical education class," Kennedy said. Kennedy has five goals that he wants to see accomplished while he is athletic director.

"The first deals with the organizational structure of the department. I want it to be the best managed department on campus and I want it to include the best student-athletes, coaches and administrators possible."

Secondly, Kennedy sees a need to renovate and upgrade facilities. "No major improvements have been made in the last 26 years and present facilities are deteriorating," Kennedy observed. "Unfortunately, the growth of athletic facilities has not matched the growth of the university.""

Laing Kennedy discusses Big Red football with head football coach Maxie Baughan.

Thirdly, Kennedy wants to improve the marketing of Cornell sports. He would like to make Cornell sports more visible in the media, thus creating interest which will hopefully sell tickets and create excitement for Big Red sports.

Kennedy also wants to increase the involvement of alumni through organizations such as booster clubs. "We rely heavily on the alumni for moral and financial support to run the department," Kennedy explained.

Finally, Kennedy wants to prioritize the department in terms of winning Ivy League titles. Emphasis would first be put on programs that have the potential for success and involve the whole campus.

Can Cornell compete with other big-time athletic schools? Kennedy feels that Cornell can because Cornell, like the other Ivy League schools, is an alternative. "Many outstanding students can pursue academic careers at Cornell and build strong foundations for the rest of their lives while still participating in strong athletic programs," Kennedy said. He explained that there has been a trend among schools, especially Cornell's Eastern Collegiate Athletic Conference hockey opponents, to try and match Cornell and become more academic but still maintain strong athletic programs.

For Kennedy, being athletic director is both a challenge and a dream come true. "I can not think of a more challenging time to be the athletic director at Cornell," Kennedy said. "We are attempting to uphold the Ivy League philosophy that academics come first and, at the same time, provide an excellent athletic experience."

Going from animal science to athletic director suits Kennedy just fine. "Being athletic director at my alma mater is both a privilege and something that I cherish," Kennedy said. "It's rare that someone has the chance of following his dream like I have. I know what it means to pull on the Cornell jersey and I know the pride and tradition that is behind it. I'm dedicating my professional life to developing a preeminent physical education and athletics program at Cornell."
Most farmers are not senators. Most senators are not farmers. Yet William T. Smith, '38, does not fit either mold. He is both a New York state senator and a Chemung County farmer. Senator Smith proudly bears many all-American titles such as husband, father, senator and owner of an 800-acre grain and poultry farm in Big Flats, New York.

Senator Smith’s entry into politics is a unique and interesting story. Upon graduation from Cornell’s College of Agriculture, Smith returned home to work on the family’s four-generation-old Smithome Farm. At this time, the federal government, in an effort to curtail the country’s grain surplus, implemented programs to discourage wheat production.

Under President Kennedy’s administration, the government developed a system by which they paid farmers not to produce grain. “I had never voluntarily been involved in these agricultural programs. I resented them. However, I did go into this program and was paid $6,500 with which I bought a Cadillac. Then I put a sign on the back of it thanking the President, the Secretary of Agriculture and the taxpayers for their generosity,” the Senator recalled. This episode brought Senator Smith two things: national notoriety and a nickname, “Cadillac Smith.” One year later, in 1962, Smith defeated his district’s incumbent senator in a primary, won the general election and began his 22-year career in the State Legislature.

In 1973, Senator Smith’s 25-year-old daughter, Judith Smith Kelemen, was struck and killed by a drunk driver in Ithaca. This tragedy caused the Senator to push for tougher drunk driving legislation in New York state.

Senator Smith initiated the idea of producing “Until I Get Caught,” a
nationally acclaimed documentary released in 1979 which focused on society's attitudes towards drunk driving. This film was produced in conjunction with Professor James Maas, MA ‘63, of Cornell’s Department of Psychology. “I am very appreciative of the facilities we had at Cornell to make this film. It was a very well done film that took about 18 months to complete. It had a tremendous impact on the drunk driving issue on a national level.”

In 1980, Senator Smith was named Chairman of the Senate Special Task Force on Drunk Driving. Since that time, he has been involved in the passage of more than 30 bills to curb drunk driving.

STOP-DWI, the keystone of New York's effort to stop drunk driving, was authored by Senator Smith in 1981. Under this law, fines paid by persons convicted of drunk driving are returned to the county in which they are imposed. This money is used for financing drunk driving deterrence programs, prosecuting drunk driving offenders or meeting local needs related to this problem. “In the last two years, there have been 1,000 fewer highway deaths due to drunk driving than the two previous years. And, of course, this does not include the thousands of serious accidents that have not occurred since the programs have been implemented,” Senator Smith said.

In April, 1982, the senator was appointed by President Reagan to serve on the Presidential Commission on Drunk Driving. Presently, Senator Smith is a member of the National Commission Against Drunk Driving and is on the National Board of Directors of Students Against Drunk Driving (SADD).

In addition to fighting DWI, Senator Smith has also been instrumental in shaping New York state’s public welfare policies. From 1971-1978, he was Chairman of the Senate Social Services Committee. Since 1971, he has chaired the Temporary State Commission to Revise the Social Services Law, a bipartisan group charged with oversight of New York's public assistance and Medicaid programs. This past session saw passage of the Teenage Services Act to deal with social and economic problems stemming from adolescent pregnancies.

Other social service bills sponsored by the senator include home health care legislation to ensure proper care of the elderly and child support legislation which enables governmental authorities to locate parents who have abandoned their children.

With the statewide reapportionment that occurred in 1980, Senator Smith acquired Seneca and Yates counties, a region noted for its vineyards. In response to critical problems in the New York state wine and grape industry, Senator Smith was named chairman of a special senate majority committee to address the situation. As a result of the committee’s report, laws were passed allowing wine sales at farmers’ markets and fairs, wine tasting in package stores and the sale in supermarkets of “wine coolers” containing New York state wines. Wine coolers are low alcohol wines (less than six percent alcohol content) to which fruit juices have been added. These laws substantially increase the market for New York state wines.

Outside of his position as Deputy Majority Leader in the Senate, Senator Smith is a member of the Big Flats Rotary Club, Elmira Kalurah Shrine and a past member of Cornell’s College of Agriculture and Life Sciences Experiment Station Advisory Council. He has received numerous awards including the New York State Youth Services Award (1974) and Outstanding Legislator of the Year (1983) from the National Republican Legislator’s Association.

Senator Smith’s unusual combination of talents; that is, as a legislator and farmer, has proved to be quite an anomaly. Since the early 1960s, the time of the Cadillac Smith episode, he has consistently spoken out on issues crucial to the welfare of the people across all New York. Here’s hoping that Senator Smith fills his seat in Albany for many terms.
And now with the weather...

From radio to television: Meteorologist Kevin Williams relaxes off-camera.

"I knew when I was young exactly what I wanted to be when I grew up. While most children would have been terrified by thunderstorms, I was fascinated by them; my mother noticed this when I was still in a crib at the tender age of three. I guess it was my destiny to be a meteorologist."

A quote, perhaps, from the famous television meteorologist Lloyd Lindsay Young? After all, his TV promo on Channel 9 in New York City reads almost exactly like the above passage. Actually, Lloyd did not utter those words, rather, it was central New York's most famous weather personality, Kevin Williams '81, graduate of the Meteorology Unit of the Department of Agronomy at Cornell. Certainly over the past four years it has been difficult to miss Williams' voice on the radio or his image on television.

Very few people receive their career "calling" at a young age, but it seems that Kevin Williams is the exception. Williams' most formidable early influence (besides the thunderstorms) was a meteorologist named George Goldtrap, who worked for TV station WBBH in Ft. Myers, Florida. "I saw George when my family was in Miami for the Super Bowl in 1970," said Williams. "I loved his act as a TV weatherman, but I also loved his warm personality; he was a real person on the TV. I guess I've modeled myself after him, and we still keep in touch today."

While growing up in Dix Hills, N.Y., Williams said his parents supported his desire to become a meteorologist, although they showed him that not all aspects of meteorology are as glamorous as being a TV weatherman: "My mother took me to Mt. Washington in New Hampshire," Williams recalled, "where they have the 'world's worst weather.' It certainly wasn't very pleasant, either, sitting on top of a cold mountain recording weather statistics. I think it was at this point I became a 'student' of radio and TV weathermen, because I didn't want to be the person in the cold shack!"

The pursuit of meteorological education brought Williams to Cornell in the fall of 1977. "I chose Cornell for several reasons," he said, "They have a good meteorology department, but I also liked the fact Cornell was an Ivy League college, and I could get a real broad-based education. There was also the fraternities, the sports, the beautiful setting and the strong alumni program. I was thoroughly impressed by Cornell."

And people who know Kevin will vouch for his staunch dedication to the University. Three years after his graduation, one can still spot him at Cornell hockey, football and lacrosse games, and more than once the Big Red has been mentioned in his forecasts. "In fact," said Williams, "one reason I've remained in central New York is to be close to Cornell."

While attending Cornell, Williams first gained experience in radio broadcasting by doing weather forecasts for WHCU during his freshman year. "The professors in the meteorology department were good at seeing there was a chance for the students to get some practical experience," said Williams. Continuing to sharpen his broadcasting skills at a private New York City weather service over summer vacations, Williams hit the Ithaca airwaves as a personality weatherman, both on radio and TV, in the fall of 1980. "I volunteered at WTKO and WICB-TV," Williams said. "After a few months, WTKO station manager Bob Lynch '72 noticed my forecasts were doing well. They were getting advertising sponsors, and the listener response was good, so they hired me as paid staff member."

"I must admit it was quite a senior year for me: being a full-time student and a full-time meteorologist. There was never a dull moment," he said.

After graduating in 1981, Williams
and two partners formed the WeatherCenter, Inc., which operated out of the Dewitt Building in downtown Ithaca. However, the WeatherCenter was hardly a local operation, as Williams and his staff gave "customized" forecasts to over 50 stations from Maine to Texas. There were also weather reports for highway departments and ski resorts across the U.S. "Most of our clients were small businesses," said Williams, "but we also gave weather reports for huge corporations such as Exxon and General Foods."

In the summer of 1983, the WeatherCenter moved out of the Dewitt Building. Williams noted several factors that initiated the move, including the realization that he would never reach his goal of being a TV meteorologist if he just concentrated his efforts on radio reports from the WeatherCenter.

Williams continued his weather consulting from his apartment in Ithaca for a "few preferred stations," while he waited for his chance to break in to television. That chance finally came in the fall of 1983 when one of his clients informed him of a part-time, weekend meteorologist's opening at station WOKR, Channel 13, the ABC-TV affiliate in Rochester, N.Y. Williams "auditioned" for the job, and beat out two other prospects.

"My experience at WICB-TV came in handy," said Williams. "It gave me the edge over the other people trying out for the job because I was used to the TV studio environment: the bright lights, the cameras and the cues. I have to thank WICB-TV station manager Paul Smith for giving me a chance to work in television; it proved to be an invaluable experience."

So, Williams was literally leading a double life, doing radio forecasts in Ithaca during the week and commuting to Rochester on the weekends to assume the role of TV meteorologist at Channel 13. And although Williams loves weather, sometimes it has made his life unpleasant. "I really paid my dues as a commuter," he said. "There were times in the winter when the driving was really dangerous and some weekends I didn't get any sleep because of my hectic schedule and the treacherous winter roads."

Finally in the spring of 1984, Williams no longer had to make his weekend treks to Rochester as he was hired full-time by Channel 13. "I had received other full-time offers," Williams said. "WHEC, Channel 10, the CBS affiliate in Rochester made me an offer for full-time employment, but I had already made a commitment to Channel 13. They made me an attractive offer, which included the full-use of their weather equipment to use for my WeatherCenter forecasts."

"I'm happy I made the decision to stay with WOKR. They have superior weather forecasting equipment, including radar-tracking and color graphics, definitely the best in the Rochester market," noted Williams.

Weather is now keeping Kevin Williams busier than ever. After rising five days a week at 2:30 A.M., he can be seen on Channel 13 six times every morning, with cut-ins during ABC's "Good Morning America" program, short weather blurbs on Channel 13's A.M. talk show and for a full-four minutes during the noon news. WOKR is not on the Ithaca cable system. However, Williams' TV weather forecasts can be seen in some parts of Tompkins County if you have a good antenna. And Williams' presence can always be felt (heard) on FM-93 (WVBR) many times during the morning and throughout the rest of the day.

Was the transition from radio to TV difficult for Williams? "Not really," he said. "I did have a little TV experience which helped me with the logistics. Whether I'm doing WeatherCenter forecasts on the radio or TV weather on Channel 13 my philosophy is the same: You have to 'talk' weather and be able to relate it to the people who are listening or watching. There is more to a weather forecast than just saying, 'Well, uh, its going to be partly cloudy today and tomorrow.' I like to convey the essence by using descriptive terminology such as 'bitterly cold' or a '3-D (damp, dreary and dismal) day,' which always gets me some flak from my friends for my overuse of the phrase."

"Sometimes, though, I'll think about the large number of people who'll be watching me on TV and I'll get a mild attack of stage fright. I usually put this out of my mind by thinking that I'm talking to just one person, rather than a whole audience," Williams said.

Kevin Williams is now a TV meteorologist, achieving a goal he set for himself many years ago. What's next? Should Lloyd Lindsay Young be worried about his job security? "Working in New York City would be nice, money-wise," said Williams, "but working there is not a goal in my life. One day I may move on, but for now I'm happy; Rochester is a great place to work, I still own and run the WeatherCenter, and I'm close to Ithaca and Cornell. Who could ask for more?"

...and hard at work on-camera!
A bright yellow bus pulled up to the curb and parked in front of Terrace Apartments in downtown Ithaca. The driver got out and disappeared into the lobby of the building. Five minutes later he was helping a smiling, gray-haired woman of 65 board the bus. The woman settled into a seat next to the window, handed the driver a small, sealed envelope and propped her cane up against the padded railing in front of her. She glanced down at her watch, cheerfully noting that she would be early for her appointment.

Does this sound too good to be true? You have probably never ridden on a bus that stops right in front of your house, has the bus driver help you onto the bus and then drives you to your destination without making you walk two or three blocks after getting off the bus. But such a transportation service has been operating in Tompkins County for the past eight years, and the passengers on these buses are likely to find that more than one of these friendly, helpful drivers is a former Cornell professor or administrator.

This "dream" bus service is called Gadabout, and it is a voluntary transportation program designed for use by the elderly and handicapped residents of Tompkins County. In 1976 a group of concerned citizens and people from various county agencies got together to develop a transit service which could fulfill the special needs of senior citizens and disabled persons residing in nearby towns. The problem of not being able to get to the market every week or to the doctor's office for a checkup prompted representatives from Ithacare, Developmental Disabilities, The Senior Citizens Council and other interested groups to raise funds to buy a van and a minibus.

The first vehicle was purchased in 1976, and it holds 14 riders. A second bus was acquired in 1977, specially equipped with a lift for wheelchair travelers. Gadabout now has seven buses altogether, with five of them stationed at the Ithaca office on 710 West Court Street and two at the Groton/Dryden base. All of the buses have radios to communicate with the downtown Ithaca office. While most of the buses were purchased through grants under the Federal Urban Mass Transit Act, money is still needed to provide operating assistance. This funding comes primarily from rider donations, groups and agencies that use the vehicles, and annual fund-raising events. In 1983 the Cornell fraternity
Phi Kappa Psi raised $10,380 for Gadabout from the Phi Psi 500. The major source of funding though, comes from local municipalities—cities, counties and villages.

The volunteer drivers are the major source of support that keeps Gadabout Services running smoothly throughout the year. There are currently 48 drivers, with only one fulltime, paid driver. Ten percent of the volunteers consist of people associated with Cornell University, either as professors or administrators. John M. Anderson, Professor Emeritus in the Section of Genetics and Development, Esther Dotson, Associate Professor of Art History, Dr. Reeshon Feuer, PhD '56, Professor Emeritus of Agronomy, Chester Freeman BS '39, Professor Emeritus in the Department of Communication Arts, Kenneth Greisen PhD '43, Professor Emeritus of Physics, Milton Hislop, retired associate professor in the College of Agriculture and Life Sciences, Charles Ostrander BS '41, Professor Emeritus in the Department of Poultry and Avian Sciences, Leonard Nissenson, Administrator of Health Services at Gannett Health Center, Martin Sampson MS '45, Professor Emeritus in the School of Operations Research and Industrial Engineering, Dr. Herbert Schryver DVM '54, Professor of Veterinary Medicine, John Swan BS '43, Professor Emeritus/Administrator with Cornell Cooperative Extension, Hugh Travis, a retired professor in the Department of Animal Sciences and Lowell Uhler, Professor Emeritus, Division of Biological Sciences, are all experienced Gadabout drivers.

Each volunteer driver has a half day schedule and most of them donate their services one day a week. The volunteers come from a variety of backgrounds and are extremely friendly, helpful and enthusiastic. Chester Freeman '39, has been a volunteer driver for almost five years. “After I officially retired I had some free time available so a friend of mine, who was already a Gadabout driver, gave my name to Judy Willis, the Executive Director of Gadabout Ser-

services,” Freeman explained. Willis immediately recruited Freeman and he has been driving for Gadabout ever since. He now has the “country run” every Thursday afternoon. This route begins in downtown Ithaca, goes out to Trumansburg and then comes back through Brooktondale and Slaterville. Most of the stops are made at grocery stores, beauty parlors, and doctors’ offices. “I know where every beauty parlor in Ithaca is located,” Freeman laughed.

Before becoming a certified Gadabout driver, each potential candidate must complete a three-part training session. This consists of a classroom defensive driving session, an eye and reflex-coordination test and a behind-the-wheel road test with a school bus driver/trainer, usually Norm Wheeler, who also volunteers his services. Once these tests are completed, the new Gadabout drivers are ready to get on the road.

When people want to use the bus service they call up 24 hours in advance and schedule their errands and appointments with one of the staff members. The buses operate on a weekly schedule and travel to most areas in Tompkins County—Trumansburg, Caroline, Newfield, Enfield, Dryden, Groton, Danby, Freeville, and Etna. While there is no required charge for riding the buses, riders are encouraged to make contributions to the bus service. Each person boarding the bus takes an envelope with donation suggestions printed on the back.

“What amazes me most about the system is that it works,” Freeman said. There are hardly ever any major mix-ups that arise, the passengers are considerate and the staff is extremely dedicated and hard working.

The volunteer drivers find Gadabout to be a very rewarding experience. The only problem that exists is that there are not enough drivers at the present time. If you are interested in becoming a volunteer driver or know someone who is, call Judy Willis, the Executive Director, at 273-1878.

Another satisfying day of driving grateful passengers to places throughout Tompkins County has come to an end. Professor Freeman drives past a beauty parlor, chuckles to himself and then pulls into the Gadabout parking lot, eagerly looking forward to the following week’s “country run.”
"I communicate with about 18 million people every night. That's not a bad line of work," says Steve Jacobs '73, one of the senior producers for the "CBS Evening News" with Dan Rather.

Jacobs is one of a group of five or six people who are responsible for the editorial content of the broadcast, seen by almost 18 million people each night. He deals mainly with "the graphics that are internal to pieces, the graphics that go behind Dan Rather's shoulder—the way the show looks on the air," Jacobs says. His job includes close consultation with the two directors of the broadcast and with the graphic artists for CBS News.

While Jacobs has been with the "Evening News" for just over a year, he began his broadcasting career more than a decade ago. Although he entered Cornell as an engineering student, he soon became interested in broadcasting. "Instead of spending enough time in class," he says, "I spent too much time at WVBR."

With the guidance of Prof. Charles C. Russell, then chairman of the Department of Communication Arts, he realized that his interest in broadcasting would be served better as a communication arts major. "I had an opportunity to use the Cornell experience to provide myself with an intellectual foundation for the work in broadcasting I wanted to do," he says emphasizing "intellectual foundation."

"I'm one of those people who thinks that if you want to do radio or television, the most practical place to get the experience is at a radio or tv station. It is not the function of a college or university to teach people hands-on how to edit tape or how to do a match-dissolve."

"The proper function of a university," Jacobs continues, "is to teach you how to think or give you some of the experiences that teach you different ways of analyzing problems—to sharpen the analytical process and teach you cognitive skills as opposed to just practical hands-on things. People learn to shoot cameras by shooting cameras."

Jacobs said he is able to capitalize on all his courses at Cornell, from engineering to western civilization and biology. "Cornell was most useful because it enabled me to become a generalist." This broad background, he says, enables him "to attack a story in ways that people who have had a narrower education can't hope to compare with."

After graduating from Cornell, Jacobs spent time in radio, beginning in Montgomery, Alabama. Next, he moved to Washington, D.C., where he worked as a reporter-anchor for an all-news radio station then owned by The Washington Post. He then moved into television as a writer for a
90-minute news broadcast at a CBS affiliate in Washington, D.C., where he worked for two-and-a-half years.

Jacobs worked next as executive producer at another Post-Newsweek television station in Hartford, Connecticut, and then as senior producer for a third Post-Newsweek station in Detroit. He then moved to ABC-TV where he worked for about four years, primarily as their Pentagon producer, but he also “did a tour of duty in the White House,” during a rotation working with Sam Donaldson.

With all of this television experience, it is hard to believe that Jacobs once looked down on television journalism. “When I graduated from Cornell I was positive I was going to maintain a career in radio,” he says. “I had to be dragged screaming and kicking into television, which I viewed at the time as a place for showmen, not for journalists.”

Jacobs said by a few years after graduation he had enough experience with television to realize, “By golly, you could be a journalist and work in television—that they were not mutually incompatible.” He has been marrying journalism with television ever since.

Television news places a premium on economic writing and clarity of style because of its time constraint, Jacobs says. “You have to know exactly what you want to say and how to say it best.” His advice for people who want to get a job in television news? “Go read Strunk and White’s Elements of Style and memorize rule 13—omit needless words.”

Jacobs says crisp graphics on the news are important since “people don’t watch television sitting down devoting 110 percent of their attention to it.” Because of these viewing habits, he explained, the graphics must be as clean and coherent as possible to ensure that even those who see just a part of a news story can understand it. “The demand for excellence and clarity of thought in all facets of the broadcast has increased markedly.”

Looking back to when he was a student at Cornell, Jacobs says, “It was a very serious generation of kids . . . . There seemed to be a great deal of value placed on doing something socially meaningful.”

“When you are 21 and 22 you’re convinced that you know what the world really needs,” Jacobs continues. “That is a good thing to be at 21 because it allows you, by the time you reach 30 or 40, to realize that not everything you knew then remains an essential truth.”

“One of the things you find out is that it is possible to have everything, but only for about five minutes. Then you run out of time and begin to make choices as to where your priorities are,” he says.

Jacobs’ wife, Maxine Howard, is also a ’73 Cornell graduate. A major in both human development and family studies and communication arts, Maxine worked as a television reporter for about four years after graduation. She went to law school and now practices law in New York. Maxine and Steve were married in 1979 and have two children.

Although Jacobs is not certain exactly what he will be doing in the future, it seems he will remain in broadcasting. He says he may move more into broadcast management, perhaps as a bureau manager, or he may become more involved with the operational side of CBS News.

In either case, Steve Jacobs is very satisfied with his current position. “Right now,” he says “I think I have one of the best jobs on Earth.” That is not a bad position to be in.
"HARDY, JANE ELIZABETH, educator; born Fenelon Falls, Ontario, Canada, March 27, 1930; came to U.S., 1956, naturalized, 1976; daughter Charles Edward and Augusta (Lang) Little, B.S. with distinction, Cornell University, 1953."

So begins Jane E. Hardy's current listing in Who's Who of American Women. Hardy, Senior Lecturer in the Department of Communication Arts in Cornell's College of Agriculture and Life Sciences, came to serve on Cornell's faculty by a most indirect route, that is, via Toronto, Canada and Oxford, England.

After graduation from the Department of Floriculture and Ornamental Horticulture in the College of Agriculture, she began her career by accepting the position of gardening editor for Canadian Homes, a Toronto-based magazine with a circulation of 250,000. After a few years in Toronto, Hardy accompanied her husband, Ernest Hardy, BS '53, MS '59, PhD '69, to Oxford for a year where she continued to write for Canadian Homes as a freelance columnist. In 1956, she rejoined the staff of Canadian Homes and continued as gardening editor for the publication.

In 1968, Hardy joined the Cornell faculty. When she first joined the communication arts department, she taught advertising and mass media.

"Gradually, I began to develop my own courses. The main course I developed was Technical and Scientific Writing. That has since spun off into four courses," Hardy said.

In the spring of 1983, Jane Hardy introduced a broad-based editing course to the communication arts curriculum, the first of its kind at Cornell. According to Hardy, there is a dearth of written teaching material on editing techniques and yet there is a great deal to be learned. "What is happening and will continue to happen in the editing field, is the increased use of computers for editing," Hardy noted.

Hardy's magazine background makes her especially well-suited to oversee the production of the Cornell Countryman, a job she has enjoyed since 1975. She feels that this course gives the students a chance to synthesize much of what they have learned in communications. "I think it's a valuable experience to be able to test out what you have learned and see if it's going to work in the real world," Hardy commented.

In speaking with Jane Hardy, it is evident that she enjoys her career as an educator. She finds that teaching and writing are similar in that both are ways to give others information. In comparing her two professions, she said, "In teaching I am dealing on a one-to-one level but when I write for a magazine I am not always sure who is out there reading. The kind of feedback you get from college teaching makes it a much more rewarding job."

In addition to teaching classes and supervising the production of the Cornell Countryman, Hardy is the faculty advisor of the Cornell Chapter of Women in Communications, Inc.
a position she has occupied since 1976. This national organization supports the efforts of professionals and students in the communications field.

According to Hardy, a current problem facing faculty advisors in the organization is that there is currently no forum through which faculty members can present research papers. This is especially important to younger faculty who need such exposure to prove that they have had an impact on their profession which, in turn, will earn them tenured positions.

"If a junior woman faculty member is charged with supervising students in her chapter, she may go to meetings but is given no opportunity to present a research paper," Hardy said. This "call for papers" is a common opportunity in most other professional organizations. Such a practice benefits both the professionals, who learn of new research in the communications field, and the faculty, who gain the experience of preparing and presenting a paper. Hardy is presently on a national committee which will address this and similar questions of interest to faculty advisors.

Cornell's chapter of Women in Communications coordinates programs that are interesting to all students on campus, including non-members. "Right now we are giving some thought to putting on an all-day program on dual career couples because so many young women intend to follow a career which may not be in the same place as their husbands' careers," Hardy explained.

At Hancock Shaker Village, Hardy learns how to produce red basil wine vinegar.

Communications

by Fredda L. Plessner '85

Due to the changes in women's and men's roles, an organization like Women in Communications would probably not have existed when Hardy attended the University. At this time there were very few women in the ag college. However, she feels that this can be an advantage because if a woman can succeed in such an environment, she will know how to work with men. "But it was also somewhat difficult because the faculty made the assumption that if you were a woman in the field, it wasn't worth wasting time or money on you students were constantly challenging the faculty. According to Hardy, "It was very inhibiting from an academic standpoint."

Hardy's affinity for Cornell has apparently "rubbed off" on her children since both boys, Edward '79 and Robert '85, chose to attend. Through her many years at Cornell, both as a student and as a teacher, Jane Hardy has had the exciting opportunity to observe and contribute to this place we call Cornell.
GENETICS
after Cornell

by Leda M. Liounis '85

For Mark Chamberlain '84, genetic research has been his chosen field. He is currently working for E. I. DuPont De Nemours & Co., Inc. at the experimental station in Wilmington, Delaware. Genetic research is one of the many branches in the life sciences section of DuPont's Central Research Department.

In discussing his educational background acquired at Cornell University, Chamberlain explained, "In my junior year I decided I wanted to do research. With that in mind, I decided to concentrate all my efforts on taking only genetics or genetics related courses, even though my concentration required only nine credits in that area."

After completing the general science courses such as chemistry, biology and physics, Chamberlain completed several highly specialized genetics courses in areas such as immunogenetics, immunology, and cytology. He also completed Biosynthesis of Macromolecules, an advanced course on the graduate level. He strongly believes that, "If you are going to do research in a specific area, you have to have a strong, specialized educational background in that field."

Research experience is as important as a strong academic background. Chamberlain gained his research experience in the field of genetics while he was still at Cornell University in the College of Agriculture and Life Sciences. He applied with the head of the genetics division, Peter Bruns, in the fall of '82 and began working the following January.

"It's hard to get lab-work experience because everyone is looking for research work," said Chamberlain. Bruns accepted Chamberlain to do research for him from January until December, 1983. During that year, Chamberlain researched the protozoan Tetrahymena thermophila. He worked on the "heat shock response" elicited by this particular unicellular organism. Chamberlain worked alone on the research and conferred with Bruns on a regular basis. Chamberlain commented in retrospect, "The research gave me a lot of background experience in basic genetic manipulation. I doubt that I would have been hired at DuPont without this experience along with my specialized education."

Chamberlain graduated from the College of Agriculture and Life Sciences in December 1983, with a Bachelor of Science in biology with a strong concentration in genetics. The following spring he applied for a position at DuPont. His record was put on file and he was contacted shortly thereafter when DuPont was looking for a scientist for their Fermentation Microbiology Group. By May 1984, Chamberlain was doing extensive research for an interferon project involving plasmid instability experiments. Interferon, a protein produced by the human body, was considered to be a miracle cure for cancer and a viral inhibitor in cells.

Shortly after his initiation into DuPont, Chamberlain was assigned his own office, lab and lab technician. These responsibilities have motivated Chamberlain in his work as well as raised his image within the company.

After a recent promotion into the Biotechnology Department, Chamberlain is currently doing research on Interleuken II (IL-II), another protein produced by the human body. This protein, it is believed, causes the growth of certain cells of the immune system. Chamberlain's research involves the cloning of genes which are responsible for the production of cellular receptors which bind to IL-II. Chamberlain is also responsible for
publishing reports on his research.

Considering that the majority of Chamberlain's colleagues at DuPont have PhDs, he feels very fortunate to have acquired his position at the experimental station and earned a promotion in less than a year. But Chamberlain has not yet met his goals.

Chamberlain would like to get a Master's degree in genetics. After that, he would like to go on to medical school. With his research experience from working at DuPont as well as his Master's degree Chamberlain hopes to do medical research, possibly in the study of the brain and central nervous system.

While in a very short time Chamberlain has become successful, settled in a beautiful apartment and driving a new car, he finds the "real world" a little lonely. He often comes up to Cornell from Delaware to visit his friends on weekends. In describing how he misses the college atmosphere, Chamberlain says, "I don't actually miss the academic grind, but I do miss the people and the opportunities here. Cornell gets you highly motivated and keeps you busy 24 hours a day; I often look for things to do to keep myself busy after the work day."

Mark Chamberlain, '85, reminisces about life on Cornell's North Campus.
Where Student Is King

George J. Conneman's Office of Instruction

by
Mary Chanatry '85

A poster adorning his office wall reads, "In our business, the customer is king," but under the word customer, 'student' is pencilled in, turning the poster into the perfect banner for George J. Conneman, BS '52, MS '56, Director of Instruction in the College of Agriculture and Life Sciences. Conneman received his PhD from Penn State University. "In our want to improve the undergraduate education by meeting all the students' needs as well as those of the faculty. If we could, we'd operate under the well-known slogan, 'We do it all for you.'"

When Conneman became the Director of Instruction in August of 1981, he made only one request of Dean David L. Call, BS '54, MS '58, between the administration and "everyone else" in a college setting. More importantly, however, it keeps him in tune with the concerns of students and faculty alike, thus proving to be an important asset in his administrative role by showing him where to direct his energies in improving undergraduate instruction and life.

"I have always loved teaching; I would never be an administrator without the opportunity to teach. I believe it's an important job in which you can make a tremendous impact on young people — on what they learn and how they feel about issues."

But Conneman is an advocate for the faculty too, also attending to their concerns and suggestions. "We have to listen to both if we are to plan an outstanding undergraduate program," he said.

The two roles in his life, as a member of academia and of the administration, do not dichotomize for Conneman, but instead, merge to produce a job well done.

The Office of Instruction deals with many programs and often in areas where improvements go unnoticed. They work on admissions and scheduling, career development and curriculum review, advising and counseling — all done with the student in mind. It's not receiving credit where it's due that is important to Conneman, however, it is the issues. And so, carrying a set of issues that confront the College firmly in hand, he and

Conneman chats with fellow alumnus Karl Butler at the Bailey Day Alumni Roundup last fall.

business," it now reads, "the student is king."

"If that's not what we're all about, then we are doing the wrong thing," Conneman commented in regard to the role his office plays in the everyday workings of the College. "We PhD '60. He wanted to retain his teaching position in the Department of Agricultural Economics. A professor of farm business management and finance, he is now both administrator and faculty member, a position that bridges the gap often perceived
Helen Wardeberg, Assistant Director of Instruction, have established several goals for the office. Together he and his staff work on generating funds such as the $1 million the College put together for computer facilities last year. They work with the College’s Alumni Association and Development Office to identify scholarship dollars for deserving students, a task approached enthusiastically in recognition of the increasing difficulty in providing a top-notch education without having a wealth of monetary resources.

In addition, Conneman emphasizes the importance of providing funds for “innovative teaching grants” among the faculty. These grants allow faculty to pursue unusual teaching projects such as the videotape Robert H. Foote, MS ‘47, PhD ‘50, Department of Animal Science, prepared of an embryo transfer.

“My role within the Office is that of the quarterback and the cheerleader,” Conneman noted. “I initiate changes as well as try to influence in a positive way the changes such as the final schedules that are out of my control, but I also have to stand back and encourage everyone else.”

But perhaps most important to the students is a task Conneman was partially responsible for, in an indirect way — the revision of this year’s final exam schedule.

“We often can only suggest changes,” said Conneman, “We are not at liberty to alter the finals schedule; Professor Buglari [Dean of Faculty, LLB ‘59] is, and I think he moved the start of finals back a few days to include a weekend partly at our suggestion.”

Previously, the fall semester final exams were held on seven consecutive days; this year, a weekend separates exams into two and five day segments, respectively.

Conneman’s unique approach as both teacher and administrator has led to several very visible changes that benefit the students and the teachers in the College. Foremost among these are the classroom renovations for comfort in learning and teaching as well as the provision of faculty members with more resources, whether it is funds for additional paper grader or computer equipment. The renovation of Warren Hall, Room 145, exemplifies this work. Part of a five-year plan to assess what needs to be done in the College concerning classroom and laboratory renovation and ways to implement the required plans, the room underwent a facelift during the summer of 1984.

“I asked myself what I would want the room to be like as a teacher and then we surveyed the faculty,” Conneman explained. New blackboards, teaching tables, a lecture stand and a larger video screen were added. Improved video and closed circuit television equipment used for transmitting lectures from classes where enrollment exceeds the number of seats were also installed.

And then the student needs were evaluated. Soft, comfortable chairs with larger writing desks replaced the old wooden ones and wall-to-wall carpeting was added as a finishing touch.

In addition to his faculty role, Conneman holds yet another unusual position as an administrator. Being Treasurer of the College’s Alumni Association, he is well aware of alumni wishes in addition to those of teachers and students alike. The two jobs work well together, according to Conneman, giving him an excellent opportunity to work with the Association, especially in generating needed scholarship dollars for the College.

Acting as teacher, administrator and alumni treasurer, Conneman requests two things of the College’s recent graduates. Foremost is to perform well in whatever they choose and thereby reflect well upon their undergraduate institution. Secondly, he asks them to send new students to the College, for it is the students with whom he is most concerned.

“I tell them to donate to the College only after they make their first million,” he chuckled. “We’re interested in developing a fine, broad image of the College and you do that with students.”

From an undergraduate in the early fifties and a faculty member since 1956, to Director of Instruction since 1981, George J. Conneman is certainly no stranger to students. “They are who I think about first thing in the morning; I wouldn’t want it any other way.”

George Conneman addresses the crowd at Bailey Day Alumni Roundup.
Has "Founder's Day" been lost? It used to be a major Cornell University holiday commemorating the birthday of the man who started the University, Ezra Cornell. The celebrations have included keynote addresses, banquets, plays and dances. Today it is a rarely observed University-wide holiday and seems to have disappeared like the era in which it started.

The first Founder's Day was held January 11, 1869, just a few months after the University's doors were opened to its first students. Professors and students ignored a blizzard to join in celebrating Cornell's 62nd birthday at Cascadilla Hall. The reception was followed by a turkey dinner, similar to the traditional Thanksgiving Day dinner. In a way, it was a day of Thanksgiving for all of them; the end of the first academic term at Cornell University had just been completed. After dinner, the festivities continued with music and dances.

Dancing at Founder's Day celebrations is traditional. When Andrew Dickson White, who was the first president of the University, delivered the Founder's Day address in 1890, he added some insight to the tradition. A few days after that first celebration, a formal protest was signed by many Ithaca clergymen. It stated they would not have attended the function had they known there would be dancing, which they believed was "inconsistent with Christian obligations." The clergymen hoped that the new university would be "on the side of pure and undefiled religion."

This was the first test for the University's position on religion and its influence on Cornell policies. At that time, higher education in the United States was completely dominated by religious organizations. Nearly all college presidents, trustees and many professors were clergymen who tried to protect the students from new ideas that might be critical of traditional religious principles.

Cornell and White, however, were determined that their University would be entirely free of religious prejudices, taboos and dogmas. They refused to allow theology to rule the College's policies. The rebels were labeled "apostles of atheism" and the University was considered "godless."

So what did Cornell do about the clergy's protest over the dancing? The biography, The Builder: Ezra Cornell states, "To show what he thought of the furor over the dancing at the first Founder's Day celebration — when the music was provided by a single pianist — Cornell engaged a band for the 1870 birthday party." White recalled that at every Founder's Day, as long as Cornell lived, he had arrangements made for dancing.

Another revolutionary milestone initiated by this unique, new University was the enrollment of female students. At the College's opening ceremony, Cornell's speech included a plea for women to have the same educational privileges as men.

What usually happens at Founder's Day celebrations? The proceedings have not changed much since the first one in 1869 and the last one held in 1957 to celebrate Cornell's 150th birthday. Students, faculty, members of the board of trustees and the University president form a procession to attend orations.

Many ceremonies were held in the Armory (close to where Carpenter Hall

Cornell's first buildings (left to right) are Morrill, McGraw, White, Sibley and the old chemistry building.
now stands). Speakers have included Judge W. F. Frear of the Supreme
Court of Hawaii; James Morgan Hart, Professor Emeritus in English, who
at that time, was one of the few living members of the original faculty;
White and other University presidents.

Following the speeches and ceremonies are receptions and, of course,
dances. At the 1957 celebration, the
Cornell Dramatic Club presented the
play, "Once Upon a Hill," which
depicted the early history of Cornell.

Some of the speeches delivered
on Founder's Day have been on timely
topics, while others have related the
history of Cornell University and its
founder, Ezra Cornell. The latter pro-
vide insights on the true characters
of both Cornell and White.

Although Cornell and White had
similar philosophies regarding educa-
tion, their backgrounds were quite
different. Cornell, a self-made man
with little formal education, believed
a college education should be both
practical and available, which is
shown by his words on the Cornell
Seal: "I would found an institution
where any person can find instruction
in any study."  He used the fortunes
he made in the telegraph and rail-
road businesses to help found his
University.

White, however, was born into a
rich family and had the best educa-
tion available in those days. He dis-
liked the narrowness and snobbishness
of the classical curriculum offered
then, which was devoted to Greek,
Latin and mathematics.

Besides being the University's first
president, White played an important
role in Cornell's early history. When
he and Cornell first met, White was a
New York State senator and chairman
of the Senate Committee on Education.
White presented a bill to the Senate
to establish Cornell University with
funds from the Morrill Act of 1862,
which was created to encourage agri-
culture and mechanical education by
granting public land to states. The
states could either build a college on
the land or sell it and use the funds
to promote agriculture and mechanics.

After three years and much con-
flict over where the money should
go, the bill was passed in favor of
building a new university in Ithaca.
But only after Cornell offered to
donate 300 acres of his Ithaca farm
land, buildings and money for a
total of $500,000 towards the new
college.

As Prof. Edward L. Nichols of
the Department of Physics reminded
the audience during his Founder's Day
address in 1908, "Today we can
enjoy the fruits of his labors and on
the farm on which he actually ploughed, and sowed and harvested,
we are now reaping educational bene-
fits which the men of his day never
imagined were possible."

A view in the era when Founder's Day was celebrated annually.
A BLOCK of Tradition

by
Bonnie Rueben '85
Bursar Appointed

Following the retirement of nine-year veteran M. Jean Merwin, Richard Banks, '74, has been named university bursar. A former employee of Household Finance Corporation, Banks joined the Office of the Bursar in 1978 as a collection officer.

In addition to the announcement, University Controller, John Ostrom, congratulated Merwin for her outstanding direction and devoted service.

Husband and Wife Authors

A Cornell University husband and wife team have co-authored a text on food protein chemistry. The first of its kind, Food Protein Chemistry: An Introduction for Food Scientists, is designed for food scientists in the area of food proteins with topics related to chemistry and mathematics.

Joe Regenstein, '65, MS '66, is an assistant professor of Food Science in the College of Agriculture and Life Sciences. Wife Carrie is a production controller for Cornell's Computer Services.

Faculty Achievements

Several outstanding members of the Cornell faculty were honored this past year. Cornell agricultural engineers have been awarded top national honors for educational aids in the field. Department faculty, staff and graduate students were recognized by the American Society of Agricultural Engineers (ASAE) for seven entries.

Light traps allowing ventilation fans to operate more efficiently in poultry houses received recognition. The fixtures are expected to save the broiler breeder industry $21 million a year because of improved feed efficiency and increased egg production.

Another department winner was a slide presentation entitled "Biogas—A New Energy Source."

Kraig Adler, professor of biology, will participate as one of 16 scholars in the Distinguished Scholar Exchange Program with the People's Republic of China. During 1985, he will spend more than one month lecturing at universities and institutes throughout China, along with conducting field research in Sichuan Province.

Adler is recognized internationally for his animal orientation and navigation research.

Soil scientist and author, Gerald Olson, has received a "Certificate of Appreciation" from the New York Association of Coastal Extension Professionals (NYACEP) for his outstanding contributions to coastal erosion control in New York state.

According to NYACEP President, Charles O'Neill, Jr., Olson's participation in the planning and teaching of Sea Grant activities has enhanced the Sea Grant Extension efforts. "We indeed have found a friend on the Cornell campus who sees the importance of a holistic approach to coastal control," said O'Neill.

Alumni Honored

Two Cornell alumni were honored by the University at Cornell Dairy Days this past month. J. Murray Elliot, chairman of the department of animal science, presented awards of merit to state educator Walter Clark, '50, MS '60, and Richard Keene, '57, milk producer and renowned international and national dairy cattle judge.

Clark has made major contributions in the development and use of trait appraisals, which are used to gain additional information on the offspring of sires under test. He is also dean of the agricultural division in the State University of New York Agricultural and Technical College at Cobleskill.

Richard Keene, an Otsego County resident, owns and operates a 375-acre dairy farm. Keene is considered by his colleagues to be an expert on the pure bred industry. He has also played a major role in developing the Cornell dairy cattle judging teams.

Kennedy Serves as Acting Dean

Provost Emeritus, Keith Kennedy, MS '41, PhD '47, has been named to a new university post. Kennedy will serve as acting dean of Admissions and Financial Aid. Current Dean James Scannell has taken a new position at the University of Rochester as Vice President for Enrollments, Placement, and Alumni Relations.

Rickard Takes New Post

Charles Rickard, DVM '43, MS '46, has been appointed acting dean of the New York State College of Veterinary Medicine. Former Dean Edward Melby, Jr., will join Smith-Kline Beckman Corporation as vice-president of research and development.

Appointed associate dean in 1969, Rickard is also a professor of aquatic medicine and associate director of Aquavet—a program in aquatic veterinary medicine conducted each summer at the Marine Biological Laboratory in Woods Hole, Massachusetts.

Noted for his many accomplishments and contributions to the nation's potato industry, Cornell scientist Robert Plaisted, '50, has been elected an honorary life time member of the Potato Association of America (PAA).

Plaisted, who specializes in potato breeding, was one of four scientists honored this year at the PAA's 68th annual meeting.
Graduating seniors at Cornell University now have a new link to entry level job openings in companies that do not recruit on campus. Thanks to a new program called the Cornell Connection, students now have access to jobs in smaller firms that do not recruit. In addition, they can now compete for different kinds of jobs in large corporations that only recruit for certain jobs such as engineers or computer specialists but have openings in other areas such as marketing or personnel.

Many students now use Cornell's Career Center and placement offices to seek jobs by participating in the on-campus recruiting programs. But, according to Tina Walker, who is Projects Coordinator and Coordinator of the Cornell Connection, "Many students get jobs through some contact such as a friend or relative, and these present a variety of career fields, so that we can develop contacts in a number of different areas," Walker explained.

Once jobs are referred to the program, they are put into the Cornell computer system CUINFO. Students can look at lists of jobs by field or terminal throughout campus or on printouts in the placement offices. To apply for jobs that interest them, students must submit a resume and cover letter to the Career Center. The Cornell Connection then sends groups of applications to employers, and the employers contact any students they are interested in for interviews.

"Students using the Cornell Connection are still competing with the rest of the world for these jobs, but they have more job opportunities available to them through the program," said Walker. As of October 31, 1984, 643 job openings had been listed through the Cornell Connection. Based on responses she received from a student user survey, Walker has determined that most students get at least one interview, and some get as many as 10. She said more time is needed before all the benefits of the program can be analyzed.

Some students that have been hired through the program include a May, 1984 graduate who now works for Young and Rubicam, Inc., an advertising agency, and two May, 1984 graduates who are working at the Queen Louise Home for Children in the Virgin Islands.

Plans have been made to continue developing and expanding the program. The target areas are now Boston, Washington, New York City and upstate New York, because these are the most popular areas for students. More target areas may be added, and people are working on new ways to increase the current target penetration, according to Walker.

"This particular program is unique among schools," Walker said. "The two key factors behind its success are the alumni network and the use of CUINFO. Alumni, employers and students have all shown great interest and enthusiasm for the program. Alumni seem to enjoy helping other Cornellians, and employers welcome the program as a source for talented new employees."

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by Kerry Bitner '85
ABOUT THE ISSUE
In this issue, we focus on many kinds of growth on campus from efforts to combat Dutch elm disease in trees on the ag quadrangle to increasing opportunities for Agriculture & Life Sciences students to learn about computers. We look at protection of Alumni Fields from the growing demand of the University for new buildings in its place, prospering field study programs and the escalating number of women in the Department of Communication Arts.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor; Edward L. Bernays '12. Faculty advisors: Jill Grossvogel, Jane E. Hardy.
Making Courses User Friendly

In a few semesters, it may be required that students make a new friend—the computer. To make things easier, the computers have become 'user friendly.' They talk to you to help you with whatever you are doing; for students this will most likely be written coursework. In fact, a few instructors in the College of Agriculture and Life Sciences have already started to steer their courses in that direction. Instead of traditional computer courses, these are classes in education (Introduction to Psychology), financial management and farm business management. Within the past year these courses have integrated the use of personal computers, such as the IBM PCXT, into their curriculum.

The microcomputers in Introduction to Psychology are being used as part of what Dalva Hedlund, an associate professor in the Department of Education, terms “a course management system.” This system was developed through the use of a microcomputer, but the students access the program via the mainframe computers. According to Hedlund, there were two factors that were instrumental in deciding to start this program. “First of all, I saw this as an opportunity to improve communications with the students. With the electronic mail system, the students can send messages to the staff whenever they want, instead of waiting until office hours. Secondly, Cornell Computer Services provides a good support for developing course management accounts.” Microcomputers are also used by students for running experiments.

In both Financial Management and Farm Business Management, the microcomputers are being used to supplement the course material and act as a ‘simulator.’ According to Robert Milligan, an associate professor in the Department of Agricultural Economics, “Once you have the mechanical understanding (of the concept) then you can go to the computer for the ‘what if’.” The ‘what if’ allows you to run a simulation; you can experiment with a number of variable changes without having to perform a difficult series of calculations. But, as Bruce Anderson, another associate professor in the department pointed out, “The real appreciation of finance comes from the number chugging,” which is why in this financial management course the students do not begin doing the simulations until one month into the course.

The program that these students perform their problem sets on, and the program that is used in the other two classes as well, is one of the most popular software packages on the market—Lotus 1-2-3. Its capabilities range from budgeting to word processing. In a pilot project that was run for Financial Management, Anderson said that it took the average student six to nine hours to learn Lotus 1-2-3. This was important, since none of the professors in the aforementioned courses actually wanted to teach students to use computers, only reap the benefits of their use. The students were given introductory lessons by Cornell Computer Services located in Warren Hall and Riley-Robb Hall. According to Hedlund, “The material offered at computer services is as good as, if not better than the introduction we (The Introduction to Psychology staff) offer.”

According to all of the professors interviewed, there has been a very positive student reaction towards the computer. Anderson said that acceptance has been almost unanimous, and they have received few problems as far as ‘computerphobia’ is concerned.

The respective departments have also been quite receptive to the computers. According to Milligan, “We’ve always felt that the computer would be useful as part of the curriculum.” It was not until this year that the facilities were available; this was made possible because of a grant made by IBM—this new computer development has been entitled ‘Project Ezra.’ All of the computer equipment donated by IBM is to be used by all departments at Cornell University in conjunction with specified courses.

Some people feel that the integration of computers into the curriculum has been too slow, but as Anderson pointed out, “By being ‘slow,’ we have probably avoided some of the costly mistakes other universities have made. I feel that Cornell has moved at the proper pace.”

All three professors did stress that they do not foresee the computer ‘taking the place’ of an instructor in the future, but rather, using the computer to aid and enrich the course material. Incidentally, this article was written on a ‘user friendly’ microcomputer.
"Cornell; ah, I can tell you stories about my days at Cornell . . . like the old house where I lived in Collegetown, those icy winters, and the time I got so sick from drinking all that cream at the ice cream factory, and . . ."

Stop right there! It seems Cornell's own ice cream, in some way or another, remains part of most Cornellians' memories, including those of my grandfather, Dr. Morris Siegel DVM '37. The ice cream, first produced in 1885, has become a Cornell tradition. Even today, students frequently assemble for "ice cream sprees." In flavors from pumpkin to pistachio, the Department of Food Science's ice cream is still an integral part of the Cornell experience.

Now, thanks to Dr. Frank Kosikowski MS '42, PhD '44 and his graduate student A.R. "Skip" Masters, there is a new dimension to Cornell's ice cream.

They have developed a nutritious, delicious ice cream low in lactose.

For decades, food scientists have been trying to prevent "sandy" ice cream, ice cream with grittiness resulting from an excess of lactose (milk sugar) crystallizing out of the mixture. Since the 1920s, ice cream manufacturers have been able to solve this problem through use of added enzyme to split lactose into glucose and galactose, two sugars which are more soluble in water. This method never became widely used since adding enzyme raises the cost of the ice cream.

Besides the unfavorable texture of ice cream high in lactose, many people suffer from malabsorption of lactose or lactose sensitivity. These people experience abdominal discomfort and intestinal upset after consuming lactose. They often avoid milk products and in doing so, are denied a rich source of calcium and the pleasure of eating dairy foods.

The Cornell natural, low-lactose ice-cream contains the same amount of protein and calcium found in commercial ice cream except it has less sodium and fewer calories. It is made by using a method known as ultra filtration, scientifically called molecular membrane separation.

Kosikowski explains, "Membrane separation was probably first applied in the 1700s during French experiments with an alcoholic beverage, most likely brandy, against an animal membrane. The 1960s brought new ideas and activity in the field. In fact, ultra filtration revolutionized the cheese industry in France by 1979. All we had to do was apply the existing technology to ice cream making."

"In its application to milk, this process selectively removes 75 percent of lactose by pumping milk through polysulfuron tubes containing many tiny pores." The pores of the membranes are permeable to water and solutes of certain small molecular weights including sodium, potassium and lactose. With water, these flow through the membrane as permeate while larger milk components with water remain as retentate or concentrate. The retentate from milk, skim milk and cream are then used to make ice cream.

The process of ultra filtration usually takes place at a temperature of 54 degrees Centigrade. This temperature is high enough to inhibit bacterial growth and allow the filtration to occur at a fast rate, yet low enough not to interfere with taste or nutrition.

In fact, a panel of tasters could

*Chocolate ice cream being processed by a technician.*
not distinguish the low-lactose ice cream from Cornell's commercial brand, which has been produced in Stocking Hall since 1924. They found the same high quality and degree of excellence. Because there is plenty of water in which the remaining 25 percent of lactose dissolves, the low-lactose ice cream never becomes sandy. Kosikowski states, "Amounts of sucrose or corn syrup, normal ingredients in ice cream, may be slightly increased to compensate for the loss of milk sugar, which has some sweetness."

So far, the low-lactose ice cream has only been made in one flavor, vanilla. Masters, an expert in food technology, is testing combinations of ingredients and systematically studying which ones improve the product most. Using a computer, he maneuvers such variables as amount of cream compared to milk, fat content, stabilizers and flavoring.

Ice cream companies have requested information about the low-lactose ice cream. However, Kosikowski says, "There is still work to be done." No market research has been performed yet, so he does not know how economical the ice cream is.

What he does know is that his low-lactose ice cream tastes just as great as Cornell's famous ice cream, and that means it is a success. Aside from just new flavors to compete with popular ones like "oreos & cream" and "peanut butter chip," Cornell now has an ice cream which truly embodies technology and taste together. Future generations of Cornellians who may have refrained from eating ice cream may now have delicious memories, too.
Most college seniors spend their last months of school desperately searching for a job. When Barbara Berthelsen was a senior at Simmons College in Massachusetts she had the good fortune to notice an advertisement for a position available at Cornell University. The opening was listed as “reference librarian, including part-time in maps.” Berthelsen took the job and 35 years later she is still the map librarian at Olin Library; a “part-time” job which quickly turned into a full-time endeavor.

How did the map collection at Cornell develop? The generous contributions of Andrew D. White formed the nucleus of the Cornell libraries’ map collection as well as the book collection. “Andrew White as a historian understood the importance of source material. His interest in French history, especially the French Revolution, caused him to buy as many maps of eighteenth century Paris and France as he could get his hands on,” Berthelsen said. These and other eighteenth and nineteenth century maps are now the basis of the library’s retrospective collections.

When Berthelsen and the Map Collection moved into Olin Library in 1961, the collection numbered about 56,000 maps. “Nine hundred fifty-four sheets were added in December 1984 alone. “The collection is growing very, very fast,” Berthelsen said. This growth comes from a variety of sources. “After World War II the Army initiated a depository program to distribute 20,000 surplus maps to anyone who wanted them,” Berthelsen explained. Many of the maps distributed were copies of old Dutch and British maps that the Army used during the war. Berthelsen’s job included organizing the material as well as serving as a reference guide to it.

The Army Map Service became the Defense Mapping Agency and still carries on a Depository Program in which Cornell participates. Cornell has been a depository for the United States Geological Survey program since its beginning and this has resulted in a vast influx of maps into the libraries. There are now topographic maps of every state in the Union with the addition of Puerto Rico, Guam and the Virgin Islands. “It is a fabulous resource to have maps dating back to the 1890s for every state,” Berthelsen exclaimed.

In addition to the on-going depositions...
in Olin Library

by Jacqueline M. Tobin '85

Sorority programs of the Geological Survey and the Defense Mapping Agency, Cornell benefited from a public law passed to allow third world nations to pay off their debts in printed materials rather than in money. As a result, Olin Library received maps from India, Pakistan, Nepal and Indonesia. The program has since ended but fortunately there is no end to the supply of maps that keeps pouring into Olin Library.

On December 5, 1984 four rare maps were donated to Olin Library in honor of Berthelsen. John W. Reps, professor of city and regional planning at Cornell, gave the maps to the Olin collection. Three of the maps are French military manuscript maps from the seventeenth and eighteenth centuries. The fourth map is "Mappa Mundi," one of the first facsimilies of the famous Hereford World Map. "It is a very large, very handsome map of the world as they thought it to be in the thirteenth century," Berthelsen described.

Professor Reps chose to give the collection rare maps, but many people give maps to Olin Library. "I never turn down a gift, no matter what kind of a map it may be," Berthelsen laughed. "I don't know who will use them or for what purpose, but they are here whenever someone needs them." As a result, Cornell Libraries is one of two sources in the country listed as having substantial holdings of old road maps, having great potential value in showing the development of not only transportation but of land settlement.

The map room, located on the lower level of Olin Library, is open to everyone. Scores of professors and students take full advantage of this wonderful resource. There are topographic maps, road maps, soil maps, climate maps, geological maps, city maps and many more. Students in the College of Agriculture and Life Sciences, the Department of Geological Sciences, the School of Civil and Environmental Engineering and the College of Architecture, Art and Planning are heavy users of these maps. Excellent resources for students in the ag college are the national atlases which contain statistical compilations of each country in map form. These atlases have information on production level, farming practices, income level, economic resources and other pertinent information.

Berthelsen feels that the maps are an incredible resource which she would love to see used more often. Even if you don't need to study a map, but would just rather take a look around, Berthelsen will welcome you and proceed to tell you everything you ever wanted to know about maps.

Barbara Berthelsen (far left) inspects "Mappa Mundi", one of four rare maps donated to Olin Library by John W. Reps (second from right), professor of city and regional planning.
AG FRATERNITIES
A BREED APART

by Ann B. Noble '85

Alpha Gamma Rho and Alpha Zeta are a special breed of fraternity here at Cornell. Out of the 53 fraternities involved in the Cornell Greek system, AGR and AZ are the only agriculturally based organizations. Their membership consists of students enrolled in all majors of the College of Agriculture and Life Sciences — from ag economics and animal science to vegetable crops, pomology, communication arts and biology.

AGR alum, Steve Palladino '84, said an ag fraternity is a brotherhood bound by a purpose. "Members of an ag fraternity share a common background. We have come together from a diversity of ag disciplines in hopes of enhancing the future of the industry."

Although primarily ag oriented, diversity is a unique characteristic of the fraternity. Not all members wish to go back to the farm. Many dream of careers in ag engineering, veterinary medicine and food marketing. Others wish to follow the footsteps of fellow brothers who have become successful in banking, agribusinesses, and on Wall Street. In fact, ag fraternity alumni include such personalities as U.S. Secretary of Agriculture John Block and "popcorn king," Orville Redenbacher.

According to David Galton, assistant professor of animal science and AGR member, the majority of today's ag leaders with a college education have fraternity ties. "But the common denominator is their interest in agriculture. They are diversified, but all share this common bond."

Many brothers and alumni alike believe that exposure to different aspects of the ag industry is an important feature of the fraternity. Members come from a variety of geographical and agricultural backgrounds. There are Long Island pre-vet students, Pennsylvania poultry farmers, western New York dairymen and winemakers from the Finger Lakes grape country. Few college courses offer this broad exposure to students.

Ag brothers have a unique opportunity to become more aware of the needs and concerns of fellow agriculturalists. "Instead of becoming specialized in our own interests," said dairymen Palladino, "We graduate more well-rounded. We are tuned into other ag areas."

Acting Dean of the College of Agriculture and Life Sciences, Kenneth Wing '58, MEd '60, PhD '66, AZ and AGR, believes this strong interest in agriculture sets ag fraternities apart from other social fraternities. "Others may have common experiences, social life, and college interests, but not the special closeness that ag members share all through life. Ag students have a similar family background as well as a major. They have a bond back to the beginning of their lives which is not true of other disciplines of study."

Apart from their chapter responsibilities, AGR and AZ members have become leaders on and off campus. They play a major role in key ag organizations such as AG-PAC, the Dairy Science Club, ALS Ambassadors and collegiate FFA and 4-H chapters. They can also be seen helping out at registration, moving tables and chairs for college events, or preparing alumni get-togethers at local farms shows. "We are an organization to help," said Bob Perl, AZ '86. "We are a strong campus resource."

Experience and leadership abilities are a natural outgrowth of the program. "College doesn't teach leadership and responsibility," said Galton, "nor does it encourage students to learn from each other — a natural result of living together in an ag fraternity."

According to George Connerman BS '52, MS '56, AZ, Director of Instruction, College of Agriculture and Life Sciences, and professor of agriculture economics, the fraternity selection process reinforces the special quality of these young men. "They have an aggressive nature that is concentrated."

What do these Greek letters represent to an ag employer? "It's a message," said Wing. "Employers know what it stands for. It's not the actual name or label but the reputation it represents."

A name to place on a resume is not the only benefit of ag fraternities. It also means friendships and contacts made automatically through a strong alumni network. "You don't realize the extent of affiliation until you get out in the field," said Perl. Wing agreed, "The closeness is shared by all ages in an ag fraternity; a commonality for all classes."

AGR and AZ are definitely campus standouts on the ag campus. Their collegiate and alumni brothers share common backgrounds and keen career interests. Cornell undergraduates and professors are bound together by strong fraternity ties. Together they are an integral asset of the New York State College of Agriculture and Life Sciences, an asset that helps make the College the best in the country.
INVESTMENT
by Nancy Simpkins '85

This year for the first time in its history, the Cornell Concert Commission has received funding from the University: $18,000 for three concerts. The reason for the funding is that popular concerts would otherwise be too costly to bring to Cornell.

The problem began in 1981, soon after the Syracuse Carrier Dome was built. "The concert market is in Syracuse now. It used to be here," said commission chairman Gregory Im, Arts '86. Before the Carrier Dome was built, top groups like the Doobie Brothers, Bruce Springsteen, Boston and the Cars played at Cornell. "They can make more money at the Carrier Dome," said Jim Perkins, Arts '85, the commission's former promotion chairman.

At one time, profits from Barton Hall concerts made up for losses from Bailey Hall shows. Barton, which holds 8,000 people, was used for concerts with wide appeal, while Bailey, seating about 1,800, was used for smaller shows which appealed to more diverse audiences. In recent years, however, the commission has lost money in both halls, and this year there have been no Barton shows at all.

Groups who are too small for Barton but who can fill Bailey often cost too much for Cornell to break even. Therefore, the commission appealed to the Student Assembly for help in continuing to perform its function: to provide the Cornell community with popular entertainment. The assembly granted the commission a percentage of a planned increase in the student activity fee. The money has been used so far to offset losses from Ray Charles and Herbie Hancock shows.

Who decides how to spend the Concert Commission's money? Concerts are chosen by the commission's seven member executive board: Chairman Gregory Im, Arts '86; Finance Chair Susan Kuniholm, Arts '88; Production Chair Andrew Wyatt, Arts '87; Selection Chair Mohammed Mobarak, Eng '87; Promotion Chairs Howard Kibrick, HuEc '87 and Vicki Lee, Ag '86; and Administrative Chair Dave Resell, ILR '87.

The first step is for Mobarak to contact promoters and find out who is available. After eliminating groups who are out of the commission's price range, he matches dates that groups are available with dates that a suitable hall is available. Barton Hall is rarely available since ROTC and athletics have priority for its use. Usually concerts are held in Bailey Hall, although a few shows have been done in Statler Auditorium. If there is a hall available and the executive board believes that an artist will do well, the commission submits a bid.

The determination of an artist's popularity is often no more than an educated guess. Jazz has done very well this year, and folk music has done well in the past, but "popular music is strange," said Mobarak. "It can do well or die."

The executive board members try not to let their personal tastes interfere with the decision of who to bring to Cornell. The board does discuss availabilities with the 80 other commission members who attend weekly meetings, but this is not often a reliable indicator of the Cornell community's tastes. "Sometimes the membership is more avant garde than most people," said Im. "We need to get a wider cross section of the University," added Doug Kelley, Eng '85, the commission's former production chairman. Unfortunately, said Paul Zablotski, Arts '85, the current lighting director, "Most people who like mainstream music are not willing to spend half an hour a week coming to our meetings — they're not interested enough in music to invest that kind of time." Zablotski thinks that a music survey taken last year was inaccurate because "people who filled it out might not be willing to spend the $10 to see the groups they said they liked." According to Im, "George Thorogood didn't get many votes and that concert sold out." This year a survey is being taken again and the commission hopes to improve its accuracy through better wording of the questions.

According to Mobarak, the final decision to do a show is based on past performance, opinions of people who have been in the community for a long time, and what is doing well on music charts and being played on radio stations and on music television.

This year's shows have attracted large crowds: George Thorogood and Wynton Marsalis sold out, and Herbie Hancock and Ray Charles came close. Jean Luc Ponty's March show has not been subsidized, so the commission has $6,000 remaining for another show. "Spring is a hard time for us to get shows," said Im. "Rich college boards who want a group will push the price up." With the new source of funds, however this year the Concert Commission will be better able to compete.
Closing the seemingly unbridgeable gap between theories learned in the classroom and practical application is a problem that educators and students alike are anxious to resolve. One solution for ag students who plan ahead and check out the alternatives is a program that is geared specifically to fill the theory-to-practice void. The option: Field Study. The place: just a skip away from the quad in the Field Study Office in Martha Van Rensselaer Hall.

First of all, what is “field study”? Designed as an interdepartmental faction that ties together the departments of the College of Human Ecology, field study integrates theory and practice by placing students in community work settings where they reflect upon their experience through discussion, seminars and critical evaluation.

For many ag students who are searching for further insight into the nature of applying theory to practice, this fresh approach to learning may be the ‘creative other’ they’ve been looking for. “The program differs from traditional internships in that we’re much more structured, much more closely supervised,” said Michele Whitham, coordinator of Ithaca area field study. “Because of this structure, students develop a more critical approach to understanding the dynamics of their placements.”

“Working in the real world before graduating lets you know for sure whether you’re headed in the right direction,” said Kirsten Mikalson '85, a communication arts major who participated in the program last fall. “All along, I wasn’t really sure about just what career I wanted to pursue—public relations? publishing? advertising?—and my experience helped me confirm my choice.” She worked for Ketchum Advertising in New York City, got a taste of what the field is all about, and has set her sights upon advertising account management.

Four different programs are offered in the interdepartmental (ID) program: The Ecology of Urban Organizations, which involves placement in New York City; The Ecology of Organizations in the Upstate Region and Field Experience in Community Problem Solving, which involve placement in the Ithaca area; and Sponsored Field Learning or Internships, which involve placements in areas other than...
New York City and Ithaca. For each course, the ID prerequisite, Preparation for Field Work: Perspectives in Human Ecology, initiates students to the skills essential for gaining the most from the field study courses.

Each course, regardless of its setting, studies the intra-organizational, interorganizational and community factors that influence and shape each individual student’s field of interest. And the fields are many. Courses are open to students from all colleges within the University; this wide-range representation adds to the broad scope and diversity of the program.

The emphasis on ecology within these courses underlies the commitment of the college. “What we’re continually interested in is the interaction of people within their environment,” said Whitham. “That is basically what ecology is all about.”

Not only are ag students welcomed into the program, they’re encouraged to learn about social interactions within their own fields in a way that they may have never previously studied. “We believe that twentieth century knowledge demands organizational literacy,” said Whitham. This is gained by looking into the organizational structure of work places and how the organizations interact within the community.

“There are numerous opportunities for ag students, especially in the fields of marketing, personnel management and production, and communications within the city program, while banking and investment placements are readily found here in Ithaca,” said Whitham. And, just because of the nature of the Ithaca-based course which emphasizes rural community interaction, rural sociology placements would be particularly applicable.

Leslie Greenberg ’85, who participated in the New York program last fall, majors in human development and family studies while minoring in communication arts. Her field study placement was with Myers Communication Counsel, a public relations firm for whom she wrote press releases, created press kits and promotionals, and participated in setting up photo shoots.

“I was able to go everywhere and do a bit of everything,” said Greenberg. “The greatest thing, though, was getting away from Cornell, away from Ithaca, and yet knowing I had Cornell support to lean on when I wanted.”

Although the program is rather structured, a strong plus for those still wary about being cast out alone into the world beyond rests in the internal flexibilities. For instance, if the ideal organization isn’t listed in the vast field study archives, tailoring one’s own placement is encouraged.

Another flexibility concerns the number of credits one chooses to apply for. Because of the program’s emphasis on integrating theory with practice, one can work for as many as 15 credits or, if one wants just a taste of the field study experience, one can integrate the credits—as few as four is possible—into the regular semester’s course load.

The possibilities open to ag students are numerous, varied and waiting to be tapped into. Just the right amount of curiosity added to a good dose of initiative will open the door to the community classroom— independent field study: the ‘creative other.’

by Mary Jaye Bruce ’85
In 1975, a committee was formed to study the problem of nudity on the agriculture quad. No, students were not running around naked. On the contrary, it was the bare landscape that was in desperate need of attention.

Although majestic elms had graced the quadrangle for nearly 60 years, by the mid-1970s Dutch elm disease and elm yellows, a second lethal disease, had destroyed the last of the trees. Dutch elm disease, which had been present in downstate New York since 1933, was discovered in Ithaca in approximately 1954. According to Wayne Sinclair, a professor in the Department of Plant Pathology, the elm population on campus was relatively secure until the mid-1960s, despite the local presence of the disease. However, in 1968 and continuing for the next eight years, a series of events including the arrival of elm yellows, occurred coincidentally and contributed to the final demise of the elms.
"We probably didn’t have a chance of saving the trees," Sinclair said. Whereas elms can be preserved from Dutch elm disease by using intensive control procedures, Sinclair said that it is virtually impossible to save trees in the presence of both diseases.

With the agriculture quad stripped of its stately elms, plans began quickly to restore the once lush, green canopy over the area. According to Prof. Marvin Adleman, coordinator of the Landscape Architecture Program and a former member of the Committee on Restoration, the alternatives for the replacement of the trees were limited. The original design — two rows of elms running lengthwise down the quadrangle — could not be repeated due to the maze of utilities which had since been installed beneath the quadrangle. A new design was therefore needed.

In 1977, a competition was held and a design conceived by students in Adleman’s Landscape Architecture Studio was implemented. Adleman agreed that the informal approach of the winning design was an excellent idea since it would provide a more pleasant-appearing space and permit a diversity of tree species to be used. Diversity was an important consideration not so much for aesthetic reasons but for potential disease suppression. Thirty-eight trees of 13 species, including red and black oak, sugar maple, red maple, basswood and tulip, were planted that year.

The restoration efforts were funded entirely by private contributions. Alumni and friends of the College were particularly receptive to the idea of restoring the quadrangle and generously funded trees and benches. A plaque in the lobby of Mann Library locates and identifies the trees donated and indicates the donor’s name and the name of the person in whose honor it was given. The College, in fact, still receives and accepts requests from alumni for tree donations, but further plantings within the quadrangle itself are being postponed until Academic I, which will be located at the west end of the quadrangle, is completed.

Eight years have passed since the plantings on the agriculture quad were completed, and while the area is not concealed beneath a canopy of leaves, plant life has at least reestablished itself nicely. Perhaps the thought that lingers in many of our minds, however, is whether the area will ever resemble the glorious days of old. Adleman said that the agriculture quad will never look like it used to simply because no other tree can replicate the unique column and canopy effect of the elm. Even if the new trees do not canopy as precisely as the elms, they will shade the quadrangle in their own special way. That way for many of the trees will include an eventual branch spread of one-tenth of an acre. In fact, Sinclair exclaimed, “It will be a forest out there in 50 years if all goes well!”
Where the Boys Are

by Douglas Weiskopf '85

No matter how much students tend to dread another semester of endless assignments and incessant sleep deprivation, there is a tendency to look forward to the first day of classes with a certain nervous curiosity. Perhaps a holdover from pre-college days, when the number of good friends in the class and the teacher's looks were of paramount importance, students mosey off to the first classroom in order to see what the semester holds in store. Our senses sharpened, we notice things on that first day that might go unnoticed at any other time. Such was the case with me.

Attending my first session of none other than The Cornell Countryman (known formally as Print Media Laboratory), I looked around and came to an unmistakeable conclusion: I am the only male member of the class. Indeed, this particular circumstance is simply an extreme case of an existing situation in the Department of Communication Arts. The student body consists of far more women than men. Had such a phenomenon occurred in high school it would have changed my entire attitude toward schooling. But having spent seven semesters cultivating my intellect at this bastion of scholarship, I immediately assumed a sociological perspective and asked myself "What are the implications of this manifestation?"

Since good studies begin with research, that's where I began this one. Looking through the enrollment figures of communication arts majors from 1975 to 1985 revealed that the number of men specializing in the field remained fairly stable over the ten-year period, rising from 52 in 1975 to 63 in 1985, while the number of women in the major doubled, shooting from 70 to 140. Over this same ten-year period the number of women enrolled in the entire College of Agriculture and Life Sciences increased by slightly over a third. The increased enrollment in the College was one factor, but there was surely a more important reason why so many women were choosing communication arts. Interviewing tools in hand, I went off to ask somebody for some insightful information.

Actually, I asked four somebodies. Desiring the full range of opinions and expertise (and not wanting to be accused of biased research), I solicited information from a male communication arts faculty member, a female faculty member, a female communication arts student and a male student, the last interview being the most difficult to secure. The question I asked each of them was simply "Why are there so many women in communication arts?"

"It could be due to the roles that the different sexes still tend to learn as children," offered Prof. Donald Schwartz, Chairman of the Department of Communication Arts. "Girls excel in verbal and writing skills, and boys do better in math and sciences. Because of their skills women have been welcomed into communications fields, especially public relations." Pro-
Professor Schwartz noted that there are so many women in public relations that the undesirable term “pink collar” is starting to be applied to the profession. What I had at first believed to be a Cornell trend was actually a national trend. I was really on to something, but exactly what? Professor Schwartz told me, “As a larger cohort of females is moving through the colleges, it should change the profile of the job market. You find uneven numbers in the classroom?

“I don’t think you notice if it is a man or a woman, it is just another person that you are competing against,” according to Mary Ann Mastrobattisto ’86. Mary Ann feels that she is going to have to work side by side, and compete against both men and women once she leaves school, so she does not let the numbers affect her. Eager to get a majority opinion, I asked Mary Ann said Ralph, being the fine communicator that he is, “I guess I don’t have to worry about razor stubble.” Ralph did not seem to be nearly as concerned with the male vs. female issue as I was. A transplanted College of Human Ecology student, Ralph is quite used to being one of the few men in his classes. Echoing Mary Ann’s sentiments, Ralph stated, “I’m not really aware of the differences in the sexes. I don’t view the communication arts women as anything different from my other classmates.”

I used to feel the exact same way as Ralph. But being the only guy in a particular class does have its effects. Professor Schwartz turned the tables on me during our interview and asked how I thought this experience might affect or influence me. After a slow, pensive sip of my Diet Coke, I told him that it helped me to interact with women in different situations and that I had gained a greater sensitivity in working with them. I also confided that I was much more likely to shave on days when the Countryman met and that I never wore the same thing to two consecutive meetings of the class. After all, I’m only human.

Ever since I first labeled the women-in-communications phenomenon, I was forced to ask myself if this was really an issue. Was I simply displaying some form of chauvinism by being so aware of the male/female ratio? Rather than try and figure out the answer myself, I posed it to Professor Schwartz. “It’s a curiosity question,” he replied. “Are we making a mountain out of a molehill? Probably, because these distinctions should be done away with. But if we want to be sociologists then there is an interesting phenomenon. That’s what makes news.”

So that’s the key; assume a sociological perspective, which is what I have done here, and you get news. I think I’ll keep this formula a secret. After all, a minority can use all the advantages he can get when looking for a job.
Aside from belonging to the New York State College of Agriculture and Life Sciences at Cornell University, what do a professor of floriculture and a Cornell Big Red Marching Band member have in common? Well, when they were invited to lend their artistic abilities to the 50th Presidential Inauguration ceremonies on January 21, 1985, they both responded in the same way — they accepted, naturally!

For Professor Raymond T. Fox '47, MS '52, PhD '56, of the Department of Floriculture and Ornamental Horticulture, and Robert Hardy '85, a food science major and band member, the days preceding the swearing-in of President Ronald Reagan were spent making preparations with others in their fields. From morning until night beginning January 17, 1985, Fox, along with other floral designers, worked on arrangements for nine inaugural balls and two galas, while Hardy rehearsed with members of the All American College Marching Band for three performances. They came away with recollections of personal fulfillment and pride.

Fox is a member of the Society of American Florists (SAF), the national organization of florists asked by the Presidential Inaugural Committee to design the floral arrangements. The American Academy of Florists (AAF), a select group within the SAF, looked to its members for volunteers. The only Cornell representative there of the honorary society, Fox offered his services and departed for Washington, D.C. four days before the inauguration.

Considering the short time period and the large scale of the convention halls, the decorating task was tremendous. Fox noted that he, and approximately 100 other AAF volunteers, worked in less than ideal conditions. "The largest area was about eight football fields in size. Whoever designed the place was nuts," he mused. "There were no water outlets, except in the ladies' and men's rooms. You had to literally walk a couple of blocks just to get a pail of water. We ended up using one of the fire hoses." It seemed incredible, he said, that a facility the size of the Washington Convention Center should be lacking the essentials for staging a huge affair. "You always need water," he said.

More than 300,000 fresh flowers were donated by U.S. and foreign growers and wholesalers. The various

Robert Hardy in the official uniform of the All-American College Marching Band.
Floral arrangements adorned the inauguration. Raymond T. Fox (above) designed displays like this one.

Teams of designers were responsible for converting the flowers, along with assorted foliage and greens, into more than 2,000 floral arrangements.

The patriotic floral theme used by the SAF at the 1984 Los Angeles Summer Olympics was repeated for the inauguration. It featured red and white flowers set against blue lamé draperies and bunting. Roses, carnations, gladioli, chrysanthemums and anthemium were among the flowers used. The arrival of frozen orchids at the Washington Armory, which was flooded by a “sea of flowers,” was a disappointment to the florists, eliminating that flower’s use for various arrangements.

“There were essentially two basic arrangements used at all the balls; a conical tree-like arrangement mounted on a pillar, and a hanging plaque,” he said. Balconies, seating areas and stages were decorated. At the entrances to the ballrooms, presidential invitation cards were ensconced amongst floral arrangements.

Gold and white presidential seals were flanked by urns holding 100 three-foot, long-stemmed roses. “It was the 50th Inaugural, so they wanted to make a big thing out of that,” Fox explained as he described how blue and white 50th Inaugural flags were stuck into the tree-like arrangements.

“It was exciting and sort of exhilarating,” said Fox of his experience. The workers were pressed for time, however. “We had a deadline—everything had to be done by Monday noon because after that there was a security sweep and bomb-sniffing dogs were brought in.”

While Fox was not encumbered by security measures, Cornell’s other representative at the inauguration felt otherwise.

“Security was incredible,” Robert Hardy commented. “Everywhere you went you had to go through a metal detector, and hand them anything you were carrying so they could check for bombs and things.”

As one of 450 students who composed the All American College Marching Band, Hardy, who plays trumpet, was the only representative from the Ivy League. He felt that playing with the band was not only a musical experience, but a chance for observation as well. “To me it was interesting to see how they taught marching to a band that size, because I was show committee chairman at Cornell for the Big Red Marching Band this past season.”

As chairman he was responsible for writing and teaching the drills and choosing the music. “Just the difference in teaching technique was interesting too.”

The highlight of the inauguration featuring the All American College Marching Band should have been the parade down Pennsylvania Avenue, but bitter cold and sub-zero temperatures forced its cancellation, along with a performance at the Jefferson Memorial. After the inauguration itself, the band played at the Capitol Center as a sort of compensation for not being able to march. “President Reagan was there and he addressed all the participants. We played about 25 minutes for him.”

Did he get to meet the president?

“No, we performed for him three times, but I only saw him that once.” Among the band’s repertoire was “The America Song,” which they performed at the Capitol Center, along with “God Bless the U.S.A.” They also performed with Mac Davis at the Washington Convention Center. Rather than mimicking a pre-recorded tape, the band performed live, thus setting a precedent. “This was the first time that Art Bartner, the band’s director, and the NBC television network had had a band do it live in the studio,” Hardy said. The band’s first performance had been the night before at the “Prelude on the Ellipse,” where they performed outdoors before 2,500 dignitaries.

Fox and Hardy will no doubt remember the 50th Presidential Inauguration as having been an extra special event, and Cornellians should feel proud of these men for having had the honor to contribute their talents at their country’s request.

The seal of the 50th Inauguration surrounded by flowers.
"We were pioneers. As long as you succeed, it's fun," said Professor Emeritus Elmer Phillips '32. "Flip" Phillips, as his colleagues call him, has been retired since 1968. "Pioneer" is an accurate self-description, for that is exactly what he has been for Cornell's Department of Communication Arts in the College of Agriculture and Life Sciences.

Phillips played a large part in setting up the visual section of the Media Services division, then a part of extension teaching and information, currently communication arts, in the ag college. Phillips decided, while still in high school, that he wanted to do something that would help teachers to teach better. "I had some teachers who were real duds," he said. "Not because they weren't trying, but they'd switched disciplines for one reason or another, and they just weren't doing a very good job." So, he left his family in Brighton, a town east of Rochester, came to Cornell, and earned his tuition through freelancing in photography and work at a Boy Scout camp.

After he graduated in 1932, Phillips wanted to set up a photography unit to help with teaching and research. College of Agriculture Dean Carl E. Ladd '12 turned down Phillips' proposal saying he could see the need, but there really was no demand. Little by little, though, Phillips' high school dream came true.

He worked on the speech conferences for the 75 students then enrolled in the extension teaching and information department, and he kept taking pictures. His booming "Welsh voice," as he called it, was put to use on the University's part-time radio station making announcements for the ag college, and sending out news releases to area radio stations.

Before World War II, Phillips worked with some of Cornell's electrical engineers to perfect the sound recording equipment at the radio station. Phillips was able to record talks and speeches given on campus, such as one by F.B. Morrison, world authority and head of the Department of Animal Husbandry. The record of the speech was duplicated and distributed to other radio stations. This was a radical concept, and the recordings were so good that similar recordings became a regular distribution by the College.

The communications program grew, the radio station grew, and Phillips kept taking pictures. He worked with Professor Alexis Romanoff from the Department of Poultry Science to produce a film on the development of the chick embryo. What is now a routine process was revolutionary then. The dilemma was to get inside the egg without interrupting the chick's development. Romanoff and Phillips came up with three techniques: the first was to film the unopened egg with a light behind it, so the shell became translucent; the second was to crack a number of eggs into petri dishes at different stages of development; the third technique was to invert the egg with the pointed end down, gently cut the shell around the top of the egg, and have the camera look inside the opening at the developing embryo. An example of the creative thinking Phillips used and continued to use throughout his career involved suspending a thin layer of

Clockwise from top center: A photograph taken by Phillips entitled 'Shoreline Fisherman'; Phillips fishing for King Salmon on Karluk River, Kodiak Alaska; Another photograph taken by Phillips entitled 'Beauty for the Pictorialist'; Phillips at the radio station in the 1940s; Phillips working on a mass media campaign.
mineral oil across the opened part of the egg shell in the third filming method so that light would not be glaring off the embryo and the camera would get a clear view.

During World War II, L.R. Simons, Director of Agricultural Extension, called Phillips in and described his problem. The fleet of extension cars normally used by agents was one-third immobilized, public transportation was crowded because of gas shortages, and Simons' goal was to increase agricultural production and reach women who were at home to train them in food preservation. "So," Phillips said, "We put the message on film, and let Uncle Sam carry it through the mail to extension offices that were hard to reach." This was a pioneering method for reaching people during this time.

In the years after the war, agricultural extension sponsored a program for training missionaries in agricultural techniques. "To save the soul, you had to fill the belly," said Phillips. But there was a problem because the wet, humid climate of places like the then Belgian Congo ruined film. "Various little beasties loved the gelatin coating on the film." Phillips worked with companies like Kodak and Ansco to develop methods to preserve film. At about that time, silica gel, a crystalline substance that absorbs moisture, was developed. Phillips then wrote a brochure for the missionaries on how to care for their film and cameras.

The communication arts program expanded, and Phillips taught not only Visual Communication, but Photo Communication as well. His philosophy was to make students so proficient at photography that it "became second nature to them." By 1964, there were 15 people working on photography, art, and exhibits. New York joined Michigan, North Carolina, Wisconsin, and Pennsylvania, as the only states with outstanding visual services programs at the university level.

"One of my biggest thrills was when someone would stand in the open doorway of my office on the fourth floor of Roberts Hall, and say, ‘Flip, I’ve got a problem.’" Phillips’ high school dream had come true.

Retirement has not stopped Flip Phillips, either. "I can’t work at one thing for too long or I get bored," he said. After 17 years in retirement, he came back to Cornell last semester to teach Visual Communication once again. Students were treated to original slides, examples of exhibits and movies. Even Phillips’ hobbies, like fly-tying, have become visual projects. He made a very detailed, step-by-step movie on how to tie flies, and he became interested in fishing because he was taking pictures of a Cayuga Lake research project. Since then, he has travelled from Canada to Costa Rica to fish.

He said he takes a canoe with him when he goes to visit his daughter in Idaho. He also has sons in London and Watertown, NY. He and his wife have ten grandchildren and one great-grandchild. "I told the students in Visual Communications they were getting an old rascal for a professor!" he laughed.

A pioneer in print, on film, and in broadcasting, Phillips has played a large part in making the communication arts department and media services what they are today. His teaching has touched many a student, and his talents are part of the brochures, films, and slide shows of many of the departments in the ag college. He is truly a man of many media.
THE CHANGING OF THE FIELDS

by Laurel A. Shuster '86

The fight to keep Alumni Fields as recreational athletic areas free of parking lots, cement blocks, steel studs, and science labs is a tough one which has been battled since the early 1900s. And Laing E. Kennedy '63, Director of Athletics at Cornell University, considers this challenge to be important.

"The original donors would be rolling over in their graves if they saw what happened to Lower Alumni Field," said Kennedy. In 1903, alumni set aside 60 acres of land, centrally located on campus, to be used for athletic facilities and recreational sports areas. The new fields would replace Percy Field, located down the hill in Ithaca, which was used for all athletic field sports.

By 1922, Hoy Field, Bacon Cage, Schoellkopf Memorial, Schoellkopf Field, and Barton Hall were complete. The original plans for the land were being fulfilled and Cornell athletic facilities were sprouting up in abundance on campus. Upper Alumni Field and Lower Alumni Field — where Dale R. Corson, Seeley G. Mudd and the Academic II buildings now stand — were used for recreational purposes. Lynah Rink and Teagle Hall were erected adjacent to the fields in the 1950s. Students could easily walk to the athletic areas to participate in intercollegiate, intramural and club sports as well as recreational activities.

But, in 1946 the Cornell administration "announced that Hoy Field was the preferred site of the new School of Industrial and Labor Relations," according to historic background of the fields compiled by the Office of Athletic Public Affairs. Cornell students and alumni were in an uproar over the new proposal and cited the decision made by the Board of Trustees in 1902 that Alumni Fields were designed specifically for use by the Athletic Association. The Trustees backed the alumni stating "that no reduction be made in the actual size of Alumni Fields as previously set aside by formal action and devoted to athletics and out-door sports." Eventually, the ILR school was built elsewhere.

What happened to this consensus to preserve the initial plans for

Upper and Lower Alumni Fields in earlier times.

Soccer players take advantage of Lower Alumni Field.
Alumni Fields when proposals for Mudd, Corson, and the Academic II buildings were presented? All of Lower Alumni Field, adjacent to Teagle Hall and the athletic building parking lots, was converted to academic rather than athletic facilities. "A trade-off was made," said Kennedy. "the athletic department was given the opportunity to exchange Lower Alumni Field for the use of Jessup Field," which is located on the northernmost end of North Campus.

"I don't know where they would put these buildings if they didn't put them there," Kennedy said. As Director of Athletics, however, his loyalty is to the alumni who originally donated the land there to the Cornell student body. "The vision of our forefathers in setting aside Alumni and Hoy Fields is very laudable. Open green areas on a major campus such as Cornell are a dying breed," he said.

"One of the unique aspects that makes this campus great is that there are open green areas. Not very many major universities can say that."

Kennedy is extremely concerned about the future of Alumni and Hoy Fields. "There is continual pressure from the administration and academic community to use the fields for potential building sites," he said. "The encroachment on athletic areas is my biggest fear. For instance, the baseball diamond could be relocated in an apple orchard somewhere off-campus if the university wanted the land for another building."

Already, the new buildings on Lower Alumni Field have "created a congestion of buildings and parking problems in central campus. Rather than spacious green playing fields, there are people, cars, and buildings," Kennedy said. "It's a travesty of Mother Nature."

Kennedy's main objective is to enhance the Alumni Field land into "first-class outdoor recreational fields." The sod on Upper Alumni Field is currently being refurbished and replenished. "I take the challenge to preserve Alumni Fields and athletic facilities very seriously," said Kennedy. "A precedent has been set, but I have confidence in the present administration and the Board of Trustees that these areas will be preserved."

With Kennedy's perseverance, perhaps the changing of the fields will at long last come to an end.
The Cancer-Nutrition Connection

by Kirsten L. Mikalson '85

Can you prevent cancer by the way you eat? Yes and no, said Michael N. Kazarinoff, professor of nutritional biochemistry in the New York State College of Agriculture and Life Sciences, whose research with rats and dietary modification has resulted in new insights into the cancer-nutrition connection. His studies indicate that low-protein diets may protect against cancer of the liver but promote the likelihood of cancer of the colon. His work also suggests a link between cancer and dietary patterns like fasting and refeeding.

Kazarinoff began his research by examining levels of the enzyme ornithine decarboxylase (ODC) in the colons and livers of rats. ODC levels in the body rise as a result of cell proliferation, making the enzyme useful in detecting tumor growth. ODC levels rise whether the cell multiplication is healthy or cancerous.

After feeding rats that had been subjected to a period of starvation, the levels of ODC in their livers rose to about three times that of the control rats. When rats that had been put on a low-protein diet were returned to a normal diet, ODC levels in their livers and their colons rose significantly.

The rats on low-protein diets were later exposed to a tumor promoter, with interesting results.

When the tumor promoter was administered, ODC levels in the livers of the rats fell below the level in the control rats, but the ODC levels in their colons rose dramatically. Hence, a low-protein diet may protect the liver from cancer while making the colon perhaps more vulnerable to the effects of a tumor promoter.

Kazarinoff hesitated at this point, however. "It's very difficult to extrapolate the findings of an experiment done with rats to humans," he says. "We cannot be sure of the implications of these results. The topic of cancer is a very emotional one, and people tend to grab at straws when it comes to cancer research, hoping for a cure. The disease, however, is so complex that each bit of information we gather is simply a small piece of the puzzle."

As interesting, but also as inconclusive, are Kazarinoff's experiments with eating patterns and increased cancer risk. When starved rats were fed and exposed to a tumor promoter, the effect on ODC levels in the colon was dramatic—there was 16 times the normal amount of ODC in the rats after treatment.

How does this affect us? "Rats normally nibble their food for about 16 hours out of the day," Kazarinoff explained. "When they are only allowed to eat for two hours out of the day, they adjust and eat their typical amount in those two hours. This is enough to promote the increase in ODC levels. We might be able to assume from this that someone who eats just one large meal a day might be subject to the same effect."

Consuming most of our daily calories at one meal may contribute to cancer of the colon.

Many of us follow such an eating pattern, skipping breakfast, snacking for lunch, and filling ourselves at dinnertime. If Kazarinoff's rats are reacting the way we do to this type of binge/starve cycle, we could unwittingly be putting ourselves at a greater risk of contracting cancer of the colon.

Kazarinoff pointed out that different types of cancer are predominant in different parts of the world, depending largely on diet.

"Africans, for instance, have a much lower incidence of colon cancer than we do in this country, because they eat more grain than we do. Nevertheless, that same grain puts them at a higher risk of liver cancer. Fungal toxins in stored grain tend to promote liver cancer there," he said. "A certain type of diet may simply increase the risk of cancer in another tissue site."

Although the experiments have not produced any definite results, in the end, it all seems to boil down to Kazarinoff's best advice: "The old adage 'Eat Balanced Meals' must be true."
Chairmen Appointed

Peter J. Bruns, professor of genetics and chairman of the Section of Genetics and Development, has been appointed associate director of the Cornell Biotechnology Program. The Cornell Biotechnology Program is composed of the New York State Center for Advanced Technology for Biology and the Cornell Biotechnology Institute. In the program, university researchers work with corporate scientists in the Biotechnology Institute.

Bruns has been a faculty member of the College of Agriculture and Life Sciences since 1969. He focuses his research on the genetic and reproductive functions of the single-celled animal, Tetrahymena. Much of these findings can be applied to the genetics of other animals.

William E. Fry PhD '70 has been appointed chairman of the Department of Plant Pathology in the College of Agriculture and Life Sciences, for another two-year term. He has held this position since 1981, and has been a member of the Cornell faculty since 1971. He has researched factors affecting plant epidemics and the mechanisms of natural disease resistance in plants. His most recent work has focused on developing integrated pest management (IPM) for potato production.

Eugene Erickson, has been reappointed chairman of the Department of Rural Sociology at Cornell for a five-year term. Chairman since 1979, Erickson also has served as the leader of Cornell Cooperative Extension programs in his department and as the University ombudsman. His teaching and research mostly involve regional development.

Maurice J. Tauber, professor of entomology in the College of Agriculture and Life Sciences at Cornell, will serve two more years as chairman of the Department of Entomology.

The author of more than 100 scientific articles and monographs, Tauber has served as chairman since 1981 and has been a member of the Cornell faculty since 1966. His teaching and research focus on biological control and insect seasonality. He is a Fellow of the Entomological Society of Canada and the American Association for the Advancement of Science. With Catherine Tauber and Sinzo Masaki, Tauber wrote a book, Insect Seasonal Cycles, to be published by Oxford University Press.

William D. Pardee PhD '60 has been reappointed chairman of the Department of Plant Breeding and Biometry in the College of Agriculture and Life Sciences. He has been chairman since 1979 and now will serve three more years.

Pardee, a specialist in field crops, is recognized nationally as an authority on seed production. He has developed educational programs for seed growers and dealers, farmers, and for Cornell Cooperative Extension agricultural agents and specialists.

Fellowship Grants

The U.S. Department of Agriculture has granted Cornell University a special fellowship award of $95,000 to recruit six outstanding doctoral students interested in careers in human nutrition and food science. The Division of Nutritional Sciences, a joint unit of the College of Agriculture and Life Sciences and the College of Human Ecology, will receive three of these fellowships in nutritional biochemistry and human nutrition. The other three are for graduate study in the College of Agriculture and Life Sciences’ Institute of Food Science in food chemistry, food microbiology and food processing-engineering.

Of the 18 universities that applied for fellowships in nutrition and food science, Cornell’s proposal was ranked first by the USDA’s Agriculture Research Service. The fellowships begin in September 1985.

Student Awards

Cornell University students stole the show at the recent Northeast Regional Soil Judging Contest that annually picks the top two teams in the region for national competition. One of the two Cornell teams won the regional championship and will go on to compete nationally this spring at the University of Tennessee.

Cornell students took the first three places in individual competition, and the other Cornell team placed fourth among the 12 teams from seven universities in the northeast.

Ray Bryant, the coach of the Cornell teams, is pleased and said, “This is the first time for six of the seven students on our teams to compete in a soil judging event of this kind.”

Debate Team Wins

Cornell’s forensics and debate teams are enjoying great successes. Coached by communication arts lecturer Pam Stepp, 14 students have qualified for national competition in forensics this year. Stuart Atwater '86 qualified for the most events, eight out of the ten possible speaking and drama categories, while Kenneth Williams '85 qualified for five. Stepp said, “The highlight of this year for us has been the great job the students did at UCLA.” Five students travelled to California for a three day tournament beginning January 1, 1985. They returned having placed fourth out 56.

The debate team, too, is victorious with first place in seated events at Brown University on February 3, 1985. Currently, there are 60 students involved in the flourishing program.
The undergraduate program in food and agriculture at Cornell will be broadening its audience — thanks to a grant made by the Kellogg Foundation of Battle Creek, Michigan. The foundation awarded the University $101,600 to undertake a three-year program in agriculture and liberal arts. The purpose of this grant is to increase the exposure of liberal arts students to agricultural, food, and nutrition issues.

The undergraduate program in food and agriculture at Cornell has historically been reserved for students in the College of Agriculture and Life Sciences (CALS). This has resulted in most Cornell undergraduates outside of CALS receiving little exposure to agriculture-related issues. This new program will help change that.

One of the first agriculture and liberal arts courses at Cornell will be a philosophy course, Environmental Ethics. This course was developed over a decade ago as an outgrowth of the debates that emerged during the rise of the U.S. environmental movement. The course will be modified to include ethical issues relating to food and agriculture, such as animal rights, human starvation and malnutrition.

Another major part of the program will emphasize field study and experiential learning. The first component of the field study program is the development of summer research in Western Europe for Cornell juniors. This summer eight students from the class of 1986 will do research in five Western European countries. This part of the program is administered by the Western Societies Program of the Center for International Studies.

The second component consists of experiential opportunities in the rural-agricultural environment of Ithaca. Project directors will encourage students to conduct field studies on relationships between agricultural leaders and institutions. The Ithaca area provides many fieldwork opportunities.

The Agriculture and Liberal Arts program is located administratively in the Biology & Society major in the program of Science, Technology, and Society. The Biology & Society major is available to undergraduates in the Colleges of Agriculture and Life Sciences, Human Ecology and Arts and Sciences. Co-directing the grant are two Biology & Society faculty members Frederick H. Buttel, associate professor of rural sociology—CALS; and June Fessenden-Raden associate professor of biochemistry—Arts & Sciences.

The W. K. Kellogg Foundation, established in 1930 to “help people help themselves,” is among the largest private philanthropic organizations in the nation. The Foundation is responsible for the philanthropic support of this new project. And if successful, the University hopes the project will become institutionalized as an inter-disciplinary option.
ABOUT THE ISSUE
Spring is finally here! Catch a bit of spring fever and read about flowers, stewards of the land, an herb garden and other spring oriented topics. Find out how engineering students get "hands-on" experience, how to get a short cut to choice chops, and how two brothers started their own business while still in school. There are new hopes for food production and there is a new program to study women in agriculture and rural change.

3. Speaking of Flowers Nancy Simpkins '86
4. Stewards of the Land Douglas Weiskopf '85
6. Engineering Your Future Beth C. Watter '85
8. Short Cut to Choice Chops Aliza Locker '87
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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor; Edward L. Bernays '12. Faculty advisors: Jill Grossvogel, Jane E. Hardy.
“I realized if Dad didn’t have a florist shop I’d better go into education,” said Charles Clayton Fischer, an associate professor in the Department of Floriculture and Ornamental Horticulture. Fischer has taught Cornell’s popular Floral Design course for the past 15 years.

As a student at Michigan State University in the early 1950s, Fischer majored in floriculture merchandising, preparing to become a florist. He chose this field because he had enjoyed the basic horticulture courses and was also good at art and design. But “Everyone in the department would ask, ‘Where does your family have a shop?’” he laughed. “When I told them ‘My dad has a Ford agency in Indiana,’ they said ‘What are you doing in retail floriculture?’” Fischer then decided to aim for a career in teaching, and continued at Michigan State for a master’s degree. He credits his advisor at Michigan State for preparing him to teach. “He made me take every speech course the university offered. I hated him for it, but I became very comfortable in making presentations, and I’ve been talking ever since.”

Fischer left school after obtaining his master’s since a PhD was necessary then only for those who wanted to do research. “I hate research,” said Fischer. He prefers working with students to working with graphs, charts and statistics.

Fischer’s first job was as an assistant horticultural extension agent in Denver, Colorado. The elevation there caused him health problems, however, so he returned to Michigan, where he worked in an urban extension program. In May 1959, Fischer was invited for an interview at Cornell, and three months later he began work as the horticulture resource person for extension programming.

In 1965, Fischer received tenure and became an associate professor. The following year he took a sabbatical leave to study orchids in Florida. After ten years at Cornell, Fischer began teaching floral design to students at the University.

This semester Fischer turned away approximately 100 students from the basic course, and he requires an application from those who wish to take it. “Sometimes a student says ‘I want to take the course because I just love flowers.’” Fischer shook his head. “I have to know how it’s going to benefit your future career.” He gives preference to students majoring in floriculture, plant science, communication arts and design, as well as to hotel students.

In the fall of 1984, Fischer added an intermediate course for majors. Most of the students majoring in floriculture at Cornell are transfers with an associate degree from a two year school, he explained. Many have had four or five courses in design, and the four year students wanted more design courses available at Cornell.

Fischer also supervises independent study projects, and he is the faculty advisor for Hortus Forum, an educational and social organization for students interested in floriculture. He devotes about 15 percent of his time to writing consumer publications.

In addition, Fischer is an undergraduate advisor. He gives his advisees the same recommendation his own advisor once gave him: “Speech, speech, speech.” He also suggests that they take as many education courses as possible. Fischer’s son is a senior this year, majoring in floriculture. Does he want his son to go into education?

“I’d like him to own a hotel,” Fischer laughed. “I like to travel.” Fischer also likes to read, work on his home or practice his main hobby: horticulture. “My house looks like a greenhouse,” he said.

About a year and a half ago, Fischer developed cataracts and lost his vision. After three operations his sight was restored, and now he has almost perfect vision. This experience has changed his outlook on life. “It made me aware of what a good life I have,” he said. “I love my student audience.”

The teaching of floral design originated at Cornell, said Fischer. E. A. White presented the first floral design course in 1900, and in 1915, he wrote the first floriculture textbook. “I’m honored to continue what he started more than 80 years ago,” said Fischer. For the present, at least, he has no plans to stop.
Most people who have seen Cornell University’s campus would agree that it is one of the most beautiful in the country, but they would probably have a difficult time explaining in any great detail what makes it so appealing. According to Marvin I. Adleman, professor and co-ordinator of the Landscape Architecture Program at Cornell, people tend to take the outdoor environment for granted. “People see the environment as being useful or not useful, pleasing or not pleasing. Most react to it without understanding why. A landscape architect must be able to understand why.”

What exactly is a landscape architect? Professor Peter J. Trowbridge, associate professor of landscape architecture described landscape architects as “stewards of the land.” “We are the watchdogs of the land; our goal is to balance social and economic needs with the preservation of natural, cultural and community resources.”

In a word, a landscape architect is a generalist. Landscape architects strive to make our lives more enjoyable and fulfilling by improving the quality of the environment. Accomplishing this task requires knowledge from a diverse range of disciplines. A landscape architect needs education and ability in graphic and landscape design and drafting. Horticultural knowledge is crucial in order to understand plant growth. A social sciences foundation is necessary to be able to understand human behavior and reactions to the environment, and an ecological education helps the landscape architect appreciate the complex interactions between humans and their environment. The landscape architect must have knowledge of architecture in order to understand the principles of building form and structure. Finally, landscape architects must have an understanding of the construction technology used to actually implement the desired environment.

This mind-boggling array of skills can be conveniently assembled into the “three spokes” of landscape architecture: art, science, and building technology. It is this aggregation of skills that makes the landscape architect uniquely qualified to shape our surroundings. “Landscape architecture requires input and expertise from all of the supporting disciplines,” noted Professor Adleman. “But no other field
focuses on the planning and design of the outdoor environment."

Landscape architecture places emphasis on developing environments that are self-supporting. "New York City's Central Park, designed by Frederick Law Olmsted, the father of landscape architecture, was built out of what was once a dump, but is now a beautiful self-sustaining park. This can't be said about many buildings of the same period that are beginning to crumble," said Trowbridge.

The ability to draw from so many areas of knowledge also allows the landscape architect to deal with more than just the aesthetic aspects of the environment. "Landscape architecture is more than just pretty landscapes, although that is a big part," noted Professor Trowbridge. "We deal with the space between the buildings and create useful, functional commodities. People aren't always aware of the complex planning, design and construction which has been carefully worked out."

The need to combine an education in so many varied fields would seem to be a formidable task for any college or university. However, the success of the Landscape Architecture Program at Cornell is due in large part to the ease with which this barrier is overcome. In fact, Professor Adleman believes that Cornell has proven to be "perfect for the development of a landscape architecture program" because the seven colleges provide support for every phase of the discipline. "Students learn horticulture in the Department of Floriculture and Ornamental Horticulture, social sciences in the Departments of Sociology and Psychology, ecology in the Division of Biological Sciences and planning and architecture in the College of Architecture, Art and Planning."

Knowledge gained in these areas is synthesized at the design studios. The undergraduate curriculum in landscape architecture is centered around a three-year sequence of design studios which begin in the fall semester of the sophomore year. These studios allow students to apply skills in design to develop and reflect their understanding and appreciation of the natural and built environment. The Landscape Architecture Program also offers a three-year Masters of Landscape Architecture curriculum. This program is structured for people with bachelor's degrees in areas other than landscape architecture who wish to change their career focus and become professional landscape architects.

With such a diverse education and a commitment to improve the environment, what, exactly, are some of the projects that a landscape architect might undertake? The project might be to restore an historical site or to develop a new community. Planning might be done to improve the nation's recreational areas or to make the urban plazas and streets more appealing. The project can be as large as an entire region or as small as a neighborhood park or playground.

The landscape architect deals with all aspects of planning and design of the environment. By striking a delicate balance between people's needs and the laws of nature, the landscape architect works to improve the quality of human life through the interaction and enhancement of the environment.
One of the most frequently cited problems of formal education these days is that students rarely get an opportunity to apply their book knowledge to real life settings. This complaint is not unfounded, as many recent college graduates find themselves in unsatisfying career situations despite four years of “preparation.” The University recognized the existence of this problem, particularly in the engineering field, when it established the Engineering Cooperative Program at Cornell.

The program, in its thirty-eighth year of operation, provides students with an opportunity to enrich their educational experience through carefully monitored work assignments in industry and other engineering-related enterprises. Through the program, upperclass Cornell engineering students, including agricultural engineering majors within the College of Agriculture and Life Sciences, obtain approximately 30 weeks of full-time, paid, professional experience. According to Linda Van Ness, coordinator of the program, this work experience contributes to the students’ professional and personal growth and helps relate academic studies to engineering practices.

“The co-op programs offer longer work assignments and more engineering-type jobs than regular summer jobs that students get on their own,” Van Ness said. In addition, students receive more individualized attention since they are placed in job situations that correspond to their needs and interests. Work assignments are periodically reviewed by the program director, K. Bingham Cady, and selected faculty members by written reports from students and employers and visits to the companies.

Participating organizations in the field of agricultural engineering include E.I. Du Pont de Nemours, FMC Corporation, General Electric, General Motors, Hughes Aircraft, Tektronix and Westreco. Of the 208 students who

A schedule of upcoming interviews is determined by computer lottery.
are involved in the program, however, Van Ness said only three or four students from each junior and senior class include agricultural engineering majors.

"I don't think many agriculture students know the program exists for them," she said. Van Ness, who joined the co-op program in October of 1984, said that one of her main goals this year is to increase the number of agricultural engineering students involved and find out what their interests are.

Students, who must qualify academically to be eligible for the program, begin co-op by taking their first semester junior year courses in the summer after their sophomore year. They spend the following fall semester working for a company and return to Cornell in the spring. A second required work period, scheduled for the summer after their junior year, enables students to progress to more challenging assignments or move to different jobs. Although neither the students nor the employers are under any obligation once the program is completed, Van Ness said that about 20 percent of the students take permanent jobs with the company they worked for and an additional ten percent find employment with a different co-op firm. "It's hard to give exact numbers because a lot of students go on to master's programs," she said.

Deborah Taylor BS '84, MS '86 is one of those students. Taylor participated in the co-op program as an undergraduate in the School of Civil and Environmental Engineering because she said, "I had a lot of book-value knowledge, but I hadn't applied anything I had learned."

While at Turner Construction Company in New York City, Taylor was able to get a feel for the engineering business. During her first round of co-op she learned the routine of the company by doing a variety of office work. She was able to apply this knowledge a semester later as a project engineer—an office person who makes sure that the job runs smoothly by contacting subcontractors, organizing the job schedule and solving design problems that arise in the field.

Although Taylor enjoyed working for Turner, she decided that she needed further specialization for her intended career in management. "In order to be an effective manager, you must understand and respect the people you work with, and that requires field work," she said.

Fortunately for Taylor, a research project sponsored by the USDA Forest Service Graduate Cooperative Education Program and offered through the ag college came to her attention at the end of her senior year. "It offered a lot of practical application and opportunity for travel," she said. Taylor returned to Cornell upon graduation to pursue a master's degree in agricultural engineering while doing research work part-time for the Forest Service through the Cornell Local Roads Program.

The research involves the development of a simple and repeatable method to measure extremely dusty conditions on local roads.

In fact, Taylor spent this past summer at Gifford Pinchot National Forest in Packwood, Washington. There, she field-tested a road dust monitor—whose instrumentation was developed at Cornell through the Local Roads Program—with Prof. Lynne Irwin of the Department of Agricultural Engineering. In addition, Taylor participated in various field surveys—establishing monument markers for quarry sites, trail head parking in Mount St. Helens National Volcanic Monument and proposed roads for hauling timber.

"During my seven weeks of summer work experience with the Forest Service, I gained both a vast amount of knowledge and a better understanding of the organization. For an agricultural engineer like myself, a job with the Forest Service offers a wide variety of career opportunities and a unique working environment," Taylor said.

Taylor is just one of many students taking advantage of the cooperative education programs at Cornell. Whether undergraduate or graduate, both programs offer invaluable on-the-job training that enables students to combine the theoretical knowledge gained in school with the practical knowledge attained on the job.
Bite into a succulent lamb chop. The tender meat delights your taste-buds. Yet in the midst of your enjoyment, you realize the meat is almost gone.

Recent research done by Dr. Donald Beermann, an associate professor in the Department of Animal Science, may provide a solution to the lamb chop connoisseur’s disappointment.

In their first experiment, they administered a synthetic compound, beta-adrenergic agonist, in the diet of castrate male Dorset lambs. It was added as a premix to determine effects on growth performance, carcass characteristics, and various aspects of skeletal muscle growth. Initial weights of control lambs and treated lambs were the same. This was similar. Rib eye area increased an average of 30 to 34 percent giving treated lambs rib eye areas equal to those of control lambs fed five to six weeks longer. In B-agonist treated lambs, individual skeletal muscles in the hind leg were heavier. Thus, wholesale leg weights were consistently ten to 17 percent greater. Shoulder muscle weight increased to

He and his collaborator, a nutritionist in the animal science department, Dr. Douglas Hogue MS ’55, PhD ’57, have studied the effects of a newly discovered nutrient partitioning agent. Using lambs, which are practical and economical testing animals, the researchers studied the agent’s effects on growth performance, body composition and rate of metabolism.

The results from their experiments, conducted in March and May of 1984, show very significant increases in muscle growth and decreases in fat deposition in lambs treated with a hormone-like compound, cimaterol.

is a key factor in the experiment since growth rate and composition (amounts of bone, muscle and fat) vary over the life of an animal. Dr. Beermann administered the compound to some lambs for a short term of six weeks and to another test group for a longer term of twelve weeks.

“In the second experiment, we evaluated the effects of the B-agonist with and without fishmeal in the diet and also characterized physical properties of the longissimus muscle or what you would call the rib eye.”

The results of both experiments were similar. Rib eye area increased an average of 30 to 34 percent giving treated lambs rib eye areas equal to those of control lambs fed five to six weeks longer. In B-agonist treated lambs, individual skeletal muscles in the hind leg were heavier. Thus, wholesale leg weights were consistently ten to 17 percent greater. Shoulder muscle weight increased to

a smaller degree, as well.

Besides a greater amount of muscle in the lamb carcasses, fat deposition was substantially reduced. Thirty to 80 percent decreases in subcutaneous fat thickness over the rib eye and 18 to 44 percent reductions in the percent of kidney and pelvic fat were apparent. Therefore, with cimaterol administration, yield grade improved one whole grade on the scale of one to five used to rate the yield of retail cuts.

“These dramatic improvements in carcass yield and composition were achieved without adversely affecting

Left: 12th rib view of an untreated “control” lamb carcass - longissimus muscles and subcutaneous fat.
Right: 12th rib view of treated lamb carcass. Note larger longissimus muscle and smaller subcutaneous fat thickness.
average daily gain or feed-to-gain ratios in any treatment group," said Beermann. In fact, Beermann explained that there was a trend toward improved feed-to-gain ratios in both experiments. This means the animals ate slightly less feed and gained the same amount of weight observed in Dorset lambs without administration of cimaterol.

Beermann said, "Our research is especially significant since it illustrates that genetic engineering and embryo splitting and transfer aren't the only ways of improving food production. This is a classic example that understanding metabolism at the cellular level is just as important as reproductive factors."

By administering cimaterol, acute, immediate changes in an animal can be made, whereas defining applications for genetic engineering will take more time. The hormone would only be administered to slaughter-bound animals thus not upsetting normal breeding patterns. In this way, meat producers could utilize both genetic selection to produce animals with fast growth rates from smaller females which require less food and then enhance productivity with the B-agonist compound.

If the compound has no detrimental effects on meat and the FDA approves use of cimaterol, its impact on the meat industry would be visible from the farm all the way to the grocery store. Because it decreases the feeding period by five to six weeks and yields the same end product, cimaterol could reduce the overall cost at the market. At the same time, the reduction of fat improves nutrient composition of the carcass and meat cuts. Consequently, Beermann's research could result in leaner, less expensive meat that lamb chop lovers and others will appreciate.
An Historic Blend: The Robison York State Herb Garden

What do roses, garlic and scarlet pimpernel have in common?

According to one broad definition of an herb as a plant used as food, flavoring or medicine, or that is valued for its historic significance, they can all be considered herbs, and they are all found in the Robison York State Herb Garden at the Cornell Plantations.

Many people may think herbs are something to be sprinkled on salads or added to tomato sauce. This garden dispels those narrow views and reminds its visitors of the important part herbs have played in history.

According to An Herb Garden Companion, a guide to the Robison York State Herb Garden written by Audrey O’Connor and Mary Hirshfeld, herbs have been very important in history; a study of them will lead into many cultures and across many activities such as medicine, cooking, religion and romance. For example, the book reveals that a tea made of chamomile was once used to cure indigestion, and zinnias denoted thoughts of absent friends when tucked into an herbal bouquet called a tussie-mussie.

The herb garden, funded by Ellis H. Robison '18, as a tribute to his wife, Doris Burgess Robison, has fifteen different beds that contain herbs classified according to their use. In the bed reserved for “Herbs of the Ancients,” grows garlic. Garden visitors can discover from An Herb Garden Companion that garlic was thought to give strength, and garlic cloves were a part of the food rations of Roman and Egyptian soldiers, sailors and laborers. Scarlet Pimpernel grows in the “Herbs in Literature” area, for it was made famous in the book by that title, written by Baroness Orczy. This plant was also called “Poor-man’s-weather-glass” because its flowers would close at the approach of a storm.

Planning for this one-acre garden began in 1964, and it was dedicated and opened to the public in 1974. Most of the building materials for the garden came from New York State. A great deal of research on herbs was necessary before anything could be planted, since herbs from Asia, Africa, Europe and North America growth in this garden. According to Mary Hirshfeld, Curator at the Plantations, the book An Herb Garden Companion contains lists of herbs that have been researched as being appropriate for each of the 15 theme beds that will grow in this climate. On these lists are certain herbs that are always planted, and others that the gardener may choose for additional variety and interest. Sometimes it is hard to predict what will be planted right up until the time seeds are started in the greenhouse. “The Plantations orders its herb seeds from commercial seed catalogs and receives seed from other botanical gardens,” said Diane Miske, Plantations Gardener in charge of the herb garden. “But what you order and what you get may be two different things—the catalogs aren’t always right. For example, in the bed called “Herbs of the Settlers,” we try to grow the same plant varieties or cultivars (plant varieties that have been produced only through cultivation) as were used in 18th and 19th century gardens; we use descriptions, drawings and paintings to identify the herbs, and if the modern cultivar differs from the one used 100 or 150 years ago, it is not planted.”

Once the herbs are planted, they are not generally used for foods, medicines or herbal products as they might be in other modern-day household herb gardens. “The plants are not harvested in this garden because this is primarily for teaching, where people come to learn about herbs, eat lunch in the courtyard, or take a guided tour through the garden,” said Raylene Gardner, Education Coordinator at the Plantations. Gardner also coordinates activities focused around herbs such as workshops and symposiums on medicinal herbs, designing herb gardens, or planting herbs. Last year, the Plantations held an “Herb Day” at which almost 400 people heard talks on herbs, sampled herb cookies and had the opportunity
to buy herbal products that resembled those used long ago.

Some of the products that are decorations now, such as bundles of fragrant herbs, potpourris, and tussie-mussies, once had very important uses. Bundles of herbs were hung as deodorizers in homes that were more crowded and less sanitary than today's quarters. Potpourris, mixtures of dried, fragrant herbs, were tied into little cloth sacks and hung in closets to keep clothes smelling clean. According to An Herb Garden Companion, tussie-mussies, containing rue, rosemary or lavender, were originally recommended by physicians to be held in front of the nose to ward off sickness in the germ-ridden streets of 15th-century London. During the Victorian age, these nosegays became a part of the language of flowers: a way to express oneself in romantic terms without seeming too forward. Each herb took on its own special meaning, and when combined with other herbs, a whole message could be sent without writing a single word. According to Josephine Gray in the Autumn 1974 issue of The Herb Grower Magazine, some flowers had two different meanings, so little flower dictionaries were written to keep meanings straight. In one dictionary, lavendar meant love and strength of heart; in another, distrust; and in another, luck. Today, tussie-mussies can be made and given to others with a card attached giving the meaning of each herb, just so that misinterpretations will be avoided!

The Plantations Gift Shop sells most of these herbal products as well as books on herb gardening, according to Lynn Wellenstein, Gift Shop Manager. Some of the items sold in the shop are made from a few of the herbs out of the Robison York State Herb Garden. These are harvested by local group called the Auraca Herbarists who raise funds to improve the garden. In May, 1980, they donated a sculpture by Elfriede Abbe '40, entitled the "Yarb Woman." ("Yarb" is an early English pronunciation of "herb.") She embodies the spirit of herb gatherers everywhere.

The Robison York State Herb Garden combines herbs of the past and cultivation methods of the present all within its split-rail boundaries. The paths and raised beds invite close investigation of the feel and smell of the herbs, and the native stone benches are an excellent place to take a rest and contemplate the part herbs have played in history.
A Sporting Proposition

by Jan Alane Wysocki '85

Cornell Trustees have approved a campaign to raise funds for the Athletic Master Plan. Director of Athletics, Laing Kennedy '63, states, "The project will provide a first-class program to fulfill the needs of a community of 25,000 people. The facilities were constructed at a time when the population was approximately 11,000. Since that time the whole program has expanded—intramurals from 11,000 participants to 33,000 and physical education to over 8,300—plus the addition of many more intercollegiate teams."

This master plan will renovate the athletic facilities on campus. The existing facilities are in need of repair. Phases one and two, the components of this project, will bring the facilities up-to-date, meeting the needs of the community.

Phase one of the plan has been approved by the Board of Trustees, and construction is expected to begin by mid-1986. The land-use plans of phase one include construction of new facilities as well as renovation of existing ones. The major project areas of this phase include: constructing a new multi-purpose field house; renovating Barton Hall and Schoellkopf Stadium; expanding the squash and tennis facilities; and improving Alumni Fields.

What has been approved is strictly a land-use plan, not actual building designs. A major component of phase one is construction of the new multi-purpose field house. This field house will be located east of Lynah Rink, and it will house an indoor track for team and recreational use. This new track will replace the track now in Barton Hall. The infield of the track will contain an artificial-turf practice field. The men's and women's field teams will be able to use the field house during early spring training. It will provide much-needed facilities for physical education, recreation and intramurals. Support facilities, such as locker rooms, rest rooms, offices, and conference rooms, are also going to be constructed in the facility. Seating capacity of the structure will be approximately 2000.

Another part of the phase is renovating Barton Hall. The indoor track will be removed from the hall and Barton will then be sub-divided for basketball and recreational use. One end will be for team practice and the other end for intramurals, recreation, and physical education. Movable curtains, constructed to enable the area to be sectioned off for different events, will allow for transformation into a convocation center to seat up to 10,000. The ROTC program will be relocated so that space can be more efficiently used.

Structural renovation of Schoellkopf Stadium will be included in phase one. A new press box will be constructed and the Crescent, west stands and restrooms will be renovated. There will also be improvements made on the lighting.

The plans also call for the expansion of the tennis and squash facilities on campus. A lobby is planned to connect Grumman squash courts and the new tennis facility, thus providing a new entrance. This new construction will not disturb Hoy Field, the baseball diamond.

The final component is improving Alumni Fields. The fields will be upgraded and they will gain a new outdoor track.

Phase two of the needs plan includes improvements such as a new swimming building, two new artificial fields on Alumni fields and renovation of Teagle Hall, Lynah Rink and Oxley Polo Arena.

Athletic director Kennedy says, "It is a bold, aggressive plan to refurbish the athletic program to move us to a position of excellence with our athletic facilities in the Ivy League." Besides improving the balance within the many components of athletics at Cornell, the athletic department wants to maintain the pleasing aesthetics of the present facilities. According to Kennedy, "Schoellkopf Stadium (the Crescent) is one of the finest architectural structures on campus, as is Barton Hall, and our objective is to preserve and update them." Kennedy hopes the project will be completed by late 1987 if designs, funds and construction plans are not held up. Kennedy concludes, "I'm optimistic."
A MESSAGE FROM YOUR PRESIDENT

As I write this message, I recall a day spent this past week with John Sterling, Director of Alumni Affairs. We traveled east to meet with District Directors in Cooperstown to initiate membership campaigns throughout New York's Leatherstocking country.

My mind goes beyond the rolling hills, narrow valleys, and small lakes to the broader expanse of plains to the West, the rich soils of our Canadian neighbors to the North, the rolling plateau regions to the South, and the concrete and blacktop of cities and villages scattered throughout. As great diversity is evidenced throughout the physical landscapes of the state, so is great diversity evident in the 33,000 alumni who call the College of Agriculture and Life Sciences their Alma Mater.

Our goal is to draw the rich resource of alumni together into a powerful support group that will uphold our College. With the encouragement and backing of the College Administration, your Board of Directors has initiated a grass roots effort to recruit paid memberships in the Alumni Association.

In New York State, District Directors will recruit six to ten area captains who will in turn recruit six to ten local contact persons, each of whom will contact alumni to join or renew memberships. Out-of-state coordinators will be appointed to carry out a similar network of contacts.

The Alumni Office will coordinate efforts by identifying and training area captains, putting together campaign kits with information materials, and assisting with kick-off dinners and other major campaign functions.

This will be the most intense membership drive since the establishment of the Alumni Association 75 years ago. Our goal remains much the same: "to promote fellowship among all students, past and present, and to advance the interests of the College of Agriculture."

Won't you join us in strengthening our Alumni Association?

Sincerely yours,

Judy Riehlman '80
President

The purpose of this publication is to recognize and report on people and activities of the Alumni Association. Contributions from alumni, faculty, and students are welcome and should be sent to CALS Alumni Office, 242 Roberts Hall.
### Executive Committee

**President**  
Judith Riehlman '80

**First Vice President**  
Jerry Linsner '58

**Secretary**  
Shirley Norton '52

**Treasurer**  
George Conneman '52

**Immediate Past President**  
Robert Bitz '52

**Members-at-Large**  
George Allen '73  
Jane Adams Wait '43  
John McGurk '44  
Theodore Markham '46

**Executive Director**  
John Sterling '59

#### Districts and Counties

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<tr>
<th>District</th>
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<tr>
<td>1</td>
<td>Nassau, Suffolk</td>
<td>Frank Wolff '53</td>
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<td>Richmond, Kings, Queens</td>
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<td>Jim MacKerer '70</td>
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<td>Chautauqua, Cattaraugus</td>
<td>Jerry Linsner '58</td>
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<td>22</td>
<td>New England States</td>
<td>Jane Longley-Cook '69</td>
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<td>23</td>
<td>Canada</td>
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<td>Sandi Leigh '84</td>
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Reaching Out to Alumni

Linda W. Schempp '85

This year marks the onset of a special membership campaign by our District Directors. A first-rate institution like the College of Agriculture and Life Sciences at Cornell needs the ongoing support of its alumni through the organized activities of its Alumni Association. At the time of this writing, thirteen of our districts have come forward with special proposals for reaching both members and potential members in their areas. As these efforts pick up momentum, other districts will undoubtedly begin planning activities to reach their constituents, as well.

According to Membership Committee chair Jane Adams Wait '43, the intended membership is 4,000 throughout New York State for 1985. This amounts to an approximate doubling of our present membership and is seen as a realistic figure. "The emphasis will be on personal contact," says Jane, "as a better means of reaching out to people." In each district, lifetime members will be involved in contacting other members, as well as nonmembers.

Those districts already gearing up with proposed plans include: District numbers: 1- Nassau and Suffolk Counties; 5-Orange, Sullivan and Ulster; 6-Dutchess, Columbia and Greene; 8-Schoharie, Montgomery and Fulton; 9-Saratoga, Washington and Warren; 13-Chenango, Otsego and Delaware; 14-Tompkins, Cortland, Tioga and Broome; 15-Cayuga, Onondaga, Oswego and Seneca; 17-Yates, Schuyler and Chemung; 18-Allegany and Steuben; 19-Orleans, Genesee, Wyoming and Livingston; 20-Niagara and Erie; 22- New England States, and a special effort to be conducted in the State of Florida.

Leadership members should be organized by mid-April, and will be reaching out to their fellow alumni in the next two to three months. They'll be starting what will be an ongoing campaign, and by the time of this printing, many of you will have been contacted already.

At our board meeting banquet in February, alumni reached out to undergraduate student leaders, many of whom will soon be taking advantage of a two-year free membership in the Association as they graduate. Jane Adams Wait sees the connection with students as "a wonderful, symbiotic relationship." Through contacts like these, we can learn better how to serve our present students/future alumni.

And through contacts being made between alumni in this membership campaign, we can learn how better to serve our present alumni and involve all of you in the excitement and vitality of our organization and our College.

Jane Adams Wait '43 talks with Ag student and Jane Longley-Cook '69.
On February 8—a particularly wintry Friday night in Ithaca—directors and students turned out in particularly fine form at Ithaca’s Ramada Inn. Board members, in town for their regular winter meeting, welcomed representatives of student organizations. This is the second year of the director-student dinner meeting and presents a unique opportunity for directors to learn about student organizations, as well as for students to learn about the Association and how it can be of service to their groups.

Bob Perl ’86 and Michele Coleman ’85, our student Board members, introduced the students who presented updates on their respective organizations. Jim Carmichael ’86 represented the Cornell Pre-vet Society, a group designed to promote friendship among pre-vet students. The Pre-vets had a dog wash coming up on March 23. Andres Collazo ’85 was present for the Cornell Natural History Society. Zahurul Haque spoke for the Cornell Bangladesh Association, a group devoted mainly to cultural exchange. The 80 members of the American Association of Bovine Practitioners were represented by William Johnson ’86. The Bovine Practitioners hold a lecture series to help keep up to date on bovine medicine.

Donna Kline (Dept. of Poultry and Avian Science) is the membership chair of Graduate Women in Science, an organization open to women in all scientific fields. Meetings and seminars are held to familiarize members with the various disciplines and to promote leadership among women in science.

Caroline Marrero reported for the Cornell Livestock Association, a group open to any student in any college. Their livestock show (April 20 this year) offered participants a chance to gain experience in preparing and showing animals and brought students from various parts of the university together.

The Agronomy Graduate Student Association fosters friendship and support to its members and educates the community to the study of Agronomy, says Barbara Mehall. AGSA introduces new grad students to the department, is holding an international dinner in the Spring, and is working on plans for a possible symposium.

Debbie Nero is a member of the Graduate Student Advisory Committee, a new organization designed to facilitate communication between all grad students and the University. On April 18-19, they hosted the Northeast Conference on the "Utilization of Science in the ’80s."

Anita Oberbauer says the Animal Science Graduate Student Association welcomes incoming grad students, sponsors social activities for the Department, and participates in the Livestock Show.
According to Jill Parker, PAX Ithaca, an organization of returned Peace Corps volunteers, has 60 members at Cornell and 200 in the Ithaca area. They sponsor educational activities and task forces as well as printed materials and slide shows on human rights. Their relay run around Cayuga Lake has become an Ithaca tradition.

Tina Rovito '85 of Hortus Forum reported on the student association of the Department of Floriculture and Ornamental Horticulture. Activities include visits to flower shows and botanical gardens, and engaging practitioners to talk with them as prospective employees. Their weekly flower sale is familiar to anyone passing through the basement of Plant Science on Friday afternoons, and each year Hortus Forum helps the College celebrate Arbor Day by planting a tree on the campus.

Polly Sisson '86 reported for Round-Up Club, the oldest club on campus. Members work with heifers at the research farm for the Livestock Show and attend national meetings. Round-Up Club introduces students to professionals in the industry and gives them hands-on experience with livestock.

The Graduate Student Association of Natural Resources was represented by Debbie Van Ryn. They hold a weekly seminar series, as well as a yearly symposium in which both faculty and grads present their work to one another. An annual grad-fac weekend retreat and various department get-togethers are also regular events.

Margie Coffin '85 reported for Agronomy Club which was holding a conference that weekend for all such clubs in the Northeast. Agronomy's soil judging team took first place in the regional competition this year, and took part in the national competition in Denver in April. Members attend workshops and conferences of parent chapters in SCS and ASA to keep active and up to date in their field.

Cornell Collegiate 4-H Club was represented by Yvonne Griffin. Collegiate 4-H helps students become aware of what is going on in Cooperative Extension. At their alumni reception, students had a chance to talk with agents and others working in the field and to learn about careers in Extension.

Following the introductions of student organizations, Glenn MacMillen, Director of Development, introduced our new Executive Director, John Sterling '59. John comes to us from a career in Cooperative Extension working in the 4-H program area. He paid tribute to Cornell's excellence and called for a closer association between the College and its alumni. "We need to be out in the community in order to relate the interests of alumni in their communities to Cornell which helped us all get where we are."

Acting Dean Ken Wing '58 addressed students and directors, saying that "Cornellians make things happen--you have to run to catch up with them." Dean Wing provided an update on the hiring of new faculty, building construction and renovation, and the new pedestrian mall to be located in front of Bailey Hall. He reported on the new $30 million-plus biotechnology building to be located on Lower Alumni Field, and future plans for library-dormitory linked computers.

To quote our Acting Dean, "Through all the changes, there's a theme of excitement, and quality, and 'what's next'? And we're all a part of it".

Students and alumni present on that wintry evening in Ithaca will carry on a tradition of reaching out through their respective groups, as well as individually--reaching more students, present and prospective, and more alumni, now and in the future.
AG DAY ’85 WELCOMES DON BAY ’55

"Implications of the 1985 Farm Bill for the New York Dairy Industry"

Linda W. Schempp ’85

On March 24, Sunday of our Ag Day weekend celebration, brunch at the Red Barn was sponsored by AgPAC (the ag students’ Positive Action Council) with food prepared by the brothers of Alpha Zeta fraternity. A highlight of the brunch and the Ag Day celebration was an address by Don Bay ’55, General Manager of Upstate Milk Cooperative, Inc., on the “Implications of the 1985 Farm Bill for the New York Dairy Industry.”

Mr. Bay, a nationally acknowledged expert in the areas of dairy policy and dairy judging, grew up on a dairy farm in New York State. His experience encompasses farming, banking, and managing a milk cooperative. He has been recognized for his service to New York’s 4-H program through receipt of Cooperative Extension’s “Award of Merit” and its first presentation of the “Partners in 4-H Award.” On the federal level, he has served on committees of the National Milk Producers’ Federation, the nation’s principal lobbying group for dairy producers, and the National Council of Farmer Cooperatives, an organization representing cooperatives handling virtually every agricultural commodity in the states.

Bay said, “the economic, social and psychological conditions of the ’30s helped create the impetus for farm programs which had their origins in that time.” With the intervention of World War II, the demand for most goods and services skyrocketed, and our Gross National Product increased tenfold. Following the War, demand slacked off and we returned to government programs based on stability of agriculture. However, the war “had a lasting and profound impact on the U.S. economy, which has never been and never will be the same again.”

Since that time, the combination of inflation and increased fixed costs provided a powerful incentive to produce more milk. Price supports provided an additional incentive until recently. And these factors, together with “absolutely magnificent technology,” provided an “unbeatable recipe for increased production,” in turn creating large surpluses.

Where in the past we had an emphasis on income stability and even enhancement throughout the agricultural price support system, we now have an administration that favors a market-oriented approach with minimal, if any, government intervention.

So, what will happen to the dairy industry? Bay believes that Congress will feel the administration’s program is too harsh, despite the fact that it takes only three percent of the population to provide food and fiber for all of us. Bay expects a more moderate program, to involve price supports based on the amount likely to be purchased by Commodity Credit Corporation.

All in all, we’re in an exciting time—we’re exploring ultrafiltration technology in cheese manufacture and the use of bovine growth hormone, which could substantially increase milk production per cow, reduce the number of dairy cows in the U.S., and reduce sharply the sales volume of the artificial insemination industry.

Don Bay’s perception is that dairy will endure in the Northeast and other areas of the country where costs are competitive. Nevertheless, he says, “We’re on the threshold of a technological and production revolution.”
Our Student Alumni Directors
Linda W. Schempp '85

The CALS Alumni Association is fortunate, indeed, to have the services and insights of two outstanding undergraduates in the College. Michele Coleman '85 and Bob Perl '86 both serve as student representatives to the Board of Directors.

This is Michele's second year as a member of the Board. She was invited to become a student representative as a result of her work with the Ag Ambassadors, having served as director of Alumni Affairs on their Steering Committee. Michele has written a brochure which is given to graduating seniors inviting them to join the Association, and has spoken at numerous local and regional get-togethers to inform alumni of what's going on with students at the College.

Bob Perl became a student director almost a year ago. He worked on the Fall '84 Roundup, planning and coordinating labor for the Saturday activities, and was instrumental in soliciting student organizations to be represented at Roundup.

Both Michele and Bob see their role as student directors to be a liaison between the Alumni Association and the student body. They help the Association to increase its visibility among students through planning activities such as the student organizations directors dinner in the winter and senior barbecue at graduation time. Many students don't realize that the College has its own alumni organization, what its activities are, and what it does and can do for students. So part of the student director's job is to invent new ways to increase student awareness of the Alumni Association.

And what do our student directors do besides serve as student/alumni liaisons?

Michele, a resident of Smithtown of Long Island, has been active in Ag Ambassadors, worked with the Cornell Development Office, and has served as President of the Prospect of Whitby living cooperative. She assisted as a TA in the Human Sexuality course last year, and currently is a familiar and friendly face behind the counter in Warren Hall's Alfalfa Room.

Bob, who grew up on a dairy farm in western New York, is an active member of Alpha Zeta fraternity, serving as its Chancellor. He is a member of Cornell's student chapter of the American Society of Agricultural Engineers and is active in ALS Ambassadors.

As for what lies ahead, Bob will be a student director again next year. He plans to work in his field (Agricultural Engineering) after graduation, and eventually will return to school for an advanced degree. Michele says she'll definitely remain a member of the Association, although she won't be as active as she presently is for a while, as she'll be going on to law school in the Fall.

Because of their somewhat different backgrounds, our student directors exemplify the diversity of the Ag College at Cornell. They also help to break down what Michele refers to as the "pre-formed stereotypes" of farming and metropolitan areas of the State. While it's true that there are differences between these areas, it's equally true that people are not that different. For sure, as Cornellians and as "Aggies," we all share a common bond and a common responsibility—one in which our student representatives give a very big helping hand to all of our alumni.

Thanks, Michele and Bob!
From Your Executive Director

CALS Alumni Association is embarking upon major plans to make it one of the biggest and strongest agriculture college alumni associations in the country.

We began the building process immediately after the February 8th and 9th Board of Directors meeting when the Planning Committee and the Membership Committee both voiced strong concern for planning memberships and presented plans for future alumni development.

The first phase is to strengthen the role of District Director in the membership recruitment process. Accordingly, Brenda Bleck and I, using guidelines developed and approved by President Riehlman '80 and membership chairs Jane Adams Wait '43, and Hans Kunze '82, prepared a temporary membership campaign plan and kit. By the time this article reaches you, I should have personally discussed the campaign kit with every district director in New York State, two of our Regional Directors, and two State Coordinators. District membership campaigns should be well under way towards the "4,000 in '85" goal, planned to be reached by June.

The second phase will be a firming up of a membership campaign procedure to be used by District Directors on an annual basis. At the same time, the Alumni Association might consider the Association's structure to assure the probability for program and member growth, alumni involvement and leadership.

The third phase will necessitate a need to look at programs of the Alumni Association both at Cornell and local districts. Our Alumni Association leadership will need to look at the needs of alumni, district leadership and organizations as they emerge, and the programs of other college Alumni Associations to make wise program choices. Phases two and three will likely begin the summer of 1985.

The Alumni Association represents a furtherance of excellence in education, where we all can continue our proud affiliation and leadership. Any organization which sets its goal as twice its present membership at a time of a declining trend, has very strong and committed leadership. I'm glad to be a part of that team.

Sincerely,

John C. Sterling

MAKE YOUR NOMINATION NOW FOR OUTSTANDING ALUMNI OF 1985!

Recognizing the increasing career diversity of the College's graduates, our guidelines for choosing recipients of the Outstanding Alumni Award need to cover several criteria. Candidates must satisfy at least one of the following:

- Have been actively involved, worked for, and demonstrated leadership abilities in the College of Agriculture and Life Sciences activities; involvement should span at least five years.

- Have achieved "recognized success" in their business, professions, or other vocational endeavors; this is defined as performing in a major leadership role in the chosen endeavor, such as agriculture.

- Have achieved "recognized success" in avocational activities, other than Cornell: this would mean having made a significant contribution to the betterment of society through involvement in community, public school systems, charitable organizations, and other humanitarian undertakings.

Any candidate not qualifying fully under the first two criteria but whose present activity under each or both of these criteria is commendable, must show some CALS activity in order to be considered. However, in these instances, involvement need not span a five-year period.

Please submit your nomination by July 1, 1985 to the CALS Alumni Office, 242 Roberts Hall, Cornell University, Ithaca, NY 14853-5901. Please limit your narrative to one sheet of paper, front and back.

UPCOMING EVENTS

Reunion Breakfast 1985
Saturday morning, June 15, at the Sheraton Inn, Ithaca.

Make reservations in writing or phone the CALS Alumni Office (607-256-7651). $8 per person. Prepayment is necessary to hold your reservation.

Empire Farm Days
See our part of the CALS/Cornell exhibit, along with those of other SUNY units, machinery and equipment demonstrations.

Tues.-Thurs., August 6-8, at Brock Acres, Holcomb (Whalen Road and County Road 30).

"Round-Up '85"
Friday and Saturday, Sept. 27-28. Outstanding Alumni Awards will be presented at the Friday night banquet, and an alumni speaker will be featured Saturday morning in Bailey Hall. Cornell faces Colgate in the season opener at Schoellkopf Field. See you there!
Practical Sketches

A scenic span of the Cornell campus and surrounding countryside can be viewed from many buildings at Cornell University. To some, it may only be a pleasant view; to others, it may serve as an inspiration. Such is the case with students and faculty in the art studios on the fifth floor of Mann Library.

The drawing and painting courses taught in the Department of Floriculture and Ornamental Horticulture provide a unique and beneficial experience to students in any school or college at Cornell. Courses in nature drawing, freehand drawing, scientific illustration, watercolor and advanced drawing are taught by R. Jack Lambert '50 and Ann Elliot, accommodating about 100 students per semester.

While other classes may be conducted in the same lecture room day in and day out, these art courses often move outdoors to provide students with new subjects to draw and a change of pace from the studio.

"Students often need a change in their coursework to provide a different outlook on things," Lambert said. Through drawing and painting classes, "Students learn to express themselves graphically. People don't often have the chance to develop that skill. It's a rewarding and useful tool to gain and utilize throughout the rest of life. It's not the type of information one forgets in a year," said Lambert.

The classes function as a service to students who need experience and guidance in artwork for their major subject matter. "Professors will often recommend drawing classes to one of their graduate students. For example, an entomology student might enroll in a drawing class to learn the techniques used in drawing beetles," said Lambert. Also, many of Ithaca's scientific illustrators have taken Elliot's scientific illustration class to improve their skills. "Learning how to design a manual and then getting people to read it is fantastic," said Elliot.

Many architecture and landscape architecture students use pen and ink and colored pencils in drafting and design. There is a close tie between art courses and other courses in the University. Students can gain additional proficiency, technique and skill through drawing classes.

Students have been appreciating the benefits of Freehand Drawing classes since the College of Agriculture was founded. In the recent past, art classes have been receiving more exposure throughout the Cornell community, and they are now deluged with students during registration.

"It's extremely encouraging to see the enthusiasm that the courses have generated," said Elliot. Both instructors enjoy their work immensely. "It's nice to get paid for something I'd be doing anyway," said Lambert. "I enjoy being around students who enjoy art and who learn here how to apply drawing techniques to other areas of their lives." Elliot conveyed similar feelings. "Art is enormously enjoyable because you can use your own ideas to create. And I like bringing that out of my students." Both agree that the combination of enthusiastic instructors and students eager to learn is a perfect mix for a rewarding and beneficial experience in art at Cornell.

by Laurel A. Shuster '86
Children traverse streams and explore gorges; canoe and learn how to plan bike trips; discover whether weeds are either friends or foes; learn fire safety and how to plant a garden. Sound like a summer camp? Possibly. But actually, kids can choose to enjoy many of the above each spring when participating in the 4-H Natural Resources Appreciation Program (NRAP).

For three days every May since 1977, fourth, fifth and sixth graders, from ten or more Tompkins County schools, are put in touch with nature through innovative lessons featured by NRAP. Ecological concepts are stressed in lessons specifically designed to include hands-on learning experiences. Students are encouraged not only to be more aware of their environment, but to actively assume greater responsibility in maintaining their world.

Coordinated by the Tompkins County 4-H NRAP Program Development Committee in cooperation with various area organizations, the program receives a great deal of support from Cornell University. As New York's land grant university, Cornell is the statewide resource body for 4-H and Cooperative Extension. The youth component of Cooperative Extension, 4-H receives many of its materials and visual aids from the University and makes use of its different facilities.

A large number of NRAP's volunteers are recruited from Cornell's faculty and student population, but members from the community offer to serve as instructors as well.

A sense of sharing between adults and children was emphasized by Tony Ingraham, park naturalist and assistant regional recreation coordinator for the Finger Lakes State Park Region. "An important part of the program is that there are adults who have a genuine enthusiasm about natural resources and have a desire to communicate that to young people. They serve as role models," he said.

Joann Gruttadaurio, Co-Chair of the NRAP Program Development Committee, and Cooperative Extension associate in the Department of Floriculture and Ornamental Horticulture, discussed the main goals of NRAP.

"The program seeks to provide the opportunity for young people to have an enjoyable learning experience with nature. Students are encouraged to open their senses and feel more at home and comfortable in their natural surroundings." It is a chance for new teaching and learning experiences, for both students and teachers, she said, where students have a chance to interact with classmates and children from other schools. "All of the lessons try to communicate positive values about the human use and management of natural resources," she explained. "If they can learn that in fourth, fifth and sixth grade, they'll be more responsible as they get older."

Sue Jones, 4-H program assistant for Tompkins County, explained what differentiated NRAP from other school outings which are usually less structured. "NRAP has three 50 minute lessons where we try to have hands-on experiences using natural resources"
NRAP stresses hands-on learning through outdoor lessons such as this one by instructor Joann Gruttadaurio, right.

Instructor, Shari McCarty, helps students learn about animal adaptations, inset.

to their fullest. Very often, the children make something to bring home.’

The planning for NRAP begins six to eight months before the program happens, Gruttadaurio said. “Every year it’s different because the committee membership changes. Every year we try to tap new talent and

seven locations where NRAP will take place this May 10th, 13th and 15th. The program has made use of the University’s agricultural buildings, test gardens, greenhouses and natural resources through the years. “We’ve

Life Sciences, has been a NRAP volunteer for the past two years. For her NRAP lesson, she used her own slides and managed to borrow stuffed birds from the College’s taxidermy collections. The children were thrilled. “They wanted to know if they were endangered species, then why were they dead, and how did I get them?” she recalled. “A lot of them were really not convinced that a species was extinct. They’d say, ‘Well, how do we know that there’s not just one more left in the forest?’”

She feels positive about NRAP. “I think it’s a valuable program because, for many kids, it’s the only exposure they have to environmental education and to some subjects that are not taught in school. My program was designed so that the teacher could pick up where I left off, either by exercise sheets I might have handed out or by letting the children write letters to protection agencies.”

Indeed, the jump on environmental education provided by NRAP may not only get today’s children interested in nature, but it will make them more aware of the delicate balance between humans and their natural environment.

resources. But most importantly, we always try to reach more kids.” Last year, over 1000 students were involved in NRAP.

What did children like best after participating in NRAP? “The walk around the lake, smelling the trees, the hike, and making something to bring home,” were among those responses listed on evaluation sheets. Students highlighted the history of Taughannock Falls, the smell of a red trillium, the different types of rocks, and the idea of looking at living things and not picking them, as several of the things they learned.

Cornell, as in the past, is one of been fortunate,” Gruttadaurio said, referring to the assistance various departments have offered to the program. “Agronomy has helped us, for example. In one of our programs, they actually plowed a field so the kids could have a chance to plant small seedlings.” The ninety seedlings were donated by the Department of Floriculture and Ornamental Horticulture.

Julie Worth, a science and environmental education graduate student in the College of Agriculture and Tompkins county school districts participate in NRAP activities.
The idea of two brothers running both a management company and a trucking company does not sound so strange, except when you begin to consider that they are identical twins, full-time students in the New York State College of Agriculture and Life Sciences at Cornell University and that they have been in the business since high school.

Geoff and Greg Grace, both juniors majoring in agricultural engineering, have been running Jac-Els Dairies since 1980. The original farm, located in South Kortright, New York, has been in the family since 1969 when their father bought it as a tax shelter; in 1980 they enlarged their acreage by buying their neighbor’s property. Because of other commitments, their father was no longer interested in managing the farm, so Geoff and Greg decided to take over the responsibility.

Since the boys attended high school in Vermont, they would travel to the farm every month or so to check on it. Now that they are at Cornell, they can travel there almost every other weekend.

Once they began, there was no stopping them. In 1981, they became the first farmers in Delaware County to use a personal computer as part of their management techniques. “Back then, there was no software available for our purposes, so, in our senior year of high school, we decided to write our own programs,” stated Geoff. He went on to say that the programs have since been updated so that they can compute many of their statistics twice as often as the other farmers in the area. They now use some commercial software packages as well. The initial investment in a computer was a major decision, but, as Greg said, “It paid for itself in a year and a half. I wish we had done it sooner.”

The computer was the first step in the direction of expansion. The second step came with the increase of cattle and tillable land. When the Graces began running Jac-Els Dairies, they had 35 milking cows and 60 tillable acres of land. Presently, they have 140 milking cows (210 cattle total) and 275 tillable acres of land; by the end of this summer they intend to increase by 35 more acres and add on an additional 60 milking cows. “In the past five years we have focused on growth and probably will continue to do so in the future,” commented Geoff.

Not only have they increased in size, but they have increased the amount of production by experimenting
with different types of feed. According to Greg, they are also planning to add on a third barn this summer where they will perform embryo transplants so that they can improve the quality of their cattle stock as well.

When these two brothers are not planning their new expansions for the farm, they are usually working out their plans for the week's trucking shipments. Geoff and Greg Grace also run a trucking company called Grace-Agco. It is an offshoot of Jac-Els Dairies; they concern themselves with the hauling of straw to racetracks and horse farms in New Jersey and Pennsylvania, shavings to be used in barns and hay to be used at their own farm. They also ship from Canada. Said Greg, "We can receive approximately a twenty percent discount by shipping certain supplies in from Canada because of the exchange rate."

This sounds like a great amount of work for two people, but they have divided up the responsibilities; Greg is in charge of the cattle and the barns, while Geoff is in charge of the machinery and the feed. Since the Graces are considered absentee managers of the Jac-Els Dairies, they have several people on the premises full-time; they only participate in the management aspects of the business while attending school. But this still takes one to two hours of their time every day, as well as several hours every weekend. When asked how they balance their schoolwork with their companies, they both responded with a laugh. "We try, but it is very hard. It is even harder because we live in a fraternity, which also takes up a good chunk of our time."

But the hard work pays off. Most of the profits they have earned have been put back into the companies, which is why they are going to be able to expand this coming summer. The brothers are looking to add on an additional Grace-Agco tractor-trailer this summer so that they can double their trucking capacity.

Why do they do all of this hard work when they should be enjoying their college years? "It's fun, and we enjoy it," responded Greg.

Right now they are not sure what their plans are after graduation. Business school is a possibility, but, according to Geoff, they change their minds every week. They have been training people during the summers, in case they decide not to continue in the business after graduation. But whatever they decide to do, it will probably be together, and if the past is any indication of the future, they will be very successful.

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Greg Grace: Agriculture engineering student. These twins operate Jac-Els Dairies and Grace-Agco while attending school full-time.

by Amy Singer Underberg '86
This common plant, cultivated in flower gardens throughout North America, was once feared as the plant used by witches to summon the devil and coveted as a protector against werewolves. Highly toxic, it has claimed responsibility for the death of unsuspecting foragers who thought they were eating parsley, horseradish or turnip.

The killer? Garden monkshood, whose toxin is so deadly that in ancient history it was dubbed “queen mother of poisons.”

Today, the main danger from monkshood is not that it is eaten mistakenly, but that it is consumed, among other poisonous plants, by livestock. Most often, treatment of stricken animals is approached with the shot-in-the-dark method because of the difficulty in determining the nature of the poison and its corresponding cure.

Phytotoxicology, the study of poisoning by plants, is not well understood by the medical profession. According to John M. Kingsbury, professor of botany, emeritus, “Poisonings are inaccurately diagnosed, regularly under- or over-treated, and poorly investigated with regard to the underlying toxicology.”

Enter the Muenscher Garden of Poisonous Plants—the garden of the living death. Walter C. Muenscher, professor of botany at Cornell for 38 years, was one of the first to recognize the need for instructing veterinary students in identifying poisonous plants. In doing so, he gathered a number of specimens from the wild and planted them between Mann Library and the Plant Sciences building where they were maintained by Muenscher and his graduate students until his retirement in 1954.

The garden was recognized as an official collection in 1958 when a plaque, dedicated to Muenscher and designed by Elfriede Abbe, was presented, establishing the Walter C. Muenscher Poisonous Plants Garden. But, in 1962, building pressures forced either the relocation or the destruction of the garden. Kingsbury, then in charge of maintaining the garden, won the approval of the dean of the College of Veterinary Medicine to replant the garden in its current location, behind the then new James
Poisons Grow Here

by Mary Jaye Bruce '85

Poisonous Plants grow here...Rhododendron honey extracted by bees contains toxic resin. If eaten, it will cause ill effects in people.

Law Auditorium.

In this garden, students in "Poisonous Plants" learn to weed out the truth about plants from the myths, the facts from the folklore. According to Kingsbury, "Although the medical profession is much more interested in what plants do, physicians and veterinarians must also know something about the plants themselves in order to advise patients or clients effectively. Those who teach the subject need expertise in both aspects." And, indeed, an expert in both fields is a rare find.

Wrote Edward Ricciuti in The Devil's Garden, "Much of the difficulty experienced by physicians stems from the fact that the study of poisonous plants remains colored by myth and superstition...Little on the subject of use for physicians has been written since last century, mainly because the abundance of synthetic poisons produced since then has diverted the attention of toxicologists from botanical poisons."

For instance, white snakeroot ingested in moderate amounts by cattle produces "trembles," a disease which was passed on to humans through milk and was spread epidemically during colonial times. The real causes of the disease, thought at different times to stem from poison ivy, arsenic, bacteria and other "lower organisms," wasn't accepted until 150 years after its principal devastation.

Pokeweed lore provides another good example. This wild weed, espoused by Euell Gibbons in his book Stalking the Wild Asparagus as "probably the best known and most widely used vegetable in America," is capable of causing serious blood abnormalities if eaten and, in some cases, if absorbed through the skin.

Indeed, poisonous plants grow almost everywhere. Aside from the more obvious forms of toxic plants such as poison ivy and poison hemlock whose names give them away, there are some surprisingly common plants that can kill. Among these plants are the potato plant, kale, sorghum, onions and chives, tobacco and rhubarb. Common ornamental plants, such as wisteria, lily-of-the-valley, oleander, yew and rhododendron are poisonous to some animals, as are wild nightshade, mountain laurel, jack-in-the-pulpit and wild cherry, just to name a few.

Taken care of by Cornell Plantations since 1974, the garden serves as a teaching collection for veterinary students and physicians as well as for the enjoyment of the general public. It is an appropriate memorial to W.C. Muenscher, whose work at Cornell was geared mainly to dispelling the myths about poisonous plants and informing the public of their real dangers.

The ancient lore surrounding shamans,' magicians,' criminals' and witches' means of poisoning their enemies with plants is, though seemingly far out, based on the underlying truth that some plants are deadly. The garden reminds us to be aware of the potential dangers and to treat those plants with the respect they deserve.
A Class of

Fellows advisor, David Galton, counsels a Dairy Fellow.

Far above Cayuga's waters, Cornell students anxiously prepare to enter the job market. In their freshman year, they choose a major, and for the next four years they learn everything there is to know about their prospective career choice. They trudge to their 8 o'clock classes; they churn out weekly problem sets; they cram for prelims, mid-terms, and finals. But when it comes time for job interviews, what can they say about their actual job experience? Does working summers at McDonald's or lifeguarding at the local pool make the grade?

In today's job market, an Ivy League education is not a free ticket into big business, private industry or government. Employers are hiring qualified recruits who have noteworthy job experience.

The New York State College of Agriculture and Life Sciences is turning the tide on traditional college learning. Students, who in the past were bogged down with theory and definition, now have the opportunity to integrate knowledge gained in the classroom with on-the-job training.

The departments of agricultural economics and animal sciences are giving students hands-on experience in two academic areas: dairy farm management and farm finance. Dairy Farm Management and Farm Credit Fellows are two programs available to upperclass students who have expressed a sincere interest in pursuing a career in the agriculture industry.

The Farm Credit Fellows program is a comprehensive study of agricultural finance under the guidance of the Department of Agricultural Economics. It receives financial support from the Farm Credit Banks of Springfield, Massachusetts, an agricultural financial institution, which lends money through three divisions: Production Credit Associations, Federal Land Banks and Bank of Cooperatives.

In 1972, the College contacted Farm Credit in hopes of securing job placement for student interns. According to Fellows advisor, Professor Eddy LaDue, Farm Credit responded favorably, but wished to initiate a program that was more in line with their business, specifically, the personal contact and confidentiality characteristic of farm lending. Sitting down with their department colleagues, LaDue and Robert Smith, professor emeritus of farm finance, developed a program entitled Farm Credit Fellows.

"The objective of the program is to give students an exposure to agricultural finance that they couldn't get in a classroom setting," said LaDue. "It provides an opportunity for students with a strong interest in farm management and finance to gain a better understanding of the ag credit system."

Throughout the program year, students participate in apprenticeships, trips and discussion seminars. Highlights include a tour of the Farmer's Home Administration, a two-day trip to the Farm Credit Banks of Springfield, a week-long internship at a local Farm Credit Association and a mid-winter trip to New York City where Fellows tour Wall Street and the trading floors of the New York Stock and Commodity Exchanges. Come spring, the group sponsors speakers from a variety of agricultural specializations to discuss major farm issues.

"You don't lose anything by participating in the Fellows program," said Colleen Bulich '85, "you can only gain."

According to Bulich, being involved in the program at such a crucial time in the agricultural industry made the difference. Through Farm Credit loan and credit training, Fellows become more adept at understanding current arguments over price supports and debt problems. "I've been opened up and made so much more aware of the dilemmas of agriculture today," said Bulich. "I realize there are no
Experience

by Ann B. Noble '85

Students have the opportunity to experience four segments of the dairy industry including dairy research, government, cooperatives and hands-on experience with all aspects of herd management. To date, the class has traveled to the state capital to visit with area politicians and representatives from the New York State Department of Agriculture and Markets. They have toured various cooperatives such as the Dairy Herd Improvement Association, and they journeyed to nearby Syracuse to the Large Dairy Herd Conference held this spring. They have also visited numerous commercial farms and dairy merchandising operations throughout the state. But the Fellows program allows students to incorporate the technical aspects of dairying with actual field experience.

Fessenden, an animal science major, said he enjoys this first-hand experience “You get to see the inner workings of the entire industry. Working on a farm day to day, you can become very narrow minded . . . you simply don’t get the exposure.”

Farm Credit and Dairy Farm Fellows are two unique programs that are giving Cornell Students the competitive edge in the job market. Through visiting farm operations and speaking with professionals in the field, Fellows are able to gain new knowledge and establish contacts in the field. Professor Galton summed it up well . . . “Students must learn to keep up to date and know what’s going on around them if they are to be successful in the future. When they receive their diplomas, they should hit the pavement running.”

Student Dairy Fellow works with dairy cattle to gain hands-on experience.
Professor Dale Bauman experiments with cows to increase milk production.

Growing Hopes
for Food Production

The sight of thousands of starving children in Ethiopia that has entered our homes almost every evening for months has made us all sensitive to the seemingly insurmountable problem of world hunger. Somewhere, help must be found. In Cornell University's Animal Science Teaching and Research Center and around the world, work with growth hormone is being done that could help ease the plight of those who don't have enough to eat.

Here at Cornell, Dale E. Bauman, professor of nutritional biochemistry in the Department of Animal Sciences of the College of Agriculture and Life Sciences, is working with the growth hormone of cows. This hormone is a protein that is secreted by the pituitary gland of the cow. Bauman's research has revealed that cows injected daily with a small dose of the hormone increase their milk production from 23-41 percent, an increase that amounts to more than 25 pounds more milk per day from each of the highest-producing animals.

In a study to determine the long-term effects of such hormone injection treatments on the animals, it was found that none of the cows suffered any ill effects from the treatment, the composition of the milk produced was not affected, and the efficiency of milk production increased dramatically.

"The key is that the growth hormone increases efficiency," stresses Bauman. "It affects nutrient partitioning (the process of sorting nutrients and designating them to where they are to be used in the body) in the animal. In a lactating mammal, the hormone causes more nutrients to go to the mammary glands. In a growing animal, the nutrients go to the muscles for protein synthesis."

"What we have achieved here with the growth hormone corresponds to what we might achieve through artificial insemination and breeding techniques in 10-20 years. It's a big jump," says Bauman. The treatment is not quite ready for commercial use yet, however. The Food and Drug Administration must first approve its use for dairy farmers. "Before the FDA will approve the treatment," Bauman explains, "extensive studies will be needed to insure that the treatments are safe for the animals and the animal products are safe for human consumption." Professor Bauman estimates a 1988-1990 approval date for the growth hormone treatments for cows.

The work at Cornell has begun a frenzy of research into the effects of growth hormone. "As a result of our initial work, there is research being done with growth hormone in just about every agricultural institution in the country," Bauman says. The work goes on outside the country as well. Bauman has a project on growth hormone research and is presently working in conjunction with researchers from the Danish National Institute of Animal Science on growth hormone research. The scientists there have brought about a ten percent increase in the rate of weight gain in cattle. Because the hormone steers nutrients toward the production of protein and away from the production of fat, the ten percent increase in rate of gain results in an even greater increase in edible meat. "We've even done taste panel tests on the meat, and the testers couldn't tell the difference," claims Bauman.

The implications of Bauman's and others' work with growth hormone for world hunger is obvious. "The world's population is soon expected to double," Bauman says. "We know already that food production is a problem in many parts of the world. We need to produce the amount of food in the next 40 years that has been produced in the history of humankind. You can't minimize the social and economic challenge of getting that food to the people who need it, but if we don't find ways to increase the efficiency of both animal and plant food production, then all of the social and economic questions are irrelevant. Simply, animal and plant scientists must make major advances in the efficiency of food production."

by Kirsten L. Mikalson '85
New Weed Scientist

Joseph C. Neal has been appointed assistant professor of horticultural weed science in the New York State College of Agriculture and Life Sciences at Cornell University. He fills the position held previously by Arthur Bing, who retired from Cornell in 1983.

Neal will devote half of his time to research and the rest to Cooperative Extension activities. His research will include the development of weed control strategies and programs for commercial nursery crop producers, turfgrass and landscape horticulture managers, and greenhouse floriculture managers. Graduate student training will be an integral part of his research program.

Educators Publish Book

Becoming educated is a liberating act. Failures in educating, on the other hand, are sorrowfully expressive. While the process of educating occurs every day throughout the U.S., much of it involves rote, arbitrary and verbatim instruction so that there are few intrinsic awards for students.

To help parents, students and teachers glean a keener insight into the process of learning, two professors of education at Cornell University have written the book, Learning How to Learn. Joseph D. Novak and D. Bob Gowin are both in the New York State College of Agriculture and Life Sciences at Cornell. Novak and Gowin give practical “how to do it” information and strategies to help students learn how to learn.

Biotechnology Symposium

An international symposium to examine research advances achieved in recent years in biotechnology and to explore the potential for applying these new technologies to plant breeding and to agribusiness will be held at Cornell University, June 23-27.

The symposium — "Biotechnology in Plant Science: Relevance to Agriculture in the Eighties" — is being organized by the Cornell Biotechnology Program, which fosters research focused on the molecular aspects of genetics and cell biology for application to plants, animals, and cell production. The conference will be held in Statler Auditorium on campus.

For more information about the June symposium program and registration materials, contact Sheila Huey, Baker Laboratory, Cornell University, Ithaca, NY 14853-1301, or at (607) 256-2300.

Author of the Year

Dean Sutphin, assistant professor of education in the New York State College of Agriculture and Life Sciences at Cornell University, is the recipient of the Award of the Year Awards, presented by the American Association of Teacher Educators in Agriculture.

Sutphin and his co-author, L.H. Newcomb of Ohio State University, were recognized for having written the most exceptional article published during 1984 in the Journal of the American Association of Teacher Educators in Agriculture. Their paper was entitled, “Positions Held by Teachers, Teacher Educators, and State Supervisors About Selected National Issues in Agricultural Education.”

Jerry Rivers of the Division of Nutritional Sciences at Cornell University has been awarded the title of professor of human nutrition, emeritus.

A member of the Cornell faculty since 1962, Rivers is well known for her research on vitamin C metabolism. She was also instrumental in initiating and leading the graduate program in clinical nutrition at Cornell.

Subsurface Dwellers

The U.S. Environmental Protection Agency (EPA) has awarded $198,233 to Cornell scientists developing techniques to extract bacteria from subsurface area beneath the soil zones, to identify and characterize these microbial populations and their activities. Until recently scientists have assumed that these regions were barren and lifeless. Instead, they are home to bacteria that have adapted to the spartan conditions of life below the earth's surface.

Some of these microorganisms have the ability to degrade several industrial pollutants. The EPA is funding this research so scientists can explore further the possibility of using bacteria to help humans control pollution in ground water, the source of 95 percent of the fresh water in the U.S.

"As yet, almost nothing is known about the physiology of subsurface organisms, how they have adapted to their environment and how they will respond to nutrients," says William Ghiorse, the project leader. Ghiorse, an assistant professor of microbiology in the College of Agriculture and Life Sciences at Cornell, and his research team work with researchers at Florida State University and the U.S. EPA in Oklahoma to bring unadorned bacterial samples from subsurface regions for studies in the lab. They place laboratory grown microorganisms into the samples to study the effects. Microbiologists also examine the response of the bacteria to various nutrients and pollutants.
Women in International Development (WID) is not what you may think it is. It is not the name of a major, nor is it the title of a course. It is a newly established program to study women in agricultural and rural change and it is supported by the New York State College of Agriculture and Life Sciences at Cornell University. "Our purpose is to link rural women in other countries to rural women right in our own backyard," explained Shelley Feldman, an assistant professor in the Department of Rural Sociology who is also the coordinator of the WID program.

Although there has been a women's studies program on campus for the past ten years, it has focused on American women learning about subjects that were new to them. "It left out any kind of international and rural perspectives," Feldman said. For the first time, a two-year trial period, a variety of courses, workshops and seminars will be offered by the ag college. The first workshop took place on February 9, 1985. "Over 100 people attended this joint college, full-day effort. It illustrates WID's link with other people and other programs and departments within the University," Feldman said.

Representatives from international agriculture, rural sociology, agricultural economics, plant breeding, animal science, and nutrition participated in a panel and students and faculty joined in later informal sessions.

Because the program began so recently, only one course has been offered during the spring term of 1985. It is a rural sociology course taught by Feldman and will be offered again next fall, along with another course oriented toward women in international development and rural industrialization.

Feldman's course is called Gender Relations and Social Transformation. It addresses women's issues and examines women's involvement in rural development. Some of the topics that are covered include women in agriculture, women in migration, conceptions of household labor and wage work, the sexual division of labor and technology. The purpose of this course is to help people learn how vital women are to agriculture production and rural change.

In the four months that the program has been in progress, everything has gone very smoothly. Feldman would like to see the program become a permanent one, but so far nothing concrete has been decided regarding its future. "Our long-term goal is to coordinate our research efforts and teaching efforts with the cooperative extension efforts," Feldman said.

Meanwhile, Feldman will continue to discover resources throughout Cornell pertaining to women in international development. "We are trying to make a substantive contribution to other research on campus pertaining to women in international development," she explained. "It this happens might be a great achievement to have the program continue past its trial period."

by Jacqueline M. Tobin '85

New York State College of Agriculture and Life Sciences, a Statutory college of the State University, at Cornell University.
The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jill Grossvogel, Jacqueline Tobin, Beth C. Watner.
Campus construction is nothing new to the Cornell student. I, for one, have long since come to accept the bright yellow bulldozers as part of life on the hill—even as much as the blue light bus and Louie's Lunch truck. The humm-grrr of the omnipresent backhoe lulls me into lecture-listening mode day-in, day-out, as expectant and subconscious as the restless squeak of chairs and the scratch of pen on paper. I never had occasion to think about construction before.

Until now. My last semester at Cornell.

There are currently so many fences, detours, mud-holes and ferocious, giant, dirt-pushing beasts refacing the campus that just "getting there" extends a normal ten minute trip to at least 15 or 20. With the amount of walking I do, that adds up to a lot of wasted time. Yet, when I look around me, nobody seems to think anything of it at all.

My peers, weighted down with futuristic plans and academic burdens, shuffle, head low, right through the mess and come out unscathed. I, on the other hand, have managed to fall victim to these constructive endeavors not once, but twice in one short week.

Just the other afternoon, I was heading home from the quad. I had cut through Warren Hall and was headed down the dirt path that winds its way through the trailer park in front of Martha Van Rensselaer Hall. Up ahead, the dust was thick and hovering over the new Comstock Hall mud-hole (or dust-hole, depending on the weather). As I neared the excavation, all seemed quiet and safe.

Quiet, that is, until the man in dust-covers cranked on the sand blaster in an attempt to loosen the dried cement from the inside of his cement-mixer. I, of course, was close enough to note the effects of what seemed like a massive sneeze into the pile of gray, sifted flour. Not one to panic, I clamped shut all facial openings, lowered my head into the blast, and tried to saunter through as though nothing out of the ordinary had happened.

Alone, this mishap wouldn't have fazed me. The next day, however, made me hold construction sites in deep respect.

I was with a friend and late for a date with the library. Being my first time out that day, I had just noticed that, overnight, the "Sidewalk Closed" sign had been put up before the Beebe Lake footbridge.

"Eh, we can still cross. Did it this morning, " my friend said.

"Okay." No problem, I thought, since others were crossing.

Well, I felt as though we were playing war games. Two mud-holes, four large dirt piles and a fence later found us facing Mt. Washington amid the northern White Mountains.

My friend has long legs. She stepped over and was hopping fence number two while I was fishing in my pack for rope and grapnel. When I finally rose above the peak, she mumbled something about "... still wet."

"What?" I leaped down, finally, onto something concrete.

"I said, 'Watch it, the cement is still wet.'"

I am only thankful that my reaction was quick. As it was, I only sank up to my knees before realizing that something was not right. I extracted myself calmly before anyone noticed a thing.

My friend was busy ahead, removing fence number three, anxious to get to her books. I scampered along behind her with concrete squishing in my socks. By the time I reached Mann Library, I was used to the inquisitive glances and was able to clomp along with my chin up. What I didn't realize was that, when cement dries, it falls off. After leaving several piles of dust on various levels of the stacks, I snuck up the back stairs and left.

As I made my way home (the long way around), I felt pity for whoever had to mop out the stacks. Sifting my toes through the dust in my socks, I thought how appropriate it was that my one imprint on Cornell was made during the time spent "getting there."

by Mary Jaye Bruce '85
On a blustery January day I watched as my parents' car disappeared in a whirl of snow. At a university of over 17,000 people, I suddenly felt so very alone. My room in a dorm basement was reminiscent of camp barracks, cold and barren. My two roommates seemed nice, but were strangers. In the weeks that followed, I missed my old boyfriend, and spent Sunday afternoons longing for my mother's Italian cooking. I was literally miserable.

This accounts for about two-thirds of our transfers.

The three statutory colleges at Cornell accept more transfers than the endowed colleges, Church said. "All three of the colleges offer specialized programs not available elsewhere in the state. We feel a responsibility to provide the opportunity for students to transfer into these areas."

Jennifer A. Battle MPS '84, Assistant Coordinator of Admissions, is more than involved with the recruitment of transfers. She frequently visits other institutions, especially the community colleges and ag and tech colleges, to discuss the College's academic programs and transfer procedure. "We have a very close relationship with these colleges," she said. "We attend their Transfer Days where I can sit and talk to their students. I also keep an active flow of communication through the mail with transfer counselors and key faculty members."

Throughout the transfer process, Battle works closely with the students and stays in touch with them once they are here. "Transfers are always relearning, which is often harder than learning. We try to help them both academically and nonacademically because we really care."

It is not uncommon for many transfers to experience a drop in their grades after their first semester, Church said. "But grades do go up after the first semester or two. The success rate of transfers is very high, with 95 percent graduating, most after four semesters." He also stressed the

When Transfer Center members have free time, they like to hang around together!

If misery does indeed love company, then I was truly not alone. For I was just one of several hundred people experiencing the traumas of being a transfer student at Cornell, and one of close to a hundred transfers entering the College of Agriculture and Life Sciences.

According to Richard A. Church '64, Coordinator of Admissions in the ag college, between 400 and 450 students transfer into the College each year. "The percentage of transfers is probably 20 to 25 percent of our student body, but it's a heavier percentage in the upper two years," he said. "Approximately one-third of the juniors and seniors are transfer students."

What accounts for so large a number? "I think Cornell is regarded as the best place for an education in agriculture and life sciences," he said. "We are the land grant college of New York State, and a large number of students come from the state's six agricultural and technical colleges and from the community colleges."

It's Not Easy Being Green

by Margaret Anne Tockarshewsky '86

4
importance of good advising. "The advisers need to tell the students when they come here to move cautiously until they get their feet on the ground."

Dr. George J. Conneman, BS ‘52, MS ‘56, Director of Instruction for the College, and professor of agricultural economics, firmly believes this. One-third of his advisees this year are transfers, and he has counselled numerous transfers, mostly from the ag and tech colleges, over the past twenty years. "I like transfers because I think they are usually more settled. They know what their objectives are," he said.

"The first thing I do is sit down with them and talk about what they have taken at their previous colleges and see how that fits into our program." He then advises the students to take only four classes or between 12 and 14 credit hours. "Often transfer students believe that they can take 18 credit hours, and they can't. I don't care how smart they are, because along with those four classes they're also taking a two or three credit course called adjustment."

Conneman said that he is available to aid all his students, but most often it is the transfers who seek help. "It's not that they're any less intelligent," he explained. "It's just that they're uncertain as to how what they know meshes with what we do." There are some faculty members, he said, who believe that transfers are not as smart as freshman. Conneman waved aside such negativism. "It's like comparing apples and oranges. It's not fair." He feels that those two years of college allow some students to improve certain skills. "They just need time to get their acts together. After all, they've been to school for two years, decided to go two more and had to switch institutions to do it. They're very highly motivated."

Meteorology major Shelby Harrison '86, a transfer from the Junior College of Albany, echoed Conneman's sentiments. "If any high school students asked me if they should apply to Cornell directly from high school or transfer, I'd tell them to transfer. I don't see how they can come directly from high school. They may be prepared mentally, but not emotionally. I think a junior college does that."

Graduation from a two-year school and the desire to pursue a bachelor's degree is not the only reason why students choose the transfer route. I personally was accepted to Cornell as a freshman, but was forced to go elsewhere for financial reasons. Having been exposed to the academic plant breeding and genetics. As I had been out of school for a while, I thought it was unwise to go to a major university. So I went to Morrisville (SUNY Agricultural and Technical College at Morrisville), graduated and transferred to Cornell."

Miller felt that working first and then returning to school has made him appreciate his education more.

Both Harrison and Miller live in the Transfer Center (TC), a residence unit housing 51 students, located in Clara Dickson Hall. The group is concerned with orienting new students to the university and sponsors various activities designed to bring together on and off campus transfers. Scott Chapman '85, president of the TC this past spring said, "The Transfer Center helps not only its own people, but outside students as well. Transfers need to have someone concerned. The students in the TC care." Fundraising, membership, social and service committees help coordinate transfer events. Chapman noted that there is more concern being placed on the transfer student, particularly by the ag college administration. "I think that they are beginning to realize that transfers have needs different from freshmen and are starting to address this issue."

Thom Korber ’86, a general agriculture major, who transferred from SUNY Agricultural and Technical College at Farmingdale, is the 1984-85 resident adviser for the Transfer Center. Students frequently seek him for advice, sympathy and a friendly ear. He feels that because he had the difficult time adjusting, he is able to recognize other students' anxieties and needs. "I try to lead them away from worrying about their grades and the academic pressures that they feel and try to point out other opportunities here," he said.

"I tell them to relax and enjoy what's on campus," Korber explained. "There's a reason why they were accepted to this university. They should just try to find that reason and make the best of it."
Here in the northeastern United States, large numbers of valuable ash trees are afflicted with a complex disease known as "ash decline." As of yet, there is no known cure for ash decline and "a cure is most unlikely," said Dr. Wayne Sinclair, a specialist in tree diseases and a professor in the Department of Plant Pathology in the College of Agriculture and Life Sciences. Sinclair has been researching ash decline for about seven years.

Ash wood is prized for its strength, and is commonly used for floors, furniture, veneer, and handles for tools and sporting goods, according to Sinclair. Ash trees are widely used in landscaping because they are adaptable and hardy.

In New York State a majority of white ash trees are in some stage of decline. The problem was first identified in the 1920s. "Ash decline is viewed as one of the most important pest or disease problems in forests and landscapes of New York State and its adjacent areas," said Sinclair.

"The term 'ash decline' refers to a gradual failure of health with no indication of the cause," explained Sinclair. A number of factors can facilitate ash decline, but the primary cause of the ash decline complex seems to be a microorganism which has characteristics of both bacteria and viruses and is usually parasitic in plants, called a mycoplasma-like organism (MLO). This microorganism causes a specific disease called "ash yellows." "We think that in New York State, most ash decline is caused by mycoplasma-like organisms. That is, in most cases, we can substitute the term ash yellows for ash decline but not in all cases."

"We don't know how much ash decline is due to the interaction of the mycoplasma with viruses. Often an individual declining tree is affected by mycoplasma and by one or more viruses simultaneously. We still don't know what their separate roles in the disease complex are."

One difficulty faced by plant pathologists working toward control of the malady is their inability to isolate the
a prime example of an infected white ash right in front of Warren Hall, as a matter of fact,” he said.

Sinclair recommends that owners of healthy trees minimize the environmental conditions that promote decline. Watering trees during dry periods, fertilizing regularly, and avoiding unnecessary wounds (like tearing the tree’s bark or removing twigs) will help to maintain an environment less conducive to decline, although these measures will not affect susceptibility to mycoplasma infections.

Present research by Sinclair is focused on three areas. “First, we want to learn what insects transmit the mycoplasma that infects the trees,” he said. Second, we are evaluating types of ash trees used in ornamental horticulture for tolerance to the ash yellows agent. We would like to learn if tolerance is heritable. Third, we are evaluating therapeutic treatments for trees that are already infected.”

Ash decline is a complex disease syndrome for which there is no clear cure. Dr. Wayne Sinclair’s research may help to preserve our valuable ash trees here in New York State.

mycoplasma that causes ash yellows, making research on the microorganism nearly impossible. In addition, “the organism is systemic within the ash trees, and it is very difficult to rid the entire plant of it,” said Sinclair.

Other factors which contribute to the ash decline complex are drought, low temperatures, air pollution and fungi.

Ash trees usually decline for several years before their death. One of the first symptoms is early autumn color in the leaves. The tree begins to grow more slowly, with leaves that are off-color and smaller than usual. A tufting of foliage may occur at the ends of branches. At this point “dieback” — the failure of some twigs and branches to leaf out in spring — usually begins. “This process proceeds in fits and starts, and the tree may take from two to ten years to die after the onset of dieback. Rarely will it recover,” said Sinclair.

Just how widespread is the ash decline called ash yellows? “The disease has been noted all over New York State, in parts of Massachusetts, north near the Georgian Bay area in Ontario, and south to New York City,” said Sinclair. He noted that it is primarily the white ash (Fraxinus americana) which is afflicted by this disease complex. “There is

**Tree rings show** the abnormal growth pattern caused by ash decline.

A healthy ash tree (left) is full of leaves, while one stricken with ash decline (right) is relatively bare.
Much has happened since that fateful day in May when President Frank H.T. Rhodes announced the appointment of Dean David Call '54, MS '58, PhD '60 as Vice President of University, State and Federal Relations.

"The next few months will be a critical time in the development of our relationship with the state," said Rhodes in a prepared University statement. "All of us will benefit from the vigorous leadership that he will provide."

President Rhodes was indeed correct. As his term came to a close in July 1985, Dean Call needed only to flip through the pages of the Cornell Daily Sun to recapture the excitement of his year as vice president. Since his appointment in the early spring of 1984, supercomputers and biotechnology have come to the Cornell campus. Comstock Hall has become the University Telecommunications Center. Ground has been
broken for the Collegetown Performing Arts Center. Blueprints have been drawn for a new multi-million dollar sports facility. Students have staged sit-ins in support of divestment from South African companies. And the fate of Roberts, East Roberts and Stone Halls has pitted Ithaca townsman against University administrators.

As vice president, Call has worked extensively with members of the state and federal governments. By appealing directly to our political leaders, Call was able to voice the growing concerns for research funding and financial aid expressed by Cornell faculty members and students. He also directed the University public relations and communications programs which include such publications as the Cornell Chronicle.

Prior to Call’s appointment, these and other duties were divided among several administrative officials. But according to the dean, the centralization of the office left the University better prepared to deal with the annual budget and related political legislation.

During his term in office, Dean Call was called upon to perform a variety of University functions. He became a key Cornell lobbyist confronting state and federal legislators with key academic issues. He was forced to play campus peacemaker and analyst as he carefully explained the issue of historical preservation of the ag college to the student population and Ithaca community. He also set out to improve Cornell-SUNY relations, a major stumbling block in past years and a personal goal.

A large proportion of the dean’s time, however, was spent seeking financial support for the University. Millions of dollars are needed each year to maintain current academic programs and to fuel new, up and coming projects such as the Biotechnology Center. Close to half of Cornell’s $600 million budget comes from state and federal dollars. Thus Call was forced to play an active, competitive role in Albany as well as in our nation’s capital.

One of Call’s most vivid memories as vice president was New York State Governor Mario Cuomo’s visit with the University Board of Trustees and Cornell University Council last autumn. It was on this memorable occasion that the Governor pledged $20 million dollars to the University’s biotechnology program; a joint effort of University research departments and top U.S. industrial leaders to study molecular and cell biology and has gained a broader perspective of the total University. “I have a better appreciation for the breadth, diversity and quality of Cornell,” said Call.

“Not only does it have the ‘super-computer’, but other important things too. It’s not just one college, but a quality school with many pockets of excellence. It’s quality across the board . . . it’s Ivy plus!”

As Call reflects on his term in office, many names and faces as well as memories of long difficult hours come to mind. But fond remembrances of Frank Rhodes will linger.

“He has tremendous dedication and genuine love for Cornell students,” said Call. The dean praised the president’s diligence and belief in the quality of the University.

According to Call, his year’s sojourn in Day Hall was a rare experience. Unlike the dean, few students have the opportunity to rise through the academic ranks to become vice president of their alma mater. “I’ve been in every position at Cornell except assistant professor and president,” said Call. “I’ve been a Cornell student, paper grader, graduate student, associate professor and professor. I’ve even been a waiter at one of Cornell’s many dining units.” In 1973, Call was appointed Director of Cooperative Extension, and in 1978, Dean of the New York State College of Agriculture and Life Sciences. “Now I’m on the way back down,” said the dean, reflecting on his return to Roberts Hall.

On July 1, Call returned to the agriculture quadrangle to resume his duties as dean. During the interim, Kenneth E. Wing ’58, M.D. ’60, PhD ’66, served as acting dean.

As vice president, Call said he often felt isolated from the daily business and activities of the ag college. He looked forward to resuming his day-to-day involvement with faculty and students. “I used to brag that I knew the first name of every faculty member in the College,” said the dean. “But now there are twenty more that I don’t know. I guess I have a lot of catching up to do.”

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**I’ve gained a better understanding for the breadth, diversity and quality of the University.**

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*genetics. “This is an enormously important development for both Cornell and New York State,” said the Governor.*

According to the dean, the past year was both a positive and challenging experience. “I’ve learned a lot about the central administration of the University,” said Call. “Through on-the-job training, I’ve become more aware of the decision making process that goes on in Day Hall. It’s unfortunate that not all deans representing the University have the opportunity to see first-hand the complexities of the University.”

Not only has he enjoyed a unique experience as vice president, but he
Can the simple use of a soil survey actually save New York State taxpayers five million dollars? This happened when a private property owner brought suit against the state because it wanted to condemn his land. He claimed that the land was situated on a gravel pit, thought to be uncommon for the area. This increased the value of the land. But the soil survey of the area proved that type of land was in fact quite common in the area, and thus saved New York State five million dollars.

Gerald Olson, Associate Professor of Soil Science in Resource Development, has been working with this type of soil survey at Cornell since 1962. A soil survey is a map that charts the land in length, width and depth. It also describes the chemical and physical properties of the land, the slope of the area, drainage of the land and many other properties of the soil. Olson's philosophy behind his work with soil surveys is simple. "My research is based on need; we find out where the problems (relating to the soil) are, and try to solve them with the aid of soil surveys." Some of the problems Olson investigates are hunger and erosion. He continued, "We try to take the information we have and translate it into useful information for the consumer."

Olson applies his philosophy mainly through his work with the Cooperative Extension program at Cornell University. In conjunction with this program, Olson helps local farmers analyze their land to find the best areas for drainage, placement of a septic tank and planting. Without this help, many farmers could lose thousands of dollars by misuse of their land. Olson also pointed out that most of the information a farmer needs to do this can be obtained from one visit to the Soil Conservation Service or the Cornell Cooperative Extension Office. The cost of this service could be recovered within one year.

Aside from using his skills to help farmers, in 1984 Olson extended his knowledge to help the Sea Grant Extension Program. Through this program he and Arthur Lieberman '52, MS '58, Professor of Landscape Architecture in the College of Agriculture and Life Sciences at Cornell, began research of the coastal area of both the north and south shores of Long Island in New York State. They found that the north shore of Long Island was plagued by the presence of steep bluffs on the shore, while the south shore was battling beach erosion. According to Olson, the purpose of the research and the conference which followed was to "bring the knowledge of the erosion in these two areas together and to document as much of it as we could. We concluded our research by offering the towns that were affected by the erosion suggestions on how to stop or slow the process." The programs that Olson and his colleagues suggested to help these problems concerned themselves with the use of certain plants in connection with a dune building program to help stop the erosion. The roots of the plants would serve as anchors in the eroding soil. The soil surveys with which Olson works provided the basis for the project as well as helped to provide a standard map of the towns. In late 1984, Olson was awarded a "Certificate of Appreciation" by the New York Association of Coastal Extension Professionals for this research.

Olson has also kept up with the changing times by adapting his research to include the use of computers. He said, "Most of the information pertaining to soil surveys is presently compiled and stored using computers. We are also starting to generate the maps themselves using the graphics available on the computers." In mid 1984, the Soil
Conservation Society of America acknowledged his work in developing computer programs to present soil survey information, by honoring Olson with the "Commendation Award."

Because of the nature of his research, Olson has traveled extensively. Last January he visited Costa Rica, and he recently returned from a trip to Israel. He has done work in Hawaii, India, Iran, Australia and Thailand as well. His research also takes him to less exotic places such as Enfield, Binghamton, Buffalo and Ithaca, where he presents lectures to the local communities and universities on world food issues and soils. Some of these lectures are run as part of the Cooperative Extension Program, while others are done during his spare time.

In addition, Olson finds time to teach a course to graduate students of agronomy in the ag college. In this course the students are required to write a paper dealing with current problems that can be aided and solved with the use of soil surveys. The paper is eventually filed with the Tompkins County Department of Planning so it may be used for future research. Olson has also found time to write two books that are used as texts for his course. He is particularly excited about the release of his latest one entitled Field Guide to Soils and the Environment: Applications of Soil Surveys, which took him twenty-five years to compile. Olson is currently working on his third book, which he hopes to see on the book shelves shortly.

Regarding the next ten years, Olson said, "I'd like to have another book published, do some more traveling overseas and still be working for Cornell University showing people how to use their soil properly and wisely."

by Amy Singer Underberg '86
A Lingering Impression

Joe Cornell
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Cornell University
Ithaca, NY 14850

Dear Joe,

By the time you read this letter, I will be long gone from Cayuga's waters and our alma mater. As I sit here writing this to you, though, I find it very hard to imagine where I'll be or what I'll be doing while you muddle through courses in Map Reading 101, How to Win Friends and Influence Roommates 100, and Coping with Rainy Days 110. There have been many things I've had the urge to tell you new Cornellians during my long semesters here, besides "Don't do it!" when I see prospective students touring the campus in large flocks. For one thing, the campus may be beautiful—or at least it will be once they've finished digging up the ag quad and have gotten rid of the large yellow mechanical moles pushing up dirt mounds in front of Balch Hall—but don't let anyone tell you the weather here is beautiful. You see, the sun only comes out on Parents' Weekend, when pre-freshmen tour the campus, and long enough into your first semester for you to pay the bursar's bill that will keep you here at least until December. Last fall, I heard two young women (I won't assume they were freshmen) saying, "Wow, this weather is so warm—I can't believe they always say it's so bad here!" "Give it another month," I wanted to warn.

A pre-freshman (a senior in high school who visits Cornell for a day or two before deciding to come here) asked me the other day just how cold the winters really get in Ithaca. A friend of mine, Dave Dennison '86, summed it up very well in a letter home: "I hate winter. I detest the wind, the snow, the ice, the freezing rain, the ice (again) and the slush. I do not enjoy having chapped lips, a crunchy face and crisp feet. On especially cold days, such as today, I can even feel my brain starting to freeze . . . ." The cold weather only lasts six months, though, and any hearty soul can brave it out that long. When Ithaca weather is nice, it's true, it's, well, gorgeous. You'll have a while to enjoy it, too, but you'll have to stay here for the summer. A lover of fall and spring is out of luck, because not only are those seasons two weeks long, maximum, but they also coincide with the busiest times of the academic year. I sometimes forget to breathe the fresh air and notice that the leaves were changing or that they were budding. I've missed many great sunsets, too, although I have stopped to watch some of them. Libe Slope offers a great perch for viewing them, and there are other out-of-the-way places like Sunset Park in Cayuga Heights where you can look over Cayuga Lake and most of Ithaca. Don't go through years here and not notice sunsets and leaves, they're just as important as Chem 207, even if it doesn't seem that way now. Imagine where you'll be in ten years, then look back at yourself now. Will that grade matter so much?

You will find that students' opinions of courses differ greatly. I have not met up with a "gut" course at Cornell. Certainly, some come more easily to me than others, but I have never simply been able to sit back and glide through a semester to an A without doing some work. I always lamented not being able to take more English and foreign language courses, while my plant-science-major roommate grumbled about the humanities she still needed to take to fulfill distribution requirements. Maybe, if you're really ambitious, you could talk to the "powers that be" about a credit exchange system where you could take some humanities credits for other people and they could take science credits for you.

While you're in the office talking to the authorities, perhaps you could suggest some campus improvements. For instance, did you ever notice the well-trodden path cutting diagonally across the ag quad from Comstock Hall to Stone and Roberts halls? Why aren't the sidewalks placed where people actually walk? Which is more unsightly: a muddy path or an asphalt sidewalk?

By the time you read this, that is, in October, Stone Hall probably won't even be here, and Roberts Hall may be torn down shortly after that. The best part about this de-construct is that you may not have to listen to the heaters in 131 Roberts much longer. When the machines are turned on, they make whirring noises so loud that they drown out the professor. Yet when they are shut off, they give out periodic deafening BANG's like the backfiring of a very old Mack truck.

You'll have to be the one giving me a tour of the campus when I come back to visit—everything will be so different. Maybe you'll stop and help
me out if I look really lost like some of the freshmen I’ve seen.

Did you know that in the early days of Cornell the freshmen had to wear beanies so everyone knew their status? Well, those days are gone, but it’s still sometimes pretty easy to tell who the frosh are. They ask questions that are not exactly dumb, but to the seasoned Cornellian, are usually so obvious that it’s hard to believe everyone doesn’t already know the answers. One night last fall some friends and I were walking to Collegetown from North Campus when this girl leaned over the bridge railing near Noyes Lodge and Risley Hall, looked into the dark, bottomless chasm, and asked her companion, “Bawbruh, is this the gawge?” One of my friends spluttered with laughter right in her face.

Freshmen show their beanies in other ways, too. On my first day of class freshman year, there was an error in the room roster, and I went to five different places looking for my class. It turned out that it was on Stewart Avenue in the Communication Arts Graduate Center. By this time, I was half an hour late for my class, it was raining, and as I trudged along the road, a car drove by and splashed me. Things like that are now a common occurrence, but I was so miserable then that I yelled an expletive and started to cry right there in the street. Someone across the road looked at me a little funny—maybe he was a senior.

Being a senior has certain advantages. As I write this, there are only 42 days until graduation. Of course, that also marks 42 days until I’m thrown out into the “real world.” I’ve always hated it when people said things like, “Oh, your problems are nothing now; wait until you’re out in the real world.” So what’s Cornell? The fake world? None of the things that have happened to me during my four years here have been real? Hmm. Of course, I know what they mean—Cornell’s a different kind of world. In fact, freshman year, I felt very isolated from everywhere, because when you live in a dorm, you tend not to watch TV or read newspapers as much. I wouldn’t have been surprised to hear that the rest of the world had disappeared overnight. Anyway, if I were to write this again in a few weeks, I would probably be able to write all about the job I’d found and all the money I was going to make. That is not the case right now, however. I have been informed that very few graduating seniors in the ag college are unemployed three months after graduation. How encouraging.

I’m excited to be graduating, but being a student definitely has some advantages. You can’t just blow off (“not go to”) work, but if judiciously done, it’s possible to blow off classes. Not many people in that real world get to sit outside on a blanket in the sun in April and write a magazine story. That’s speaking from a general point of view, of course. But do you know why the weather is nice? Because there are pre-freshmen staying at my house, asking silly questions and remarking how nice the weather is.

Well, work hard, Joe, and make sure you enjoy yourself. Don’t worry too much about your “sophomore slump” or about the “senioritis” you’ll get while you’re still a junior. It will pass. Just make sure you do, too! All the trials and tribulations, the long lines at registration, the optical scan forms, the failed prelims and the skip-

Sincerely,

Laura

Top right: Stone Hall, slated for demolition, and neighboring Roberts Hall. Lower right, Fall Creek Gorge, sometimes unrecognizable to freshmen.
CLASS CLIENTS

by Douglas Weiskopf '85

For most students, practical experience in their intended major must be acquired extramurally, either through internships, summer jobs, Cooperative Extension or field study work. This is no longer the case with communication arts students who are majoring in the public communications sequence. Starting this past spring, students in Professor Carroll Glynn's Communication Planning and Strategy course are gaining hands-on experience through the development of a public communications plan for actual clients.

In previous years, students in Communication Planning and Strategy have worked on case studies to sharpen their public communication skills. When Professor Glynn took over the responsibility of teaching the course, she changed the format from case studies to real clients. "My experience in other public communications curricula is that students gain some hands-on experience in a course similar to this one," said Glynn. "I have adapted approaches I've learned at other universities to fit the needs of the Cornell public communications student."

What are the needs of these students? According to Glynn, "The Department of Communication Arts doesn't have as many skill-teaching courses as some other universities do. There is more of an emphasis on communication theory. This course helps show students the connection between theory and application while allowing them to develop hands-on skills."

This spring semester, students served two clients. The first client was the Ithaca Community Dispute Resolution Center (CDRC), a cooperative resolution center which uses the process of mediation to settle common disputes. The second client was the Town of Groton, New York, located about twenty miles outside of Ithaca.

In order to work on campaigns for these clients, the students were divided into four groups of six students each, with two groups developing separate campaigns for each organization. What kinds of campaigns were done for these clients? If, when you first read about the clients, you wondered what mediation really was, or got a somewhat negative feeling about Groton based on something you might have heard at one time or another, then you are not alone. These are the exact problems that the students worked to alleviate.

"It doesn't do any good to promote the CDRC to the community if most people don't understand what mediation is," said Laura Mikalchus '85. "Therefore, our campaign was designed to help educate members of the Ithaca community about the aspects and benefits of mediation."

Mediation is the process through which a compromise is developed by the disputants with the aid of a trained mediator. It is done confidentially, inexpensively, and at the convenience of the disputants.

Whereas the CDRC was suffering from community ignorance about mediation, Groton was suffering from a poor image due to several misunderstandings about the town. According to Isaac Jordan '86, "Our group has designed a public communications campaign aimed at members of the Groton community. The idea is to instill the citizens with a feeling of pride that they can then exhibit to people outside of Groton."

Both Mikalchus and Jordan pointed out the benefits of developing their skills through real-life public communications experience, but they also mentioned other benefits that the course has to offer. "The biggest difference between this class and my other communications classes was that we were working in groups all semester," noted Mikalchus. "That gave us good experience in working with other people and organizing the different tasks."

Jordan felt that the course helped him learn how to tap resources that he did not even know existed. "It also helped me to clarify my career goals and make them more realistic," he said. "The technical aspects of public communications are really exciting."

The groups were able to present their campaigns before their clients and the Department of Communication Arts faculty on May 7. What about those students who do not find the field of public communications as exciting as they hope? Professor Glynn feels that this course is still a very valuable experience for a student. "Students learn how to deal with clients, other people and limited budgets. It's just not for those interested in public communications. These skills are broad-based and can be applied to many different aspects of communication problem solving," she said.

Simply the different style of learning is welcomed by these Cornell students. "I think students appreciate the course because it is different from the normal classroom experience," noted Lisa Lattuca grad '85, the course's teaching assistant. "The results are more tangible than an exam or a written report. And," she added, "It's fun!" Who could ask for more?
Groundwater is a vital resource which provides 50 percent of the nation's drinking water and 95 percent of the drinking water in non-metropolitan areas of New York State. Three million upstate New Yorkers rely heavily on groundwater for their daily consumption; two million of these people get their water from private, individual household wells and use the water for drinking, cooking and bathing purposes. Given such a vast dependence on groundwater, its contamination is indeed a serious issue.

When toxic substances spill onto the ground or leak from storage tanks into the ground, there is a danger that the groundwater will be contaminated and thus hazardous for human consumption. The toxic pollutants which cause the most problems for individuals who use groundwater are solvents and degreasers, gasoline and petroleum products and pesticides. According to a New York State Department of Environmental Conservation report, organic chemical contamination of groundwater has caused the closing of 24 wells serving 16 upstate public water supplies.

The health risks that stem from groundwater contamination are an issue of grave concern to the local residents who are dependent upon the resource. It is precisely this concern which has prompted June Fessenden-Raden, an associate professor of biochemistry and of biology and society at Cornell University, to study community management of environmental health risks from groundwater contamination. "We are concerned with the information translation and transfer of toxicological data to the community by different technical groups—scientists, engineers and government agency personnel," Fessenden-Raden explained. Assisting Fessenden-Raden on this project are Janet M. Fitchen, adjunct assistant professor at Cornell and an assistant professor in anthropology at Ithaca College; Rita A. Calvo, senior research associate and educational specialist in biochemistry and genetics at Cornell; and Jennifer S. Heath, a graduate student in environmental toxicology at Cornell. Their study is part of a larger multidisciplinary research effort on groundwater and water and toxicological risks.

To gain more insight into health risks in a community context, Fessenden-Raden and her colleagues are viewing the issue from two different perspectives. "First, we are looking at the cultural assumptions, economic variables, political factors, attitudes and practices which might enhance or block citizens, local officials, consultants, educators and community leaders from comprehending the key scientific and technical concepts and applying them in the resolution of a community issue," she explained. "Then, we are looking at the kinds of educational strategies and materials that can help communicate scientific and technical information in a meaningful way."

Fessenden-Raden and her associates have found that the problem that exists in these communities where groundwater contamination is a serious issue is the poor communication attempts by technical experts who come in and try to explain the problem to local residents. "Experts and the lay public in a community have different assumptions and values related to the situational context that may not be explicitly verbalized or recognized by either side," Fessenden-Raden said. This is why it is important to integrate this scientific and technical knowledge for both professionals who work with local communities and for the community members themselves.

"The larger project can make a substantial contribution toward increasing local understanding and fostering local self-help risk management capabilities with respect to protection of groundwater and public health," Fessenden-Raden concluded. Inevitably this will lead towards better protection of the environment in the future.

WARNING
DO NOT DRINK THE WATER

by Jacqueline M. Tobin '85
The chiming of bells, a panorama of uncommon beauty—a great basin framed on three sides by hills and the buildings of Cornell University surmounting the neat rows of streets and houses of the city of Ithaca. This is the picturesque scene enjoyed by a visitor from the top of McGraw Tower. The Tower and the chiming of bells bring memories rushing back to all who were ever touched by them.

The story of the Tower and the bells dates back to the pleasant September morning in 1868 when Miss Jennie McGraw, daughter of a Dryden lumber businessman, was looking through the new arrivals in the public library founded by Ezra Cornell in Ithaca. Interested in education, she approached Andrew Dickson White, Cornell’s first president, who was working in the library at the time, with several questions and was shown those volumes that would interest her. She took a keen interest in the library and in the purpose of the University and desired to present a gift to the institution to show her feelings. The gift to be given by Miss McGraw was to be a chime of nine bells, as suggested by Judge Francis M. Finch, a friend and legal adviser to Ezra Cornell.

It was fourteen days before the formal opening of the University. The challenge to cast, transport and install the chime in such a short time was great. Orders were sent at once by telegraph to the Meneely firm in Watervliet, New York. Miraculously on opening day, October 7, 1868, the bells were ready and were placed in a temporary wooden bell tower on the site of the present McGraw Tower, and formally rung for the first time.

Finch gave the following address, on behalf of Miss McGraw, at the inauguration exercises.

The same energy and rapidity of execution which in a few brief years has given us a University, manned and equipped, and ready to begin its centuries of work, has enabled her to give you these bells today. In fourteen days they were moulded, cast, brought to these hills, and placed in their temporary abode, waiting to add their music to the general joy, and to weave into melody the hope and happiness of the hour.

Of these bells there are nine. One of them is the worker of the flock. It will call your young men from their slumbers; summon them to each of the duties

Written at the suggestion of President Andrew D. White, the Jenny McGraw Rag contains 365 notes, one for each day of the year. It has been played on the chimes each weekday morning for more than 100 years—from Cornell Songs, 1940.
of the day; send them to the classroom and lecture; parcel out the hours, and guide and rule the days.

This address delivered by Finch summarized the grand purpose of the chime as conceived by Miss McGraw.

In 1908, eight of the ten original bells (nine presented by Miss McGraw and one tenor donated by President White) were sent back to Meneely and Company to be melted down, recast and tuned to the larger ones remaining in the tower. At this time the Trustees made an appropriation to purchase four more bells. Since then the number of bells in the tower has increased from 14 to a present total of 18. The number of bells continues to increase due to the gifts of fellow Cornellians.

In 1872 the Chime was moved to the tower of McGraw Hall, and a clock was installed in that tower in 1875. At that time McGraw Hall was the University’s library. In 1891, the bells and clock finally reached their present home—the 173-foot clock tower.

Miss McGraw married Cornell’s first librarian, Professor Willard Fiske. After her death in 1881, the University became the recipient of an endowment. By the terms of Mrs. Fiske’s will, the money was to be used for the support, increase and maintenance of the University’s library.

The Supreme Court barred the institution from receiving the endowment. The University had planned to use part of these funds for the construction of a new facility large enough to accommodate the library’s growth. The University delayed the construction in hopes that the litigation would be resolved in its favor.

The library outgrew McGraw Hall and action needed to be taken. In 1888 Henry W. Sage, Chairman of the Board of Trustees, offered to advance financial support for the construction of a new library building while litigation over Mrs. Fiske’s will was still pending. This advance was to be repaid to Sage if the University claimed the endowment.

With funding now available, architects and designs for the library were sought. Henry Van Brunt and two other architects, Charles Babcock and William Henry Miller, were given the opportunity to design the library.

All three architects submitted final designs to the Trustees and a committee adopted the design of Miller. He is now well known for his designs of several Cornell buildings: Barnes Hall, Stimson Hall, Andrew Dickson White House, Prudence Risley Residential Hall, and Boardman Hall which was replaced by Olin Library.

Comments recorded by Kermit Carlyle Parsons in The Cornell Campus described Miller’s plans as “Miller-esque rather than monumental... bright and airy rather than dignified and sedate.” The cornerstone of the library was laid on October 30, 1889. In August 1891 the books were moved from McGraw Hall to the new library building. On October 7, 1891, the formal gift of the building and of the $300,000 endowment fund was made public by Sage.

The facts of the library saga are inscribed on a bronze plaque in the main entry which interested students and alumni may read.

The good she tried to do shall stand as if ’twere done/ God finishes the work by noble souls begun. In loving memory of JENNIE McGRAW FISKE whose purpose to found a great library for Cornell University has been defeated/ This house is built and endowed by her friend HENRY W. SAGE.

Since that time the interior of the library has been significantly remodeled to provide additional reading space for undergraduate students. In 1961 it was renamed the Uris Undergraduate Library after its remodeling benefactor, Harold D. Uris ‘26. The bell tower has also been renamed McGraw Tower in memory of the McGraw family.

These elements on campus—the library, the Tower and the chime—symbolically represent Cornell University. The architectural excellence leaves an everlasting visual impression. The Tower offers a bird’s eye view for all to admire the beauty of Cornell’s picturesque setting. And the chime reminds us of the true meaning of Cornell as addressed by Finch in behalf of Miss Jennie McGraw:

Let them ring always harmonies and never discord; let them infuse into the college life, and interweave among the sober threads of practical study and toil some love of art and lines of grace and beauty; let them teach the excellence of order and system.
When publicity posters for the Cornell University Lecture Series failed to attract a large audience, Martin & Grossvogel Design and Printing was asked to redesign the look of the posters. However, Jill Grossvogel PhD '73, a partner in the firm and an instructor in the Department of Communication Arts at Cornell, thought it was an excellent opportunity for the students in her publication class to try their hands on a "real" project. She gave the assignment to her class, and as a result, all future lecture series posters will be based on a design created by one of her students.

Art of Publication is one of the few "artistic" courses offered in the College of Agriculture and Life Sciences. It has been undergoing somewhat of a renaissance since Grossvogel took over the course in the spring of 1984 from Prof. Victor R. Stephen, who retired after more than 20 years of teaching. In addition to bringing outside projects into the classroom, Grossvogel has been trying to update and restructure the course. "Many of the methods didn't reflect current design know-how. Changes in typesetting and printing occur so rapidly that it doesn't do any good to teach a course in publication unless you really keep up with the field," she said.

As a graphic designer — one who works with colors, space, paper and typography to create the image of a printed piece — Grossvogel is very much in touch with what is going on in publication. During the last 18 years she has specialized in working with arts organizations, museums, universities and performance groups in this country and abroad. In the late 1970s, Grossvogel prepared the first publication on Claude-Emile Schuffenecker, a post-impressionist painter, and arranged for the exhibition of his work at Hammer Galleries in New York City. She is considered an authority on his work and is often consulted by museums around the world.

Grossvogel was also administrator/curator/designer for the University Art

The Ithaca Opera Association used this design by Lorraine Page Ag '85 on posters for their production of Rossini's The Barber of Seville.
Gallery, SUNY-Binghamton during the same period and has been design instructor for The Cornell Countryman. In addition, she has designed a variety of pieces for Cornell, including season's brochures and posters for Theatre Cornell, Cornell Symphony Orchestra and special projects and promotional publications for the Johnson Graduate School of Management.

Because Grossvogel's background is in design and printing, whereas of Publication that semester, I was often frustrated by the limited supplies and outdated materials — tools essential to a designer. These insufficient materials made it difficult to apply what was learned in lecture to the lab, which met for two hours each week.

Grossvogel admitted that combining lectures with labs may not be the best way to teach the course. "It's hard to teach from a passive to active setting. I think it would be a better idea to have one course in the theory of graphic design and a separate course in application. Some students are just better at practical rather than theoretical work," she said. In an attempt to remedy the problem, Grossvogel eliminated all but one exam from the course in the spring of 1985. "When you give exams, you are working against a constant stream of memorization. I'd rather have the students learn to extract the important elements in the reading, summarize them briefly and apply them to actual design projects," she said.

Donna Mandell '86, who was a student in art of publication in 1985, agreed. "There is so little written work in class that it doesn't make sense to give exams. More emphasis should be placed on the lab work instead. When run with proper materials, a great deal of productive work could be done," she said.

Stephen's experience was as a commercial illustrator, she wanted to teach the course based on her different perspective. "As a designer, I am concerned with harmonious page architecture, as opposed to someone who works at translating real life situations into visual equivalents," she said. Grossvogel's desire to stress graphic techniques and aesthetic theory, rather than rendering and stylized drawing, was not fully realized that first semester due to a time constraint. She was able, however, to replace some old type books and paper samples with current ones, although more needed to be done. As a student in Art

Left: This logo designed by the author was almost selected for use. Right: One of the many pieces created for Cornell by Martin & Grossvogel.
of the highest priorities of the University. Before the coming 1985-86 academic year, most students who desired to study abroad had to research and plan a program which was sponsored external to Cornell. Only a small number of students could be accepted into the study abroad or exchange programs offered by individual colleges at Cornell. But the Cornell Abroad Office has arranged new Cornell-sponsored programs in six foreign countries established with the hope of surpassing last year’s record number of 200 students studying abroad. Ann Roscoe, Staff Assistant in the Cornell Abroad Office, said, “We first identified whether the educational institution abroad was comparable to Cornell. We concluded an agreement with that school to accept Cornell students and review and loosely rank the applications received from students. Then we nominate students to the foreign university and the admissions decision is up to them.”

Along with the new programs came some new policies which “came as a surprise to the Cornell community,” according to Assistant Dean Beatrice Rosenberg of the College of Arts and Sciences Academic Advising Center. All study-abroad students, regardless of whether their program falls under Cornell’s auspices, are now required to pay full Cornell tuition while they study abroad, rather than the actual cost required by the foreign university or program. The intent behind the policy is to give Cornell credit rather than transfer credit, and to make it possible for students with outright financial aid to use their full financial aid packages to study abroad, as they were unable to do in the past.

However, there are discrepancies, said Rosenberg. “While one student studying abroad at Oxford might be saving $2,000 by paying Cornell tuition, another studying in China, for what might only cost $1,200 for the entire year, is losing thousands of dollars.” Roscoe pointed out that approximately 40 percent of the students who have applied to study abroad next year are receiving financial aid.

Where does the extra money from Cornell tuition go after the foreign university has been paid? It goes back into the Cornell Abroad program to pay for faculty presence and accommodations at the University of Seville in Spain and the University of Hamburg in Germany, to aid those with financial need and to cover other expenses.

Aside from the money issue, the new policy also appears to have stricter regulations regarding who can study abroad and what universities are acceptable for study according to Cornell’s standards. Students in any college who wish to study abroad through externally-sponsored programs must be accepted through the Cornell Abroad Office first. The foreign university must be an accredited institution and students should have a

Ann Roscoe is assistant director

STUDY
"CORNELL"
Student exchange programs with Sweden and Mexico serve three students each year, and study abroad programs in England and Ireland take ten students each year. Students in the College have also been able to make their own arrangements for study abroad through programs run by other colleges and universities, but on the average only about 15 to 20 choose this method for studying abroad each year.

"With the new program, study abroad will become more visible on campus, and new opportunities will become available to our students as Cornell Abroad locates other participating institutions. Our students should begin to consider study abroad as a possibility for them, as a result," according to Donald C. Burgett PhD '70 Director of Student Services in CALS.

"It's difficult for individual colleges to mount the effort needed to broaden the opportunities for students to study abroad. Having a centralized study abroad program will make it easier for students to obtain information," Burgett noted. Many students studying in technical areas in the College have not had the opportunity to study in other countries because there have been few existing programs really appropriate for them. "Our existing programs are not highly technical — students already have a good foundation in a foreign language which makes study abroad easier. A student with no foreign language experience probably has to plan a study abroad experience for the junior year, with the sophomore year available for language study," Burgett suggested.

"We don't want just any student who wants to travel in a foreign country to be accepted to study abroad," Roscoe said. "It's a rewarding experience, but a student must have acceptable study plans to make it an educational experience without having to request a leave of absence."

As the program evolves there will be several areas we'll need to look at closely, according to Burgett. The information that goes out to interested students needs to be clearly spelled out and coordinated with the Cornell Abroad Office, since regulations vary between colleges. We also need to be aware of the impact of students paying Cornell tuition instead of paying their own way, and how this affects the students who wish to participate. "The new program can serve our students better if it can offer programs that are similar to those our students take, in addition to the liberal arts programs already offered, and it needs to look for institutions that can do this. We need to continue to accommodate students who make contact with an institution on their own," Burgett said.

Perhaps, after all the kinks are worked out of the new program and the results of its first year in operation can be evaluated, the program can be worked to fit everyone's needs. After all, the main goal of all the students and administrators is, as Roscoe said, to "keep the international experience going for more and more students."
GETTING YOUR NAME IN BRICKS

Early in the fall of 1982, two sophomores were stopped by a lost freshman on Cornell's North Campus. “Can you tell me where Robert Purcell Union is?” he asked. “Robert Purcell?” they echoed. Neither had ever heard of it. “There is a Robert Purcell Union,” they concluded. “There is no such place,” they told him. “You must mean North Campus Union,” they added, and pointed him in its direction. What they didn't know was that North Campus Union no longer existed; it had been renamed Robert Purcell Union, joining the majority of structures on the Cornell campus in being named after people who have contributed time, money or both to the University.

Sometimes a building is named for a donor who allocates money specifically for its construction. John D. Rockefeller, Harold Urs '26, William Snee '24, and the Seeley G. Mudd Foundation all contributed to the buildings named for them. Other buildings have been named for past Cornell presidents, including White, Day, Malott and Corson Halls.

All building names must be approved by the Board of Trustees at the recommendation of Cornell's president. Before they are considered by the Trustees, however, they must pass through the Committee on Memorials and Named Facilities. According to Swan Connell, secretary for the committee, its members are appointed by the president. Currently they are Richard Ramin '51, Vice President for Public Affairs; Robert Matyas '52, Vice President for Facilities and Business Operations; James Spencer '48, Vice Provost; Carol O'Brien '67, Director of University Development; Robert Miller '48, a professor in the Department of Agricultural Sciences; and Martin Sampson '39, a professor emeritus in the School of Operations Research and Industrial Engineering and a former dean of the Summer Session and Extramural Courses.

According to Ramin, the committee's chairman, names not chosen by donors are usually suggested by the faculty of the department or college using the building. Names for most buildings in the College of Agriculture and Life Sciences have been chosen this way since these buildings were constructed with state funds.

Roberts Hall was named for Isaac Philip Roberts, director of the College from 1896 - 1903. Caldwell Hall honors George Chapman Caldwell, who was a professor in the Department of Agricultural Chemistry. Bradley Hall is named for Richard Bradfield, a former professor in the Department of Agronomy, and Emerson Hall honors Rollins A. Emerson, a geneticist who headed the Department of Plant Breeding from 1914 - 1942. Stone, Warren and Fernow Halls were also named for professors.

Only one Cornell building bearing a person's name had its name changed; Franklin Hall became Tjaden Hall in October 1980. The building was once used for electrical engineering and its name recognized Benjamin Franklin's influence on this field. “The University is extremely careful in changing the name of a building that bears someone's name,” said Connell. The building was renamed for Olive Tjaden '25, a prominent architect. “I don't think Benjamin Franklin would have minded,” Connell explained.

North Campus Union was renamed to honor Robert Purcell '32, LLD '35, a former Chairman of the Board of Trustees, who Connell said “gave a great deal of time, effort and financial assistance to the University.” Eventually, more buildings may be renamed to honor others who have made important contributions to Cornell.

by Nancy Simpkins '85
Twice Honored

This must be an exciting year for Wendell Roelofs. Earlier this year, Roelofs, Liberty Hyde Bailey professor of insect biochemistry, was awarded the National Medal of Science. Now, he has been elected to the National Academy of Sciences.

Roelofs, who works in the department of Entomology at the New York State Agricultural Experiment Station in Geneva, was among 19 living and deceased individuals to receive the National Medal of Science. Roelofs was honored for his “fundamental contributions to basic and applied biology in the field of insect pheromones, their chemical composition and blends, their biosynthesis, how insects perceive and respond to them, and their use in insect pest management.” Also honored was Roald Hoffman, chairman of Cornell’s chemistry department and Nobel laureate. Both were awarded their medals by President Reagan in a White House ceremony.

Recently, Roelofs was one of sixty scientists chosen to join the National Academy of Sciences, one of the highest honors an American scientist can receive. Members are selected in honor of their achievements in original research. Roelofs has made significant breakthroughs in the utilization of sex pheromones of insects in agriculture. Roelofs developed the electropherogram, a special technique used to monitor pheromones, a major achievement in the field of entomology.

This past spring, many Cornell students received awards of recognition and achievement.

Awards of Spring

Elizabeth M. Dolinar ’85 and John E. Sheeley ’85 were honored by the College’s Alumni Association for outstanding service to the ag college. Each received a plaque and a $100 award. Other members of the Class of 1985 who were recognized for service to the college were Mary McCabe, Kimberly A. Wagner, Michele N. Coleman, Kevin E. Jack and Michael J. McCaffrey.

Six ag college students were honored by the American Society of Landscape Architects for excellence in landscape architecture. The presentation of the 1985 Certificate of Excellence for Studies of Landscape Architecture took place at a special banquet. Recipients of the Certificate of Honor are Kirsten A. Coffin ’85 and Robert Fuchs ’85, both undergraduates, and Shasap Chitasombat and Paula Horrigan, both graduate students. Certificates of Merit were awarded to two additional undergraduates, Laura B. Abbott ’85 and Dean W. Gowen ’85. The awards were given based on studio designs judged by a panel of expert landscape architects.

Kathleen M. Rowe ’85 and Mary Ann Mastrobattisto ’86 were named recipients of the first Edward L. Bernays Foundation Primus Inter Pares Award of the Public Relations Student Society of America.

COUNTRYMAN CAPSULES

The winners, both communication arts majors, were honored for their “outstanding achievement and participation” in the Cornell chapter of the PRSSA, which was founded in 1984.

Edward L. Bernays ’12, called the ‘father of public relations’, presented awards to the students.

J. Keith Moffat, a professor of biochemistry and molecular and cell biology, was one of eight Cornell professors to recently receive a prestigious Guggenheim Fellowship. The grants are given on the basis of “demonstrated accomplishment in the past and strong promise for the future.” The Guggenheim Foundation awards will finance a winner’s subject of study for a year. Moffat plans to use the grant to research the x-ray Laue diffraction from protein crystals.

Professors Emeritus

Three professors in the College of Agriculture and Life Sciences have been named professors emeritus. They are: Richard B. Fischer PhD ’53, education; Joseph F. Metz Jr. PhD ’56, agricultural economics; and Harrison Geiselmann PhD ’55, education.

Metz joined the College’s faculty in 1956 and was elected professor of marketing in 1966. Metz directed the international agriculture program from 1977 to 1982.

Fischer, a professor of environmental education, has been a member of the ag college faculty since 1953. Among the many awards he has won are the National Meritorious Service Award from the Association of Interpretive Naturalists and the Golden Award from the New York State Outdoor Education Association.

Geiselmann has been a professor of mathematics education since 1955. A former president of the Association of Mathematics Teachers of New York State, he was acknowledged earlier this year by the Chancellor of the State University of New York for his excellence in teaching.

Richard G. Warner, a professor in the animal science department, has received the Professor of Merit Award from the ag college’s Class of 1985. The award, given annually, is presented on behalf of the senior class by Ho-Nun-De-Kah, the College’s honor society. The award recognizes Warner for his “excellence in teaching, advising and genuine concern for students.” Warner has been a professor at Cornell for 34 years. He teaches livestock nutrition and conducts research on calf nutrition.
"I thought I could save some money," admitted Carolyn Carini '85, a first year veterinary student dual registered in the College of Agriculture and Life Sciences and the College of Veterinary Medicine. "I only applied to see if I'd get in, not really expecting to," she continued.

Perhaps the greatest benefit of beginning veterinary school a year early is financial. Because the undergraduate education is shortened, students save a year's tuition. Then after earning a Doctor of Veterinary Medicine degree (DVM), they have an extra year to work in which to pay back loans.

Sue Reiter '85, also dual registered, said, "I just wanted to go through the veterinary college's application process. I'd always wanted to go to vet school, and when I got in on my first try I said, 'Here's my chance.'"

We expect the same things from these junior applicants as from applicants possessing a bachelor's degree: excellent grades, experience in animal related jobs and high graduate record exam scores," said Marcia James Sawyer, Director of Student Affairs in the vet college. "They must be real 'go getters' and mature for their age, too. That's why getting in after only three years is so commendable."

Some students might find that they want more time to take a broad range of courses since once they are in the vet college classes are very specialized. That can be one of the disadvantages of beginning early, noted Sawyer. Also, preparing to apply in the junior year entails concentrating required courses into three undergraduate years. This does not usually afford these students the chance to take a variety of courses. "I really enjoyed studying for the courses in my animal science major," Carini said. "I guess I didn't really miss out on taking diversified courses because I was learning what interests me."

Both Carini and Reiter joked, "I never got to take the winetasting course with students in our class who had easy senior semesters." Nevertheless, they feel that the hard work they did as undergraduates prepared them for the rigorous curriculum in the vet college.

"I went into it realizing that I might not get all A's," said Carini. "So I wasn't overwhelmed. There's so much material taught that you can't possibly master it all at once. I just try to get a broad perspective to do the best I can and take it stride." Sawyer agrees that finding the balance is necessary for success in the College of Veterinary Medicine.

Reiter, who plans to go into mixed practice with both large and small animals, commented, "I really like school. Dual registration has been a great chance for me to begin study of veterinary medicine early and I find it satisfying to be learning practical material with a purpose that will be useful in my future career."
Down to Earth
ABOUT THE ISSUE
In these times of swelling cities and shrinking rural areas, it is good to know that some people are still in touch with the earth and the other species we share the environment with. In this issue, we will examine such down-to-earth topics as research into synthetic soils, increasing milk profits, Cornell's beef cattle and a program to help an endangered bird species stage a comeback in the wilds and in the city. We will also look at problems and solutions to problems as diverse as enrollment in the CALS and telecommunication in rural India.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisors: Linda Myers, Jane E. Hardy.
They Shoe Horses, Don’t They?

What is a farrier? A blacksmith, or a man who shoes horses. “Horseshoeing is interesting; the rewards are more than just money - you make a horse feel more comfortable, and it’s a good feeling,” said Marshall Conklin, head and only blacksmith of the Cornell University program.

It isn’t unusual that most people do not know what a farrier is. The program at Cornell is part of the New York State College of Veterinary Medicine, yet few realize there is a blacksmith shop located next to the Large Animal Clinic on Route 366.

Three times a year, for 16 weeks, Conklin “takes only the most dedicated students who want to be full time farriers.” At the end of their training, the students, having spent four months in the University, receive a certificate of completion that says Cornell University, but they never get college identification.

There are about fifty programs registered with the American Farrier’s Association throughout the United States; 12 in California alone, but New York has only this one. The two students enrolled this semester gave similar reasons for attending the program. Troy Mishaw, from New Jersey, said “Most programs have eight or nine guys; this one has only two. It’s more in-depth, that’s the reason why I drive all the way up here.”

Joe Fazzolari, who comes from a Standard bred farm in Buffalo, agreed, saying, “You learn more with two instead of ten.”

After graduating from the program, most of the students go out on their own, though a few apprentice themselves with an established blacksmith. They are well prepared, as Cornell get all types of horses to be shod - Appaloosas, Hunter-Jumpers, Morgan, Standardbreds, and workhorses. Conklin said a blacksmith may specialize, such as in shoeing only workhorses.

The Budweiser team, used in parades and commercials, pays traveling expenses and $250 per horse to be shod. The problem with draft horses, and other breeds, Conklin said, “is that when they were used as work animals they were well-trained, but now they are kept around as pets, and they don’t stand well to have their feet worked with, which is hard for a lot of shoes.” The trouble with many horses today is that they are born and raised in a box stall, and they no longer know how to fend for themselves.

Cornell does mostly pathology shoeing for lame or crippled horses. For show horses, some of these problems come from using an extended gait in the showring, instead of the natural climbing motion a horse in the field would have. Conklin makes most of his shoes by hand because of this specialized shoeing, “You make a horse walk away feeling better, and you feel better.”

There are plenty of suppliers for pre-stamped horse shoes and other equipment, but Conklin buys most of his materials in raw form, except for nails. The range of shoes to be made, in size and style, is displayed in glass fronted cabinets around the shop. There are several hundred chrome plated shoes from softball sized pony shoes to volleyball sized workhorse shoes, all made by Henry Asmus in the 1930s and 40s. Asmus preceded Gene Lattin at Cornell; the program was begun by Lattin in 1955.

The basic tools of the trade, the hammer, anvil, forge, and the farrier’s arms and back still remain the most used, but at Cornell there is more specialization. Conklin used a small power drill to relieve the pressure of an infected abscess in a foaled horse’s hoof during the interview.

Shoeing horses since the 40s, and shoeing them at Cornell since 1976, Conklin said he had no problem with his back. This is a common affliction of farriers, and anyone else who spends half his working hours bent double. He said “I’m glad to pass on my experiences to them so that the younger fellows can learn the trade quicker and easier.”

Marshall Conklin, head blacksmith at Cornell, at work in his shop.
Not all of the projects associated with the College of Agriculture and Life Sciences can take wing, but at least one, The Peregrine Fund, is taking wing, feather and talon and soaring to success.

Under the aegis of Prof. Tom J. Cade of the Laboratory of Ornithology, Cornell biologists started to breed peregrine falcons in captivity in 1973. The once proud peregrine, used for hunting for centuries and able to dive at prey at speeds of up to 200 miles per hour, was unable to reproduce in many areas of the United States during the 1950s and 1960s because of the insidious spread of pesticide residues.

After several years of hatching and breeding the falcons in Cornell's "hawk barn", Cade and his associates released young falcons at various sites in the east in 1975. In 1980, a pair of Peregrines mated and produced young along the coast of New Jersey. And now, in 1985, as many as 38 pairs of falcons have been observed in eastern states, according to the Peregrine Fund's spring newsletter.

The fund is not active just in the east. Its repopulation program operates breeding laboratories in California and Idaho, as well as the original facility in Ithaca.

According to Phyllis R. Dague, administrative assistant of The Peregrine Fund, the program will be consolidating part of its operations at the World Center for Birds of Prey in Boise, Idaho.

"The move will help us avoid duplicating costs such as shelter and food for the falcons," said Dague. The falcons require a diet of chicken and quail that have been carefully raised to ensure the absence of the pesticides that caused the original decline of the falcon population. By moving, the program will save the costs of maintaining two facilities.

The strong and majestic peregrine falcon may be facing new life.
according to Dague.

Even with the cost of shipping the birds to their various release spots throughout the country, Dague said the move will still save the Fund some of its most precious resource—money.

“We have a budget of about $350,000, and about half of that comes from private contributions,” she said. “One quarter comes from the Fish and Wildlife Service’s endangered species fund, and the other quarter comes from foundations like The National Audubon Society.”

Although many of its staff members are Cornell faculty, Dague said the Fund’s relation to the University is an indirect one.

“Cornell takes care of the overhead of the operation, such as paying for the lights and the heat of the offices, and supplies chicken and quail from the poultry science department,” she said. Despite the consolidation of the breeding facilities, the administrative offices of the Fund will stay in the College’s Laboratory of Ornithology’s observatory on Sapsucker Woods Road.

Although its contribution may only be peripheral, the College can still take great pride in the success of the program it helped hatch. The Peregrine Fund projects that by 1990, more than 200 pairs of falcons will be nesting east of the Mississippi, a figure close to the number of known nests before the introduction of DDT, the pesticide most often blamed for the demise of the falcon in the U.S. If this figure is achieved, the Peregrine could be removed from the Endangered Species List for the Eastern United States.

To reach this goal, however, biologists will have to work steadily at releasing the birds into the wilds of both the mountains of the northeast and the skyscraper canyons of cities. Peregrines are cliffnesters, and have found homes in locales as diverse as communication towers in Virginia and office towers in Baltimore and the Verrazano Narrows Bridge in New York City. In fact, one of the birds, Scarlett, inhabited the 33rd floor of the United States Fidelity and Guaranty Building in Baltimore for seven years. Her fame earned her an obituary in the Baltimore Sun upon her death in September, 1984.

If all the released falcons earn the respect that Scarlett did, The Peregrine Fund—and the College—will be able to take a bow.

Two generations of peregrine may be a common sight in the future.
"Old McEzra had a farm,  
And he named it Cornell."

This is a popular chant used by Ivy League students to tease Cornellians about their school’s agricultural programs. What these people don’t realize is the phrase has its basis in truth. Ezra indeed owned a farm, on which, today, the University he founded, stands. And on this farm, Ezra Cornell kept . . . CATTLE!

Ezra Cornell, as part of his endowment to the University that bears his name, donated his 207-acre farm to be used as land for the University. The original farm lay between what is now Judd Falls Road and East Avenue, and extended down to where Willard Straight Hall stands today. The land where the College of Agriculture and Life Sciences is comprised the eastern part of the farm.

Ezra Cornell kept a herd of North Devon and Shorthorn cattle on his land beginning in 1857. He maintained a barn for livestock and cattle where Rockefeller Hall now stands. When Cornell donated his land to the University, the herd was included in the endowment.

These facts and many others are chronicled in The History of Beef Cattle at Cornell. The book was written by Kenneth Tillapaugh, who served as the College’s beef cattle manager from 1946 until his retirement in 1983. Tillapaugh said he wrote the book at the urging of his supervisor, Prof. Dan G. Fox, because “Nothing, as a unit, was written about beef cattle at Cornell.”

Although the College began general agriculture programs in 1874, the animal husbandry department was first founded in 1904. The department had teaching, research and extension programs.

The first purebred breeding cattle at Cornell were given as a gift by Albert K. Mitchell ’18, while still a student here. In 1917, Mitchell gave two Hereford cows and two heifer calves to the College. The department head at the time, Prof. K.J. Suelke, was not at all happy with the donation. “He looked at New York as a dairy state, not as a beef cattle state,” said Tillapaugh.

The beef cattle program went through a major period of expansion during the 1930s. In 1931, thanks to the efforts of department head F.B. Morrison, the New York State Legislature appropriated $100,000 to build barns for teaching livestock classes.
and to start herds of the major breeds of cattle. The beef cattle barn was constructed near the apple orchards and vet school in 1932. Previously, the livestock were kept in barns on small, Cornell-owned farms near the campus. Some of these barns are still in use today.

Room for pasture has always been a problem for the beef cattle program. “As Cornell expanded,” said Tillapaugh, “the land was needed for other uses. Then we were moved from these pastures to other areas.” During the late 1940s, the department had six acres where the Wilson Synchrotron now stands. The pasture had to be relocated because of the construction of the agricultural engineering building. The area around Forest Home Drive was also used as pasture, but it too was taken over, due to the expansion of the Cornell Plantations. The pastures were moved further out, to the Game Farm. However, because the poultry range on North Campus had to move due to the expansion of the Cornell golf course during the late 1950s, the cattle had to give way to the chickens.

Today, most of Cornell’s cattle are located at the Beef Cattle Research Facility in Harford, about 15 miles east of campus. Opened in October 1977, the facility includes 800 acres for pasture. The major building there contains pens for different sized cattle and an area for animal feeding research. In 1979, the facility expanded, taking over a nearby dairy barn to hold more cattle. A 150-acre land area adjacent to the barn is used for pasture research.

The practice of artificial insemination was started at Cornell on a small scale during the 1950s, on an experimental basis. Today, the beef cattle program keeps very few bulls in residence. Instead the department obtains semen from well-bred sires. This enables Cornell to produce superior beef cattle.

Tillapaugh said he expects the beef cattle program and industry will continue its expansion. The industry has been able to respond to setbacks by producing leaner cattle with less fat. Tillapaugh says Cornell has shown breeders how to be more efficient, and more part-time farmers will start keeping beef cattle.

Although the job of Beef Cattle Manager is hectic, it is not without excitement. Mr. Tillapaugh remembers the time, around 15 years ago, when a van crashed through a pasture fence on Judd Falls Road, late one evening, letting the cattle loose. Tillapaugh says he got a call from public safety officers telling him that his cattle were roaming around a cemetery. Tillapaugh managed to gather the cattle. Fortunately, recalled Tillapaugh, the cemetery ground was hard.

Tillapaugh feels Cornell has developed an excellent program for beef cattle. The program has “Consistently had professors in the department who have had, as their goal, to assist breeders in New York State and the northeast, with more efficient, better ways for producing cattle,” said Tillapaugh. “ Breeders in New York State look upon Cornell as a leader in this area.”

When walking down Tower Road on the Cornell campus, one will see academic buildings on one side, open fields on the other. Just a generation earlier, these fields may have been used for pasturing Cornell’s impressive herd of beef cattle. And long ago, before any student trudged to class, Ezra Cornell trudged to class, Ezra Cornell owned a farm where only cattle roamed.

Cornell cattle at the university-owned research facility in Harford, New York.
There is nothing more natural to eat than a fresh garden salad topped with ripe, luscious, red tomatoes. Or is there?

For healthy Americans who cherish love affairs with precious diets, it may come as a great surprise that vegetable crop technology takes place in artificial soils in greenhouses in addition to nutrient-rich farmlands. By growing vegetables in controlled environmental conditions, researchers develop techniques that allow production of these food staples in varying climatic conditions.

Artificial growing media have taken many directions since their introduction many years ago. At Cornell University, growing media called the Cornell Peat-Lite Mixes were developed by Professors James W. Boodley and Raymond Sheldrake Jr. in the early 1960s. While it has been 20 years since the introduction of these media, the Department of Vegetable Crops in Cornell's College of Agriculture and Life Sciences is still actively testing and analyzing artificial soils.

Under the direction of Professor Leonard Topoleski, greenhouse experimenters at Cornell test the productivity and growing potential of many commercially available artificial soils. According to Topoleski, no foreseeable grandiose plan that will revolutionize growing techniques and solve world hunger problems exists. However, research at Cornell can help commercial growers determine which media are the most productive and why.

Sphagnum peat moss with vermiculite or perlite compose most artificial soils. For example, the Cornell Peat-Lite Mixes contain 50 percent peat moss with the remaining 50 percent either perlite or vermiculite. Manufacturers generally incorporate inorganic fertilizers, usually lime, superphosphate and micronutrients, into the artificial mixture.

According to Topoleski, media such as the Cornell Peat-Lite Mixes enhance the growing potential for many vegetables and other greenhouse plants.

"Greatly increased yield in greenhouse plants grown in artificial mixes has been widely documented," he said.

Artificial soils such as peat and bark mixes offer commercial growers three main advantages over conventional soils, according to Topoleski. Most importantly, premanufactured mixes provide greater consistency of medium than natural soils. Free from diseases, insects and weeds, artificial soils ensure commercial growers that their crops will be inert during the highly critical planting period. Peat mixes also eliminate the problems of maintaining consistency in pH and mineral content, which is difficult to determine or control in natural soils. In addition, peat and bark mixes have the advantages of excellent water holding capacity and drainage as well as the practicality of being extremely lightweight and portable.

However, all of these advantages have not made vegetable production in artificial media an explosive venture in the United States. "Regional glass or greenhouse production is present and important, but it is and will only be a fraction of the total vegetable crop in the United States," Topoleski said.

Abundant and fertile agricultural lands in the United States provide vegetable crops year round. Artificial media have their roots in European and Canadian growing circles where vegetable production is more restricted by seasonal climatic fluctuations.

In these countries, the cold climates in winter months effectively eliminate farm vegetable crop production for half the year. They do not have a Florida or a California to provide crops in the winter. According to Topoleski, increased government subsidization for alternative crop production in Europe and Canada makes the commercial use of artificial mixes such as Oasis and Grodan more economically feasible.

Topoleski, however, does not foresee increased use of artificial soils by commercial growers in this part of the United States. "I do not imagine that we have more than 20 bonafide vegetable greenhouse growers in the state of New York. The limiting factors in the northeast that make mass vegetable greenhouse production relatively unfeasible are the cost of heat in the winter and poor natural light," Topoleski said.

While we probably will not see the day when most of our garden vegetables are grown in artificial soils, these growing media have greatly reduced the costs and difficulties of growing transplants and mass producing ornamental flowers such as poinsettias and chrysanthemums.
You open a box of cereal one morning, expecting to find the usual plastic toy hidden in the crumbs at the bottom, and instead you find a genuine Mickey Mouse watch! Now, before you rush to the nearest grocery store to purchase your own box, be warned that this was simply an example of what could happen in the future, if advertisers heed to recent research published by Mark deTurck, an assistant professor in the communication arts department.

"The research that I have done and the study I am currently working on indicate so far that if you establish a certain reward expectation among people, and then give them a little more than they expected, their attitude will then become more favorable toward the issue at hand," deTurck stated.

His study deals with the effect of rewards on attitude change. An important factor in his research is what he calls the subjects' reward-expectations. To illustrate how reward violations can affect attitudes and motivation, deTurck used the example of a waiter, Maurice, who received a 20 percent tip from one patron of his restaurant, and a ten percent tip from another patron. According to deTurck, Maurice's expectations were positively violated by the 20 percent tip because he expected only 15 percent, as is the norm. Maurice's expectations were negatively violated by the ten percent tip. DeTurck hypothesized that in a situation such as

Just Rewards

by Ann Madigan ’87

Maurice's, the positive violation of one's expectations would lead to a positive attitude about the task being performed (in this case, waiting tables).

One of deTurck's experiments involved Cornell students who had been pretested on certain issues, and were found to be for or against raising the drinking age to 21 nationwide. They were all told that they would receive three dollars for participating in the study. The subjects were placed in one of three groups: negative violation, in which they were told that they would not receive the expected three dollars; positive violation, in which they were told they would receive six dollars, and a no violation control group.

The subjects were asked to write an essay which was in favor of the 21-year-old drinking age. For some subjects this was what deTurck called proattitudinal, and for others it was against their beliefs, or counterattitudinal.

The results showed that subjects who received more reward than they expected experienced a significant change in attitude in favor of the nation-wide drinking age. Those who had previously been against the drinking mandate, who had written counterattitudinal essays, experienced the greatest amount of attitude change.

DeTurck said that the real life applications of his research are quite practical. "How rewards effect attitude change can be applied to two major areas of everyday life." The two he cited are a person's work environment and the education system.

"Ideally," deTurck said, "you want rewards to increase people's attitudes toward their work, whether they already like their job or not." This is the reason for the pro- and counter-attitudinal factors in the study.

"Education," deTurck said, "is similar to a working environment in that students go to school every day much like people go to jobs every day. They have tasks they must work on—some of which they like and others they don't like."

DeTurck said that past research has dissuaded educators from using rewards, due to the detrimental effects of extrinsic rewards on intrinsic motivation towards tasks. "I think you can structure the reward system so that the connection between rewards and the tasks is not so clear cut." He said that educators could set up a random reinforcement system so that students' expectations are positively violated occasionally. In his opinion, this would foster a positive attitude in students regarding the tasks they must perform.

The worker's bonus in pay, the student's occasional gold star and the Mickey Mouse watch in the cereal box are examples of positive violation of expectations. DeTurck warns that rewards must not be given often or people will come to expect them.

The real life applications and implications of Mark deTurck's research with rewards and attitude change are clear. Used in the work and education environments, these positive violations of expectations could improve both performance and motivation on certain tasks. As Maurice the waiter would certainly agree, a little extra reward goes a long, long way.
What does the future really hold for Cornell agriculture students who spend a minimum of four years of their lives preparing for exciting futures in agricultural economics, horticulture, agricultural engineering, or public relations? Many students really do not know for sure. Students spend four years reading and studying about their careers in books but rarely have the opportunity to study this information in a real life situation. As a result, graduates often find their careers to be not what they expected and sometimes, unsatisfying.

The Cooperative Extension Administration and Cornell Collegiate 4-H decided to challenge this problem by coordinating the 4-H Shadow Program in the spring semester of 1985. The Shadow Program enables students to meet with extension faculty members in the field of their choice in order to observe and perhaps take part in extension work at Cornell. According to Betsey Donnelly, one of the 1985-6 Shadow Program coordinators, this work experience provides students with first-hand exposure to a field and looks great on a resume.

In its first year, "The Shadow Program was a success," said Donnelly. "We got a lot of positive feedback from both parties." She said she feels the program allows a student to ask questions about the careers, get a foot in a career door, and obtain references by working with the extension faculty members. In addition, the faculty members could provide helpful information for a student interested in entering their field.

Donnelly said there was no trouble getting extension members to give some of their time to the students. "Many extension agents want to explain their jobs and help the students." The students were interested in a variety of fields ranging from horses to public relations to economics and the coordinators were able to find extension faculty members for all the interested "shadowers".

The Shadow Program is open to any agriculture and life science student, not just to 4-H members. Donnelly said the easiest way to get involved, however, is to go to a 4-H meeting and ask about the program. There is no obligation to the 4-H club, however, the Collegiate 4-H club membership is open. Donnelly said, "We at the Collegiate 4-H level, over the age of 19, are more oriented toward careers, what comes after Cornell. We do not do club work though we do do service projects and work with some clubs downtown."

In 1985, to get the Shadow Program on its feet, everyone involved as a shadower was in Cornell Collegiate 4-H. Donnelly said, "The program has not been publicized too much so far because it is only the second year and we are not quite off the ground yet." She did add, however, that "We are looking for the people if they are looking for us."

The requirements for 1985's program were simple. Each shadow participant was asked to spend a minimum of ten hours with the faculty member at any time over a one-and-a-half month period, however many spent much more than ten hours. During this time they assisted in materials development and review, participated in service training, assisted with conducting on-campus activities, observed faculty, staff, or committee meetings and more. The shadowers were asked to report their experiences orally during a seminar for the Extension Administration at the end of the one-and-a-half month period. The third requirement was to submit a short summary of
the experience including with whom they worked, what they did, and what their reaction was to the program.

Donnelly said, "We are not planning on many changes in the program this year." The coordinators are, however, attempting to make the time commitment 15 hours over a period from November 4, 1985 until March 1, 1986. They are also working to involve more extension agents and students who are not in 4-H.

Jennifer Morrill, Vice President of the Collegiate 4-H Club and one of the first involved in the Shadow Program, said she thinks the changes are good. Having the program divided between two semesters provides for ease in scheduling 15 hours of time with the extension member. She also agrees with the increase in time from 10 to 15 hours because much more can be accomplished and the first hours are warm-up time in order to get to know each other.

Morrill shadowed Steven Goggin of the human development and family studies department. During her one-

... and-a-half month period, she met with Goggin and talked about the use of his human development background in his career and in extension. Morrill predicts she will use her education in extension 4-H or consumer affairs. Also during her term, Morrill attended a state staff meeting and the spring agent faculty meeting on human development where programs available to New York state were publicized. Morrill said, "I learned a lot about human development resources in extension and I used them this summer as a 4-H assistant in Madison County. I met more human development faculty and felt comfortable calling on them for resources this summer."

Morrill is planning on participating in the Shadow Program again this year. "I'd like to shadow someone in the human development department again or anyone in extension because I think it is an interesting way to see extension work."

Morrill recommended the program for people who know about extension and are interested in extension work. However, she also recommended the program for people unfamiliar with extension. Her convincing argument was, "It is a unique way to have a one on one relationship with a professor because classes are large here and it's really hard to get to know them. Also, it fits around your schedule!"

It is easy to get involved in the 4-H Shadow Program. Contact Betsey Donnelly at 257-7693 or George Preston in the New York state 4-H office, East Roberts Hall at 256-2231.
The reports of financial woe from the grape growers and wine makers of New York state are not just sour grapes. For the past few years the state’s grape and wine industry has experienced crop over abundance, decreasing prices and shrinking markets, leading to serious economic problems and even bankruptcy for some state grape farms and wineries.

According to Prof. R. Brian How, agricultural economics, problems in the wine industry started in the late 1960s. “At that time everyone was very optimistic about selling wine in America and Europe,” he said. During the early 1970s grape farmers throughout the world planted large crops, thinking that wine consumption would increase in the next several years.

Then in June, 1976, the Farm Winery Act was passed by NYS which reduced the license fee for establishing small wineries. “If they grew the grapes themselves the license fee was very minimal,” Prof. George L. Casler, agricultural economics, said. The Glenora Winery is one of the first small wineries established then. As a result of the new law more than a dozen wineries have sprung up in the Finger Lakes region.

At the beginning of the 1980s, however, all the grapes planted by the optimistic farmers throughout the world were ready for harvest. The result was an over abundance of grapes and wine, but not enough of a demand. Governments of European countries such as France and Italy began granting subsidies to their grape farmers for shipping wine to the U.S. How said, “Europeans can sell wine much cheaper in New York City than New York wine makers can.”

All the small wineries which sprang up as a result of the Farm Winery Act found themselves with fewer and fewer buyers for their wine and fresh grapes. David Cooper M.S.,’81 in his thesis, “Some Economic Aspects of Small Wineries in New York” said, “The wine boom of the late 1960s and early 1970s clearly benefited the New York wine industry but by 1975 the over-abundance of wine grapes and the high levels of inventory in California had started to exert a depressing effect on New York production.”

Today some small grape farmers and wine makers find they can no longer survive financially with a limited area of distribution. “But they’re not large enough to tackle expanding much beyond the western New York area and as they grow in number they need to expand. That’s very difficult to do for a small winery,” How said.

Casler agreed. “Most of these small wineries have had financial problems of some kind. It hasn’t been a get-rich-quick scheme for any of them.”
Another, more recent, setback for New York state grape farmers and winery owners was the Taylor Wine Company’s announcement in August 1985 that it would cut its New York grape purchases by about 90 percent. “The growers had talked Taylor into paying a premium price for New York grapes based on the argument that the cost of growing them was so high. But it became apparent that outfits like Taylor could just buy grapes and juice cheaper in California than in New York,” Casler said. New York grapes that Taylor bought last year for up to $400 a ton, will only sell for $105 a ton.

For the grape farmer who heard Taylor’s announcement in August it was a little late to take action. Grapes had already been pruned, sprayed and were waiting for harvest. But next year small grape farmers may not be as enthusiastic about working on the vines. “The grape farmer may just not bother pruning the vines. It’s just not worth it,” Casler said.

So, what is the medicine for the ailing grape and wine industry? “What is needed is a drastic restructuring of the industry. And, unfortunately, some grape farmers will either have to move to other types of agriculture or be absorbed by farms producing other crops,” How said.

Casler pointed to outside sources of income as another alternative available to grape farmers and wine makers. “They’re going to take jobs off the farm, or the wife will take a job off the farm,” Casler said.

To restructure the industry How emphasized developing new products and creating new markets. “We really need to explore new grape juice products. This is not just a short-run problem situation, so we might need to organize growers and retrain them for other kinds of businesses,” he said.

The future of the grape and wine industry, however, is not completely black. Both How and Casler cited examples of new product development and innovative marketing techniques. “There are several places in the Finger Lakes region that sell grape juice and grapes to home wine makers. Some of these people sell more juice than the small wineries sell wine,” Casler said. The National Grape Cooperative, under the brand name of Welch’s, has recently introduced a product line of squeezable jams and jellies. Many of these fruit spreads are made from Concord grapes.

New York state grape growers and wine makers do have some economic problems, but the industry is far from becoming extinct. Casler offered some simple advice for the financial health of grape farms and wineries across the state: “Drink more New York wine!”
Cows produce milk, and farmers ship this milk to creameries where water and some sugar are extracted and the remainder is made into cheese. For years, there have been no substantial changes in this process, aside from a steady improvement in milk production efficiency and more sanitary conditions. However, the Food and Drug Administration (FDA) is currently considering the approval of a method that would greatly diminish transportation and refrigeration costs as well as create a "free" feed for cows at the same time.

The method is called "ultrafiltration" (UF) and the basic goal is the removal of one-half or more of the water in the milk, along with some sugar and salt, before it even leaves the farm. This is accomplished by heating the milk, then pumping it through a sieve-like device that, according to Dr. Robert Zall, Professor of Food Science in CALS, is like "an artificial kidney."

In 1969, Zall was project director of the first UF processing plant in the United States. He has since done extensive research and testing on UF membranes all over the world.

If these membranes could be used on the farm, farmers, cheesemakers, and consumers would be able to save virtually millions of dollars, Zall believes. The truth of this statement is currently being tested in Lodi, California at the Adam Van Exel dairy farm, which has about 900 cows among its assets. Zall was the director of the project which began in July 1984.

Funded by Dairy Research Inc. and the California Milk Advisory Board, the $750,000 project included an advisory board made up of professors, farmers, and representatives from the milk industry.

Zall said that as director of the project he purposely invited "people to the advisory board who didn't believe in the project. We started out with many divergent opinions," he said. The results were encouraging. Zall and his associates found that the UF process could create both a 2:1 concentration of milk directly on the farm, called the retentate, and the permeate, a nutritious liquid that could be fed to cows. According to past research done by Zall, this liquid may someday be a viable beverage for people as well.

The farmers send the concentrated milk to the creamery. They are therefore not paying for the refrigeration or shipping of 50 percent more water. The creamery saves on rennet costs and labor, which lowers the fixed cost for cheese production.

"We produce about 140 billion pounds of milk per year in the United States," Zall said. "One-third of that goes to cheese. With the UF process the difference in the cost of cheesemaking could mean almost one dollar per hundredweight (100 pounds) of milk," he noted.

Although FDA approval is still being sought for this on-the-farm method of milk separation, Zall feels that there should be no problem obtaining it. "As of yet, no one has given the FDA 'mass balances,'" he said, meaning the figures on the distribution of various components of milk throughout the UF method.

As for encouragement, results of tests done so far show no evidence of any substantial difference in the cheese made from UF processing. This includes no changes in chemical properties or normal fermentation, as well as no effect on taste, color, or texture. The only changes Zall foresees as a result of the UF process on the farm are those that will challenge and alter traditional cheesemaking processes.

While the California project will continue for a few more months, Zall has since returned to Ithaca. He is currently in the process of forming a consortium with Cornell, New York State, the dairy industry, and UF equipment manufacturers, that will test the UF process on New York farms.

They plan to test out at least three different types of UF equipment among the ten farms on which the project will be conducted. The goal of the study is to determine the added value of the UF process in the cheesemaking industry, and evaluate what kind of impact it will have on the consumer market.

Zall is not shy with this enthusiasm about the current UF breakthroughs and the effect these devices may have in the future. Although his group at Cornell has tested UF devices at its 400-cow dairy research center in Harford, New York, the California project was the first time a "day-to-day" system was used on the farm. He firmly believes that if something can be done in a better way, then every measure should be taken to insure that it is.

"Everybody is penalized when things are not efficient," he said. "It makes 'sense' and it makes 'cents' — and it is much better to share in profits than in losses, don't you agree?"
Feed the World. In the past year that phrase has become the slogan for many of the relief groups trying to raise money to alleviate world hunger. In fact, it has become almost "fashionable" to donate to one or another of these groups, and the donations have been used to buy food and supplies for the starving people in developing lands.

But what happens when the novelty of this cause wears off? Where will the people being helped now, be then? Unfortunately, the probable answer is right where they started.

It does not have to be that way. Training the people of these countries to increase the productivity of their main resource—the land—is one possible solution. And who better to act as teachers than nationals of staff and provide assistance and expertise to institutions in other countries."

Last year, 343 students from 74 foreign countries attended the ag college at the graduate level. Seventy-four percent came from developing countries, and 186 had a professional interest in international agriculture.

Oyer stressed that international agriculture is a program, not a department. IA faculty are members of discipline departments in the University, and the Masters of Professional Studies is the only degree available in IA.

However, there are 10 Cornell faculty members who have almost 100 percent responsibility with international agriculture. Dr. Thomas Poleman, agricultural economics, is one of them.

According to Poleman, the Ford Foundation gave Cornell a grant in the 1960s to fund several professorships to work exclusively in international agriculture. This grant enabled the College to build the solid foundation that now supports the IA program.

Poleman believes that international students choose to study abroad at the graduate level because the universities in their own countries are not yet as highly developed as those in the United States. They specifically choose Cornell for a number of reasons.

First, Cornell established a well-deserved reputation for excellence in international agriculture before World War II. Children of wealthy Latin American landowners chose Cornell because it was an Ivy League agriculture college. Cornell also was linked with the development of the University of Nanking's agriculture college.

Immediately after the war, Cornell professors helped reconstruct the University of the Philippines.

Cornell's Ivy League environment, and the fact that all the colleges share the facilities are two other assets that attract foreign students. "The colleges all complement one another," Poleman said.

Finally, "the wealth of knowledge" provided by Cornell's immense library system is such a plus that Poleman said, "Libraries in the developing countries pale in comparison."

Gregory Thomson, '86, a general agriculture major in CALS, also mentioned the libraries at Cornell as a great asset to international students.

Thomson, a native of the Caribbean island of Curacao, hopes to return to his country after graduation to help

INTERNATIONAL STUDENTS: Working from Within

by M. Elizabeth Farrell '87

the country itself; persons who have gained knowledge of the latest technology in an accredited college.

According to Dr. Edwin Oyer, director of the International Agriculture Program in the College of Agriculture and Life Sciences, "You can help the people in Ethiopia and Sudan by giving them food, and that averts a disaster. But in the long run, what's going to solve their problems are people within the country that increase the capacity for food production."

The International Agriculture Program was established in 1963 by a faculty committee. Its main aims and objectives, as stated in the "State of the IA Program- III, 1985", are:

"To enhance the educational programs of the College by providing greater breadth of perspective and expanded experience in the resident
At the edge of India’s G.B. Pant University of Agriculture and Technology, people used to hunt wild pig and look out for tigers,” according to Dr. Royal Colle, professor of communication arts. What a different picture this presents when compared to the outskirts of Cornell’s own ag college.

Colle is the key consultant in a project designed to help India to support its nation’s food production by strengthening its agricultural communication facilities. Several other Cornell professors have been instrumental in the ongoing project which began in 1969 and is presently spanning 25 years.

The Centre of Advanced Studies in Agricultural Communication, or CASAC, promotes the adoption of new technology, by improving the dissemination of agricultural information to farmers. With an Indian roster of 20 persons who have specializations in communication, anthropology, rural sociology and extension, CASAC will provide leadership and models for the other 22 agricultural universities in the country.

Visiting professors and consultants from Cornell and other U.S. and overseas institutions have assisted the Pant University staff in areas of communication research and planning, while helping to set up the actual audio-visual equipment and radio and television facilities essential for the broadcasting of relevant information.

“Media will increase the effectiveness of information diffusion, filling gaps left by the conventional extension services,” said Colle.

Although extension services in India act as agents in technological transfer, they are weak in the area of spreading these strategies to the marginal farmers. Women are traditionally overlooked as active agriculturists by the primarily male extension staff. The radio and television services being set up by CASAC are impartial to gender or age and can reach great numbers of people in a short amount of time.

Cornell communication arts professor, William B. Ward was the first agricultural communication consultant to visit Pantnagar in 1969 under a grant by the Ford Foundation. The earliest use of electronic media there began when groups of farmers would gather in the village to hear regular radio broadcasts. In the 1970s, similar television forums were developed in some parts of India. The university is exploring their use in connection with the vast expansion of rural television transmitters.

“TV had a tremendous appeal to the villagers, since the business of visual presentation was fairly new to them. Farmers there would gather in the square and watch the programs, sometimes seeing other farmers on the TV screen practicing suggested methods in the fields,” Ward explained. Today with satellite broadcasts available in India, there is great opportunity for air time, but a lack of trained creative people to produce these programs.

On a visit to Pantnagar 18 months ago, Colle said there were less than a dozen TV transmitters. This past August, however, he found that there are 170, with the recent average of one going into service per day. With such advances, a National Agricultural Telecommunications System (NATS) moves closer to reality.

“NATS” is what Colle calls the dream of CASAC. “There is a great deal of potential in India to create the dynamic agricultural communication system that can help move agricultural knowledge between scientists and the farmers who need to use it,” Colle said. “We know Indian farmers can grow three times the amount of crops on their land as they do today,” he continued. “There is a startling gap between their present yields and what they can be producing.”

When he first visited Pantnagar, where the university was set up, he encountered a town whose shopping...
center was no bigger than Cayuga Mall of Ithaca. "There was no such thing as a movie theatre or a bowling alley and the nearest market town was 10 miles away," he said.

Colle's younger children attended the only local school, run by missionary nuns. By the age of eight, the worldwide average shows that most children of marginal farmer families begin to work in the fields. Therefore, there was no school available for his 14-year-old daughter, and she engaged in her own cultural studies, such as learning about the arranged marriages in the village and bargaining in the market place.

Indian faculty members tended their rice crops in their yards much as Americans would grow grass. However, the Colle's yard in Pantnagar served as a volleyball court for after hours matches with students and faculty. The Colles adapted to the vegetarian Indian diet, since this was the pattern in that part of India. "One has to walk into such situations with the flexibility to meet all circumstances," Colle explained. "We considered it a challenge to help carve a place out of the wild."

The group which CASAC is trying to reach are the subsistence farmers who, with proper information and training, could join the mainstream and enjoy some of the benefits of other rural people in the country. The farmers have survived for years with poverty, poor education, malnutrition and disease. The goal is to shift that circumstance to a better life.

The complexity comes in finding qualified people and other resources needed to train extension agents and others in the effective use of such things as video projects, radio broadcasts and other communication channels. The idea of making communication a two way system and getting information from as well as to a community seems to be a relatively recent approach in working with rural families.

Approval of the media concept from the Indian government is the first step, even before university trainees are challenged to develop the software for the satellite system. Yet, Colle explained, "Where at one time the Indian government had a monopoly over radio and TV, they are now encouraging outside agencies to produce agricultural programs in India."

"Remarkable progress has been made in terms of good production especially events in the last decade," said Prof. Ward. "For example, not long ago they were importing wheat and now there is a surplus."

"I'd be the last to say that communication alone will change agricultural patterns in India," said Colle. "The availability of water, seeds and fertilizer all play a major part, but one element is certainly communication."

Professors from Cornell, as well as from other American universities, will continue to act as consultants to Pant University faculty members until 1990. Colle emphasized that the use of the satellite and the development of "NATS", can be a significant benefit to the agricultural system and symbolically very important. "Pantnagar may even become a global village."
There is a fog of misconception surrounding the Peace Corps. To some, its members are long-haired, bearded hippies gallivanting through the jungle. To others, they are overzealous Tom Tuttes-from-Takoma-types as in the recent film “Volunteers.” In reality, Peace Corps volunteers are no different from ordinary college graduates except for an extra dash of motivation and community awareness.

In recent years Cornell has yielded a number of graduates who have served as Peace Corps volunteers in Asia, Africa and Latin America. Currently there are seven people working overseas, according to Frances Johnson of the Peace Corps recruiting office here at Cornell.

Acceptance into the Peace Corps follows a rigorous procedure. Applicants are carefully screened. The Peace Corps looks for distinguishing qualities in its applicants. Johnson elaborated, “We are looking for good-natured, flexible, motivated individuals with the initiative to start a project or pick up the pieces. We need committed people willing to share their skills overseas.” Most Peace Corps volunteers possess “scarce skills” in math and science. The Peace Corps primarily uses technically trained applicants. Johnson explains that “... countries are asking for people with a technical background to save the money involved in training costs.”

The technical focus of the ag college places Cornell graduates in high demand. “The number of applicants accepted from Cornell is larger than from most schools. This is not only because they possess usable training but also due to Cornell’s excellent record in the field. Peace Corps has faith in Cornell applicants. They are committed volunteers.”

One such committed individual is Nancy Conklin, ‘75 a CALS graduate. After Cornell, Conklin continued her studies at U.C. Davis and in 1977 obtained an M.S. in animal science. Conklin then joined the Peace Corps as a dairy cattle extension agent in Costa Rica until 1980. She is currently back at Cornell completing a PhD in livestock nutrition.

Conklin’s Peace Corps experience has strongly influenced her career decisions. “I arrived in Costa Rica with a Masters in environmental physiology but soon realized that effective livestock nutrition was a basic need of Latin American farmers. My previous work would be more useful in the U.S. where costly environmental controls may be used.” Conklin hopes to complete her PhD this semester and use her knowledge in international agriculture. She explains, “... my experience as a Peace Corps volunteer inspired me to continue in international agriculture. It has triggered a lifetime of contribution.”

Both Conklin and Johnson stress that the two years spent abroad, although short, is time well spent. Johnson explained that “In some cases little measurable evidence of accomplishment may be brought back, yet, a volunteer develops a rapport with his/her community and a concern for the country that facilitates later work both here and abroad.”

For those interested in international agriculture, Peace Corps is the best way to gain initial overseas experience. Many aid organizations look for Peace Corps experience in their employees. Johnson stated that “Peace Corps is seen as a base. Twenty-seven months spent overseas shows an applicant’s commitment and determination to complete an assignment. For a motivated person Peace Corps is an invaluable step toward a career in agriculture.” Ultimately, Johnson added, the Peace Corps experience depends on the volunteer. The amount learned directly depends on the effort expended by an individual. Only people eager to share and willing to learn from those around them will have a truly rewarding experience.

The Peace Corps office at Cornell is located in 222 Roberts Hall. Interested individuals may learn more from Frances Johnson. She is available from 12:20-2:30 p.m. on Monday and from 1:00-3:00 p.m. the remainder of the week in the Peace Corps office. Ms. Johnson is available by phone and may be reached at 256-2284.
CORNELL WOMEN'S POLO
HAVE MALLET, WILL RIDE
by Judy Zwolak '87

The smell of hay, mud, horses and . . . uh . . . horse droppings is familiar to those who frequent the John T. Oxley Polo Arena at Cornell University. To the Cornell Women's Polo Team, these are welcome aromas, for they mean the start of a season of hard work and long practices, which may lead to another first place finish in the USPA Women's Polo Intercollegiate Championships.

The women's polo team is one of the best in the nation, according to Caroline Hahn, '88, publicity director and varsity team member. The varsity team's record was 15-1 last season and they have won the intercollegiate championships for the past two years. Although women's polo at Cornell only began in 1972, it has become as well established as its male counterpart, which was founded in 1936.

Women's polo is played exactly the same as the men's game. Three players - an offensive player, a defensive player and a "pivot man" - maneuver the ball around a 30 x 80 yard arena in order to score goals, while sitting astride a pony. It seems simple enough, but a good polo player must have the phenomenal horsemanship qualities, athletic abilities and anticipatory skills to master the many "polo strokes" and strategies of the game.

The women who play polo have to be tough said Hahn. "At the collegiate level, it's not an exclusive, rich man's sport." If images of Prince Charles and Lady Diana cavorting in England have ever entered a player's mind, they are quickly expelled. Much of the time at Oxley is spent feeding and cleaning the ponies as well as maintaining the arena.

Since the women's intercollegiate team is a division of the Cornell Polo Club - a self-supporting, nonprofit organization - much of the funding for the team is raised by the players. They hold bake sales, horse shows, raffles and even clean stadiums after sporting events to raise money. Even though they are one of the most successful women's team at Cornell, Hahn said university backing is not adequate to cover their expenditures.

What is so special about polo that these women endure such hardships? "I go crazy when I don't have a horse to ride," said Denise Ross, '86. "Polo was why I came to Cornell." Like most of the women on the team, Ross had never played polo before but had come from an accomplished equitation background.

"I would never be able to learn to play elsewhere," said Sharon Bilotta, '87. She explained that she did not have the money to play at exclusive clubs. "I joined because it is a unique opportunity to play polo," she added.

Although practice is two nights a week, most players are at Oxley four or five nights a week, helping with the ponies and the arena. "We have to work harder than other teams," said Anne Broeder, '86, club president and varsity team member. The competitive season begins in October and championships are held in April.

Many of the players claim that the camaraderie of the team contributes to its success. Hahn said their success springs from "the dedication and enthusiasm of the players. At Cornell, we live for the game," she added.

Things are hectic at Oxley this year. The team is looking for a new coaching staff since Head Coach Danny Scheraga, '73, resigned last season and players are eagerly awaiting news about a new equitation facility at Cornell which might house a new polo arena. Yet all the cares and worries are alleviated as a player mounts the pony.

"When I play a chukker (a division of a polo game, lasting seven and one-half minutes), I forget about everything," said Broeder. "I have expended so much energy that I completely forget about school and taking the GREs. I just let loose."
Checking soil color on a Munsel chart.

If someone were to ask you to name several competitive teams, what would you say? You would probably think of a football team, a baseball team, a hockey team, and if you were imaginative, you might even think of a debating team. But one you might not think of, or even know of, is a soil judging team. At Cornell, the soil judging team, affiliated with the Agronomy Club, is a competitive, intercollegiate team coached by Dr. Ray Bryant of the Department of Agronomy.

The first question you might ask is what is soil judging? Soil judging is the science of examining a soil profile and interpreting it according to a specific group of characteristics. A soil judge will often interpret a soil in terms of its limitations. For example: could this soil support a house with a basement? If the soil has poor drainage, the homeowner may find himself with a leaky basement. On the other hand, he may discover that his land is a swamp and that his house is sinking several inches a year. A soil judge has the skills to determine these kinds of things in advance by examining the soil.

How does one become a soil judge? Here at Cornell, you can join the soil judging team. Basically, anyone who wants to be on the soil judging team can be — the only prerequisite is that you enroll in "Soil Morphology" (Agronomy 362), a one credit course designed to teach students how to judge soil. The class meets once a week for three hours, much of which is spent in the field examining different soils. "This activity, being such a field oriented activity, is becoming more recognized by the Soil Conservation Service," Bryant said.

Many people entering the field of Agronomy have a theoretical knowledge of soils but never have actually dealt with the soils themselves. Soil judging allows a student to gain practical experience before entering the professional world. On the academic side of the issue, soil judging helps reinforce what a student learns in the classroom. Dr. Bryant suggested that by having an activity such as soil judging, "We are introducing an academic competition to motivate students to learn something better." And the students do learn the subject better. Said team member John Lory, '86 "It really helps tie ideas together — you can actually see what the professor is talking about."

This year at Cornell, the soil judging team is composed of seven members. Coach Bryant said the interest level in soil judging is usually around seven to ten people each year, so he usually has a good number to work with. In an actual competition, one team is made up of four individuals. Each student examines four soil profiles. He records the information on a profile and is then scored by the officials of the contest. The lowest of the four scores is discarded and the other three are combined to give a total team score.

Soil profiles are found in pits. These
pits are approximately four feet deep and six feet wide. Inside a pit there is an area designated for measuring the horizons, or layers of soil. Horizons can be distinguished from one another by their difference in color.

There is another area where students are allowed to take samples of the soil. The students examine samples from each horizon and categorize them according to such characteristics as color and texture.

In learning how to judge soil, there is one very important concept that a student must come to accept. That is, there is no definitive right or wrong. It is all a matter of judgment. A student learns by comparing his judgment to that of his coach or his officials. Coach Bryant joked that there are two principles that a student must learn in soil judging: "1) the coach is always right, and 2) if you do not agree, refer back to principle one." Although said jokingly, there is some validity to this statement. The student has to trust that someone with more experience knows more, and is more likely to be right. Coach Bryant, who earned his BS and MSA at Texas Tech, and his PhD at Purdue University, has had fifteen years of soil judging experience. He has been the coach here at Cornell for four years. His students would be well advised to trust his judgment.

Cornell is part of the Northeast region which consists of twelve schools. This year's regional competition will be held at Delaware Valley College, Doylestown, Penn. The two best teams from the regional contest will go on to compete in a national contest in Colorado.

Coach Bryant mentioned that the soil in southern Pennsylvania is very different from the soil in New York State. Much of New York was covered by glaciers at one time; the glacial masses carried unconsolidated deposits as they moved across the land. When the glaciers receded, they left these deposits where they had been. The deposits eventually formed the soil that covers the glaciated areas today. The soil in these areas is approximately 10-15,000 years old. Soils in unglaciated areas were formed long before this. The soil in southern Pennsylvania is close to 100,000 years old. For this reason the soils in these two areas are very different.

When asked if this would affect the team’s performance, Coach Bryant said that the team may be at a slight disadvantage, having never experienced this type of soil, but that “the basic skills can be applied anywhere.”

Though a relatively unheard of intercollegiate activity, soil judging is quite active here at Cornell. Its members get hands-on experience that they will hopefully be able to apply upon graduation. Coached by Dr. Ray Bryant, the small contingent has a good opportunity to learn from a leading expert in this area. Hopefully this club will continue to grow in size and prestige among Cornell’s diverse collection of intercollegiate teams.
Interest in traditional agricultural careers nationwide has plummeted since the mid-1970s, but the New York State College of Agriculture and Life Sciences has managed to maintain a steady interest in its agricultural programs.

Officials at Cornell's College of Agriculture and Life Sciences note that the (small) number of their students pursuing farming careers, hasn't changed that much in the last decade.

Although the number of students going into farming following graduation has remained fairly constant since the early 1970s, there haven't been that many students pursuing "traditional" farm careers. Farm-bound students at Cornell comprise a mere 5% of each year's graduating class, according to Career Development Office spokeswoman Sharon Radcliffe.

Financial pressures and the realities of a competitive job market have prompted more students to pursue high-paying jobs with better opportunities for advancement. "If our students are going to be working more and more hours, they'd probably rather be making more money—and farmers aren't in a position to pay them," Radcliffe noted. "The general feeling that I get is that there's not as much interest in farming careers now as there once was," Radcliffe said.

Deepening financial problems continue to plague the nation's farms and fewer farm children are opting to live off the land. U.S. farm profits have ebbed to an unprecedented low (at least since the Depression) and many farm children—particularly from traditional midwestern farming communities—are feeling the need to return to the farm earlier, or, in many cases, never to leave the family farm in pursuit of a more formal education.

In 1983, slightly less than 8.5% of those students who graduated from agriculture colleges pursued agricultural disciplines. In 1984, only 7% opted for a career on the land.

With fewer students enrolled in the nation's agricultural schools, there is a growing concern that the next generation will have fewer farmers with which to fill agriculture's broad array of business, scientific and research needs. The number of retirements in agricultural research, industry and academia has created many vacancies. For instance, 25% of the teaching, research and extension faculty at land grant institutions will be eligible for retirement with the next four years. This, coupled with a steep decline in enrollments of more than 20% since 1977, has created additional cause for concern. Enrollment in agriculture programs at the country's 70 land grant institutions, which peaked in 1978 at about 98,000 students, last fall dipped to a low of approximately 77,000 students. Enrollment in two-year agriculture programs has dropped 50% in the past four years.

The College of Agriculture and Life Sciences has experienced a relative decline in appeal for traditional (production farming) courses such as agricultural engineering, animal science, plant science, food science and agricultural education, yet, the College has seen an increase in applications for the biological sciences, business management and communication arts, according to Director of Admissions Richard A. Church, '64.

Enrollment in the College of Agriculture is expected to remain relatively constant, at about 3,000 students, through the next five to ten years, as it has since the mid-1970s. The College, unlike most land grant institutions, maintains a fixed or set enrollment. While enrollments nationwide to agricultural programs have dropped off, as they have in the last five to seven years, Cornell has remained relatively immune to the declining appeal.

The trend towards declining interest in agriculture seems to be more predominant in the midwestern agriculture schools of Ohio, Kansas, Missouri and Illinois. Church points out, "We've had a fairly dramatic decline in the number of students enrolling in the College of Agriculture from the midwest."

"I have some sense that ag fields have declined in popularity," Church cautioned, adding however, that "students should not be unduly discouraged by this trend. After all, there are bound to be brighter days ahead."
Academic II Named

The recently completed Academic II building that houses the Department of Entomology and portions of Media Services has been named the John H. and Anna B. Comstock Hall by the Cornell University Board of Trustees. The new building is on Garden Ave. between Teagle Hall and Corson-Mudd Hall.

The name is being transferred from Comstock Hall on the agriculture quad to the new building because the trustees said they thought it was important to keep the name Comstock, one of the most famous names in entomology, with the Department of Entomology.

John H. Comstock created the first department of entomology in the country at Cornell during his tenure here from 1887 to 1924. He emphasized a close contact between teaching and research by professors and students, and close contact with farmers and problems in the field.

Anna B. Comstock was the first woman professor at the university in 1898. She established a nature studies program at Cornell and wrote “A Handbook of Nature Studies,” which has been through 20 editions and is considered to be a classic in the field.

The old Comstock Hall, and an addition now under construction, will house the campus telecommunications system’s switching and operations center as well as a portion of Cornell’s computing center. A new name for the building will be selected before the formal dedication ceremony, about one year from now.

Fuerst Scholarship Established

Friends and colleagues of Myron Fuerst ‘29 have established a scholarship in his honor to be presented to juniors and seniors in the College of Agriculture and Life Sciences who have demonstrated a desire to remain involved, as alumni, in the future growth of the College.

Fuerst, who earned his BS in animal husbandry and a minor in farm management, is president of Fuerst Brothers Inc. of Rhinebeck, NY, and is an agricultural marketing consultant.

Recognized nationally as a leader in the beef cattle industry, Fuerst has been active in the New York Angus Association for many years and is currently an advisor emeritus to that organization.

Fuerst has also been the New York representative for the National Cattlemen’s Association and was president of the North Atlantic Section of the American Society of Animal Science. He has also served as director of the International Beef Breeders, and the American Angus Association.

Fuerst was honored in 1981 with the “Outstanding Alumni” award presented by the College’s Alumni Association. He has been a member of the Cornell University Council and the College of Agriculture and Life Sciences Development Committee.

Gifts to the Myron Fuerst Scholarship Fund can be made through Glenn O. MacMillen, Assistant to the Dean, 242 Roberts Hall, Cornell University, Ithaca, NY, 14850.

Robert N. Perl ’86, a student representative on the board of directors of the Alumni Association of the College of Agriculture and Life Sciences and a Dean’s List student majoring in agricultural engineering, was recently awarded the Ralston Purina Scholarship of $750.

Perl, who comes from a dairy farm in Gainsville, NY, said he believes his studies will help produce “an abundant food supply both economically and efficiently” in the United States.

Perl is active in many programs involving agriculture. He is a member of the student branch of the American Society of Agricultural Engineers, and has been a leader in the Future Farmers of America. Perl is also active in the Agricultural and Life Sciences Ambassadors Program, and is chancellor of Zeta Psi fraternity.

Robert H. Foote PhD ’50, the Jacob Gould Schurman Professor of Animal Physiology, has been named the “1985 Distinguished Andrologist” by the International Society of Andrology and the American Society of Andrology.

Foote was presented with the award during the Third International Congress on Andrology held in Boston. Andrology is the study of male reproductive systems in humans and animals.

The first Cornell scientist to receive this honor, Foote was cited for his research in the areas of embryo transfer, artificial insemination and animal reproductive physiology.

Foote is a world renowned researcher and lecturer on animal reproduction, sperm physiology, insemination techniques, in vitro fertilization and ovum and embryo transfer techniques in various animal species.

Arthur Berkey, professor of education and a member of that department since 1967, has been elected president of the American Association of Teacher Educators in Agriculture. Berkey will hold the post for one year; in 1986, he will become president of the organization of university faculty who prepare teachers and university educators.

COUNTRYMAN CAPSULES

Student and Faculty Awards

George Gyrisco PhD ’47 has been named professor emeritus in the Department of Entomology.

A member of the faculty since 1947, Gyrisco is nationally known for his programs on the ecology and control of crop insects. His studies in basic insect biology and ecology, together with appraisal of the effectiveness of new insecticides, have led to recommendations to farmers in their forage crops’ insect control programs.

Gyrisco has written more than 200 publications and served as department head.
Dollars for Scholars
by Lisa Bornstein '86

$10,000, $20,000, $30,000, $40,000 . . . no this is not the price of a brand new sports car, but rather the price of something much more essential, a college education. The only way many students can afford a college education is with the help of student loans and scholarships. The federal government has been proposing policies that would cut back student loans. So many students have come to rely heavily on scholarships, fellowships, and other grants in order to afford a four year college education.

Many people think scholarships should be awarded to students based on academic achievement. There are many people who think differently and who consider financial need the major factor when distributing scholarships. In the College of Agriculture and Life Sciences, any student who is enrolled in the college, has good academic standing and shows a financial need is eligible for a grant.

Helen Wardeberg, associate director of instruction for the College, explains that if academic achievement were the deciding criterion, the top ten percent of a class would receive the grants and the bottom of the class would receive none. She said, “We identify those who have the financial need. It is the University’s policy that all students admitted and in good standing will have their full needs met.”

Statutory colleges, as well as the endowed colleges, have their own funds which can be used to supplement the self-help portion of a student's financial aid package. The ag college has a $2 million endowment for scholarships. This is the largest endowment of all the statutory colleges, followed by those of the College of Human Ecology, then the School of Industrial and Labor Relations.

Parental contribution, federal loans, Pell grants, state loans, TAP and summer savings are all taken into account when determining which students will receive the grants. The grants are specifically intended to reduce the loan portion of the self-help package. There are 160 different funds in the ag college. Some of that number are fellowships set up for graduate students.

The scholarships set up by donors, who are often alumni, family of alumni or friends of the College are very specific in terms of who is eligible to receive the funds. They can be career specific or geographically specific. For example, if a donor is from a certain county, he may require that the student receiving the grant be from the same county. If the donor was a floriculturist, it may be specified that the recipient be a floriculture major.

Glen O. MacMillan, '54, assistant to the dean in development, works with potential donors. Contributors can give donations in the form of either money or gifts. Gifts, for example, can be a farm or a piece of land. This can then be converted into money. Donors who are planning an estate can have it specified in their will that upon their death a predetermined amount of their estate will go to the College. Whichever way a donor decides to set up a fund, they are guaranteed, if they want, to specify how the grant can be used.

Most funds are set up in an endowment based on $10,000. This initial capital is invested and never touched. The income made from the investment is the money that is used to support the grants. Certain companies and corporations set up scholarships to benefit students in the ag college. These are independent of the College and not necessarily based on financial need. The company’s main purpose for these grants is to interest students in specific career goals. Unlike an endowment donor, they send awards on a yearly basis.

There are also external awards given out to students to help defray college costs. They could be from hometown Kiwanis Clubs, Rotary Clubs or small organizations. This money is usually given directly to the students who can use it however they want.

At Cornell University, there are competitive prizes which are not based on financial need, but awarded on the basis of talent. Some of the competitions are confined to students in a certain college or department, while others are open to students in any college or department. They range from public speaking competitions to prizes awarded to the three freshman who made the greatest advancement in calculus.

With the rising costs of a college education and the cutback of student loans, scholarships are indeed a great help, if not a necessity, to many. The donors to the College of Agriculture and Life Sciences have been extremely generous in their contributions which have benefited many.
On the Farm
ABOUT THE ISSUE
Americans have long prided themselves on the strength of our agrarian society. However farmers today are facing many problems, which are affecting their production, their welfare and their spirit. In this issue we discuss many of the difficulties of farmers this year, while we present the “growing” benefits we are receiving from their perseverance.

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Breaking into Farming

Bob Hanno '82 was born on a farm, grew up on a farm and came to Cornell to study farming. When he earned his BS in animal science in 1982, he found himself with student loans to pay and no capital to start the dairy farm he dreamed of owning. What's a young, intelligent, but broke aggie to do?

Simple: start at the bottom and work his way to the top.

"Farming is a business, just like anything else," said George J. Conne- man BS '52, MS '55 Director of Instruction for the College of Agriculture and Life Sciences and professor of agricultural economics. "If a recent college graduate wants to get started in farming, he or she should be ready to work up the agricultural ladder."

Hanno is a perfect example of a Cornellian who wanted to farm but had to earn enough of the right stuff—experience, reputation and money—to get the necessary loans. After graduating in December, 1982, Hanno returned to his father's dairy farm in Lowville, near Watertown, N.Y. He worked for his father for the next three years, raising a small herd of his own cows in addition to his father's 160-head herd.

After three years, Hanno had built up about $30,000 worth of equity with a 20-cow herd of his own. He and his father planned to form a partnership, with the senior Hanno holding the majority of the business. But last summer, the Hannos' barn burned down, taking one quarter of Bob's herd—and one quarter of his equity.

But the loss of his herd should not be a lethal blow to the younger Hanno's agricultural aspirations. According to Conne- man, experience and reputation are more important in getting the loans to start a farm than immediate equity. "Nobody is going to give a loan to an inexperienced stranger," Conneman said.

More and more young agriculturalists are gaining their farming experience by signing on as hired hands or as specialists with large farms or by becoming extension agents or credit managers, according to Prof. Kenneth L. Robinson MS '47, Liberty Hyde Bailey Professor of Agricultural Economics.

"Nobody could ever just start their own farm; it's always been too expensive," he said. "And once a person has enough money, it's like a game of roulette as to how much they're going to be in debt once they buy a farm. If prices are good, they'll be able to accumulate capital quickly and pay off the loans. If prices drop, then they might be in trouble."

The apparently hard times faced by farmers in 1985 doesn't seem to be dissuading young people from going into farming. Although the number of people employed in farming in the United States has dropped by 12 percent since 1971, according to the U.S. Department of Agriculture, more CALS graduates go into farming than any other field.

"There's no reason why a youngster shouldn't go into farming these days," Conneman said. "Sure, it's going to be tough, but it's always been tough. It was tough in the 1940s and it will probably be tough in the 1990s. Equipment was terribly expensive even when a farmer was using a horse and a wooden plow."

"I believe that if you manage a business well, you can make it no matter what the times are like," he said.

Good management got Bob Hanno and his father where they are today and it will probably get them where they want to go in the future. "We're not going to rebuild the burned barn; we're looking for some new land. Once we get it, we'll form our partner- ship," he said. Hanno is sure he will be able to get loans with his herd and his experience backing him up.

Lessons he has learned from his father and in classes such as farm management have helped. "We never spent much money in the 1970s when interest rates were low and milk prices were high, so we don't have the debts that are driving a lot of farmers out of business," Hanno said. The money he and his father have accumulated means they can buy good land and move their herd to it. Once the partnership is formed, Hanno said, he hopes to eventually buy his father out and own the farm himself.

Hanno's drive and optimism are key elements in a young farmer's master plan, said Conneman. "I have students in my farm management classes who will do anything to become farmers," he said. "They'll scrape and save as much as it takes to do it. And they usually make the best farmers. I like to read a passage from a Louis L'Amour book, Lonely on the Mount- ain, to my students: 'There's two kinds of people, those who wish and those who will. The wishers wish to be rich . . . They wish to own a farm or a fine house. The ones who will, they don't wish, they start out and do it. They become what they want to be or get what they want. They will it.'"

Bob Hanno, like some Louis L'Amour character, is willing to work to make his dreams come true. And in 1985, when stories of farm failures are more the rule than the exception, Hanno stands a chance to prove what education, and hard work can do for a farmer.

by Stephen Madden '86
There is no farm problem more frustrating to consider than the present market conditions that force huge grain surpluses on many agricultural export nations while thousands of people all over the world go to bed hungry every night.

Economic market conditions have made this dilemma especially applicable to grain farmers exporting from the United States. A combination of factors including decreasing price levels, increasing competition and an unfavorable exchange rate are making it almost impossible for the U.S. grain farmer near marginal profit production to stay afloat.

Over the last five years, the U.S. share of world wheat and coarse grain production has dropped from 25.5 percent to 23.4 percent. This may not seem like an earthshaking loss in market share, but it translates into significant cash revenue problems for farmers actively engaged in grain export trade.

Looking at the import behavior of traditional grain consumer nations, we see that more nations are moving towards a state of self-sufficiency. Since 1979, our total export trade of wheat and other coarse grains has decreased by 8.3 percent of market share. Countries in Western Europe, traditional buyers of U.S. grown grain, are now producing more grain, making them less dependent upon U.S. grain farmers. In fact, since 1975 Western Europe imports have declined from 25.7 percent of import market share to 7.3 percent, translating into a substantial loss for U.S. grain exporters. These nations are beginning to feed themselves.

Assessment of demand trends show that the Soviet Union will remain the single most important consumer of U.S. grain exports in the future. Soviet grain production levels are de-
PROBLEM

by J. Patrick Kennedy '86

clining and are expected to stay that way; even great investment in farm technology cannot overcome the poor soil and climate conditions that have made the Soviet Union so reliant upon grain imports in the past.

United States-Soviet relations have been tenuous at best over the past five years. It is of vital interest to U.S. grain exporters that U.S.-Soviet trade channels remain open in years to come.

Coupled with the problem of declining demand from traditional consumers is the increased competition for market share by other grain producing nations. Countries like Canada, Argentina and Australia, who have historically been fighting to reach self-sufficiency, are now producing grain for the export market at lower prices than our own. For example, in March 1985, U.S. hard red winter wheat sold at $144 a ton while Argentine wheat sold at $114 a ton. As a result, the Argentines secured a greater percentage of uncommitted sales.

At present, U.S. grain exporters have not been able to overcome these developing problems to a satisfactory degree. The result is that more and more of the grain being produced on fertile American farmlands is now sitting in grain silos waiting to be utilized. From 1975 to 1983 total U.S. grain surplus stock grew from 27 million metric tons to 136 mmt. Not only are these growing inventories expensive to store and maintain, they represent significant foregone revenue dollars to export grain farmers.

To combat this growing trend of grain overstock, U.S. farmers must develop production techniques that maximize output while stabilizing costs, and hence make U.S. export grain prices competitive with those of rival producers. However, in times of shrinking revenues and profits it becomes increasingly difficult to invest in the capital expenditures and research that are necessary to improve U.S. grain productivity and harvest efficiency.

Meanwhile, what is to be done with surplus grain while U.S. export farmers fight to regain their competitive edge in the export market?

In recent years the U.S. has stepped up the growth of “food aid” programs to needy countries, mostly through concessional sales at or below production cost. However, with the world hunger problem so widespread throughout northern Africa, why can’t an export nation with such a large glut in grain like the United States help more?

The answer lies in balancing farm revenues and costs against the price of government subsidation. In the 1970s, U.S. farmers were gaining a larger grain market share and greater profits because the American dollar was weak abroad. Foreigners could acquire large amounts of U.S. goods at comparatively cheap prices. Now that the U.S. dollar has strengthened in value, foreign purchasers are inclined to buy grain from other export suppliers, our competitors, who can give them more for their money.

U.S. grain farmers relying on export revenues are seeing their product demand dwindle while they are pressured to keep up with the technological advances of competing nations. They need cash revenue from somewhere, and certainly they will not get it by giving away their crop.

A large percentage of present revenue for most U.S. farmers is going to pay back loans administered to farms in the late 1970s and early 1980s. A tremendous concern in the farming industry is meeting these loan payments. Farm bankruptcies doubled from 1983 to 1984, mainly because it became more and more difficult for farmers to meet their cash interest payments on outstanding loans.

Therefore, government attention has had to shift away from external problems to internal farming problems as we risk losing even more farms. In the past, government subsidation has focused on re-financing farm loans and paying farmers to leave some of their fields unplanted.

Until the market conditions become more favorable to U.S. grain export farmers, government subsidation will play a large role in keeping many farms from going under. Amassing grain surpluses constitute a moral and economic dilemma until the time when U.S. farmers regain their dominant position in the grain market economy.
What would you call a market where goods that have not been produced yet are bought and sold by people who do not actually own them? Impossible? Prof. Dana Goodrich MS, '56, PhD, '58, Department of Agricultural Economics, teaches students about this market, called the Commodities Future Exchange, in his Introduction to Marketing course.

Goodrich requires that students in his marketing class participate in a simulated futures market. Goodrich gives each student a hypothetical account of $20,000 with which to trade in corn, wheat, soybean, cattle, pork belly and frozen orange juice futures. Students watch the price fluctuations of the real market and make their predictions. Goodrich said he includes the futures game in his class because the futures market is a very important marketing institution.

Trading in futures of any commodity is unique. Real-world speculators are not required to trade by first buying and then selling commodity futures. Rather, participants in the futures market speculate on whether prices will go up or down and can enter transactions by either buying or selling quantities of future commodities.

For instance, if traders speculate that the price of corn will go down in the future, they will sell specified quantities of it at the present price and buy those quantities back later at the lower price. The speculators would make a profit and no actual corn would have changed hands.

However, if those same speculators had been wrong and the price of corn had gone up, instead of down in the future, they would have incurred a loss.

Confused? According to Goodrich, so are a lot of his students—at first. "The hardest concept for the students to accept is that it is possible to sell something before you have it. As soon as they are able to overcome their intuitive sense, they do fine," he said. Kelly Smith '88 said, "I think the game is, by far, the most difficult thing to understand in the course but the rest of the course helped with the futures game."

To trade in the simulated futures market, students mark on special cards how much and which commodity they want to trade and whether they want to buy or sell. Students drop the cards in a box in Goodrich’s office. Then Goodrich’s staff daily records and compiles all transactions.

Students may consult the Wall Street Journal and the Journal of Commerce for daily listings of market activity of the various commodities, and the Commodity Chart Service for weekly charts of commodity activity. There is also an electronic teletype, set up in Goodrich’s office, which continuously gives reports from the Commodity News Service.

Lori Zucchino grad '86, teaching assistant for the course, said she thinks the futures game helps the students to better understand the futures market. "Rather than being in a lecture where they’re just listening, the students are actually buying and selling in the futures market," she said. "This is the only such exercise that I am aware of in this university, where students participate in a process where prices are changing minute by minute," Goodrich said. Scott Pesner '87, said, "I thought the futures game was the best part of class. Even though I lost a lot of money, it was fun."

The futures game, part of the course for several decades, has undergone changes. "Computerizing the whole process was the most significant change during the past 10 to 12 years," Goodrich said. Prior to computerization, compiling and recording students’ transactions was all done by hand. "There were no weekly updates and students were literally flying blind," he said. Now, students receive a weekly statement reporting on the status of their transactions. Professor Goodrich said the process is so realistic now that the only component the students lack is the service of a legitimate stock broker.

One of the highlights of the course is an awards presentation at the end of the semester. Goodrich awards students for various outstanding accomplishments in the futures game. "Those accomplishments are both positive and negative. But we seldom have trouble with students feeling they’ve been abused," he said. These awards can range from live piglets for the student who made the most money on porkbelly futures to artificial cow manure for the student who lost the most money on cattle futures.

Most students seem to enjoy the futures aspect of the course. "I think the game added to the students’ enthusiasm for the course," Zucchino said. Goodrich said the students recognize the process as a "super-current" learning tool. "If something big happened in the market, it was reflected in the futures market," Smith said. Most students in the course were not familiar with the futures exchange and were surprised at its importance in the marketing process.
Go ahead, fill the gas tank of your luxurious new Cadillac. Better yet, be sure to dump your ashtray filled with cigarette butts out the car window. Go on, walk into your house to find you forgot to turn off the kitchen light when you left the house three hours earlier. Every minute of every day these incidents occur; people are constantly mistreating the environment. Most of the time people are aware of their abuses, but then why do they occur? What affects the way people treat their environment?

Professor Richard A. Baer Jr. teaches a course entitled Religion, Ethics, and the Environment, where these questions are examined. This course explores Western religion, philosophy and ethics, and the way these have affected our comprehension and treatment of the environment. This course is offered in the Department of Natural Resources as part of a Program in Agricultural and Environmental Ethics.

Baer received his PhD in the history and philosophy of religion at Harvard. He taught for twelve years at Earlham College in Richmond, Indiana. In the early 60s he became interested in the whole question of environmental ethics and how human beings relate to the natural environment. He came to Cornell in 1974 to start a Program in Agricultural and Environmental Ethics. He taught “Religion, Ethics, and the Environment” for the first time in the spring semester of 1975. He has taught the course ten times since then.

Baer describes that in the course he examines various insights from the humanities, religion, history and philosophy, and how they help us better understand ourselves in relation to our environment. He explains, “The way we think and feel about the environment is closely related to the way we think and feel about ourselves.” More particularly, he examines such themes as work and play, law and grace, objectivity and subjectivity, human finitude and death and the nature of knowledge. He looks at the ethical dimensions of current environmental problems, concentrating heavily on land use, energy and the relationship between agriculture and culture. He also discusses our responsibilities to future generations.

Religion is an important aspect of the course. Baer explains that religion is where most Americans ground their ethical views. He said people that are high consumers of the environment are often not at peace with themselves. They use the environment as a way of making themselves feel important and secure.

An example Baer uses is the difference between a Cadillac and a Volkswagen Bug. Both cars serve the same purpose of providing transportation, yet more environmental materials and energy are needed to produce and operate the Cadillac. People are aware of this and still purchase Cadillacs because of the “influential” status the car carries in the modern western world.

As mentioned earlier, Baer’s course explores the question of what responsibility we have to future generations to preserve the environment. Baer informs his classes that it is our responsibility to see that future generations have access to vital resources. “We should not leave debris or anything around which will make the quality of their life suffer,” said Baer.

Why teach a course in environmental ethics? People are more aware today than ever before of ecology and the environment, yet at the same time they are putting the greatest strain ever on the biosphere. This raises the question, can environmental ethics be taught? Professor Baer thinks that it can. He explains, “We can learn things about ethics and situations that will help us to act more justly.”

Baer thinks a problem at Cornell, as well as at other universities, is that there are not enough courses offered in applied ethics. He thinks Cornell does not do enough in the teaching of values. He sees Cornell as technically proficient but as not adept in the business of making better men and women in broad human terms. He points out that up until about a year and a half ago there were no humanities courses required in the College of Agriculture and Life Sciences to graduate. He thinks colleges like the ag college should require more courses in humanities.

“Religion, Ethics, and the Environment” is a humanities course. Why is it offered in the Department of Natural Resources? Professor Baer answers this question best in his article “Our Need to Control: Implications for Environmental Education.” He said, “Humanities have something even more important to contribute to the environmental issue in shedding light on how humanity understands itself and how this self-understanding in turn affects our treatment of the environment!”
The Effects of

The dairy herd, mainstay of most New York state farmers, does not provide meat and milk without its share of difficulties. Though diseases such as tuberculosis and brucellosis may be transmitted to people, they are well controlled. Charles Guard DVM, PhD '80 of the Cornell College of Veterinary Medicine's Ambulatory Clinic said he has yet to see either. There are numerous other diseases of significant economic impact, though.

Mastitis, a catch-all term for an infection that may range from subclinical to severe, is the most costly to dairymen. According to Guard, "We are slowly succeeding in controlling contagious types of mastitis, and starting to tackle the environmentally acquired infections. These do not respond to the control measures that have been successful for contagious mastitis."

The economics of having even one infected animal in a herd can be financially damaging to a dairy farmer. Without considering treatment expenses and possible breeding value, milk production is at a severe loss.

During calving, many diseases affect a cow shortly after giving birth, resulting in loss of milk, and possibly death. Pneumonia, too, is always a lingering problem which can be severe. It is sporadic, but contagious and smolders in calves. Eventually the whole herd may become susceptible to the virulent bacteria.

Guard said there are three diseases which the state has instituted a disease control program to eliminate. Two are viruses, bovine leukemia and blue tongue. The latter is carried by cattle and also infects sheep. Little is known about these or the third, Johnne's disease, a bacterial infection which causes a loss in milk production.

Though they are not new diseases, these are ones that have been brought to attention, in large part due to a growing export industry of cattle, semen and embryos. Guard said the United States has the best genetic pool of Holsteins in the world, but many European countries have strict import laws to prevent an influx of diseases like those now under research. At Cornell, work is being done to determine if these diseases are transmitted through genetic material. If they aren't, then the U.S. would be free to export. The mechanics of the diseases are therefore as important as the cure; if there were no infection of genetic material, it would boost export quantities and profits.

Francis M. Fox DVM '45 recalls some of the diseases he has seen come and go, and return, in his forty years at Cornell.

In March, 1946, a new disease, bovine virus diarrhea (BVD), struck five herds in five days within the area served by the Ambulatory Clinic at Cornell. In each case a high percentage of the herd was affected, with as much as 20 percent dying. The disease struck cattle of all ages, was refractory to treatment, and caused a vicious diarrhea. Though impossible to identify the cause for some time, Drs. Peter Olafson '26 Alexander D. MacCallum '45 and Fox, all of Cornell, were the first to identify the viral agent. Six months later they isolated the virus which caused it.

Five years later random blood samples revealed that 90 percent of the
Dairy Diseases

by Henry Kipp '87

cattle in the northern U.S. had been exposed to BVD, and had developed antibodies against the disease. Until 1980 incidents of the disease were infrequent, but now it is once again becoming troublesome. Fortunately, proper vaccination will prevent its spread, if used in time.

"In 1949 another new and unrecognizable disease was diagnosed."
Leptospirosis also infected all ages of cattle. It was isolated by Drs. James A. Baker '39 and Charles Y. York PhD '51 at the Cornell Veterinary Research Center. "High fevers, beet-colored urine, cessation of milk production, and frequent deaths were sure signs," said Fox.

"Subsequently, a similar condition was diagnosed in horses, dogs, swine, and in man."
There are now five different serotypes recognized, each species specific, and none of them are potentially lethal. A vaccine effective against all strains has been developed, but the disease will continue to plague us because of infected wildlife.

Another disease that continues to be problematic today is infectious bovine rhinotracheitis (IBR), which was discovered 20 years ago. The virus, which affected different parts of the country in an unexpected pattern, can cause either single or multiple combination diseases in the respiratory and reproductive systems, and eye and brain damage. Like mastitis and pneumonia, "respiratory infections will rarely cause death, but they can be a stress factor predisposing to a secondary bacterial pneumonia which may cause death."
Vaccinations have been developed to protect an entire herd.

One of the oldest diseases reported in medical and veterinary journals is rabies, and it keeps cropping up again, Fox said. During 1948-1953 an epidemic spread northward from Pennsylvania, all the way to Ontario. Fox diagnosed the first case in the Ithaca area. Most frequently only one or two animals in a herd are infected, "But the startling thing about the disease is that once diagnosed, death is imminent. And rabies can affect any warm blooded animal, including man."

After it was determined that the wild fox population was the carrier of rabies, the state hired Native American trappers who were successful in eliminating the wild fox population, after other methods had failed. Today there is once again chance of an epidemic, as reports of rabies have been filtering up from Virginia to Maryland and as close as Pennsylvania.

There is a hotspot of the disease in St. Lawrence County, N.Y. and it is known that the overabundant raccoon population is principally responsible for the latest outbreak.

So, like unpaid bills, diseases may never go away, and they may collect interest. New management techniques for dairy herds may solve the rapid spread of some diseases, but may just as well worsen others. Disease often lies dormant in the manure allowed to compost over the winter and spread in the spring. Herds are getting larger and more tightly spaced, encouraging the spread of infectious diseases. Economics are always getting tighter, and forcing new measures. Without proper care, the profits from a prize bull may be lost in treating it, and all the new milk treatments will not yield more profit if there is no milk.

New-born calves are particularly susceptible to dangerous infections.
"The farm problem in the United States today is the worst it has been since the 1930s," said Prof. John Brake, of the College of Agriculture and Life Sciences. Although the situation is bad all across the nation, the New York dairy farmers are not finding as much financial difficulty as the midwest cash grain farmers. But our farmers are still sinking and things may be getting worse before they get better.

Many farmers are depending on a new farm bill to help them out of their financial crisis, which is caused, in part, by a surplus. "A large amount of crops depresses prices and we have had record crops this season," explained Professor Kenneth Robinson MS '47, who teaches Farm and Food Policy at Cornell University's College of Agriculture and Life Sciences.

In New York state where dairy farming is prevalent, the situation is not as grave because the price of milk is set by the government; there is a guaranteed price for the farmers. This makes their income much more steady than the midwest cash grain farmers. "Even though the NYS farmers of which 60-70 percent are dairy, are better off, milk prices are expected to drop further, because under the present support program, dairy farmers are producing more than we are consuming," explained Brake.

"So far, there's no new farm bill. The House of Representatives passed their version of a farm bill, in the beginning of October 1985, but the Senate has not yet agreed on one," said Professor Eddy LaDue BS '64, M.S. '69 of CALS. The House's farm bill consists of a "buyout plan" and a "diversion plan," both of which are optional. The buyout plan enables the government to buy the rights from the farmers to produce all the milk for the next X number of years. "The farmers are expected to sell their cows at beef prices and they can either sell or keep their machinery. Instead of dairy farming they are encouraged, implicitly, to seek non-farm employment. Since many farmers may not be making much money anyway, the buyout plan, although a temporary solution in design, may contribute to a long run solution because some farmers may not return to farming. They may find success elsewhere," explained LaDue.

The "diversion plan" is not as radical, or as "all-or-nothing" as the buyout. "There would be a reduction on individual farms, that choose to participate, that would resemble the 5-30 percent plan used in the recent diversion plan," according to LaDue. The current administration does not support the diversion plan because it would cost too much money.

The House farm bill could put the dairy and cash grain farmers in direct conflict. The dairy farmers need feed for their cattle and obviously prefer low prices for the feed. If, however, the farm bill has a high support price for grain then the midwest farmers will benefit and the NYS dairy farmers will pay higher prices for feed. Depending on the terms of the farm bill, the two farmers could be put in direct conflict.

Why hasn't the Senate passed a bill? Don't members of the Senate realize the gravity of the problem? This problem is somewhat political in nature. LaDue explained, "People in the Senate realize that something must be done, but because of the huge deficit they do not want to spend the large amount of government money that many suggested programs would require." This is the administration's line of thought. The Reagan administration realizes that it will be tough for farmers, but believes there will eventually have to be "a shift over to a market-oriented price strategy that can compete in the world market," said LaDue.

If a farm bill reaches the Conference Committee and beyond, after passing both the House and the Senate, there will be some relief to our farmers. However, Old MacDonald will have to wait and see what lies ahead.

by Leora Brayer '86
Of the approximate 150 apple processing plants in New York, 87% produce apple juice. We all know how clear, pure, and refreshing a glass of apple juice can be, but what happens to the rest of the apple when the juice is extracted?

What is left is the crushed apple pulp, or pomace. This by-product of juice production contains a large amount of water, sugar, and protein and has a very low pH, or high acid level. It has caused considerable disposal problems for apple producers in past years. The United States produces about 1.4 million metric tons of pomace per year, boosting disposal fees to about $10 million per year.

In the past, juice producers have disposed of the waste in public landfills, but environmental officials in some communities have banned this practice. Some farmers store the pomace somewhere on their own farm, but this is not considered a good practice. According to Stephen Etheridge, a research associate in the CALS Department of Agricultural Engineering, "The pH of the pomace drops rapidly, and the acidity causes a temporary nutrient imbalance in the soil."

Professor William Jewell of the agricultural engineering department has done extensive work with waste management, especially the anaerobic digestion by bacteria of animal wastes to produce methane, or natural gas. With funding from the Western New York Apple Research Foundation and the New York State Department of Agriculture and Markets, he and colleagues from his department began studies using this process on pomace in 1981.

They found that they can extract methane from the pomace, creating a material that can be used as a fertilizer as well as provide the farmer with an energy source. Etheridge, who collaborated on the project with Jewell, said what was left of the waste after methane production was "more stable and easier to handle."

Work involving anaerobic digestion of waste material is not new. Jewell has been experimenting with this concept for years. "The experiment is novel in the application to this particular waste," Etheridge said.

Jewell agreed, "This is not just another waste treatment process," he said. "The farmer receives a revenue from fuel, so this system, in actuality, has the potential to pay for itself."

Not only does the farmer save on the disposal costs of the pomace, he can replace his existing fuel with the natural gas by-product he extracts. The methane can be applied to the same uses as natural gas, such as space heating, cooking, water heating, and to drive engines.

It is estimated that one ton of wet pomace contains an energy value of $10 to $30 when processed by the system. With over a million tons of pomace produced annually in the country, the total dollar amount of energy created, if all the material is processed, would be quite significant.

The system pioneered at Cornell is simple in design, efficient, and reliable, and would bring a return on investment within the first few years. The feasibility of this technology has been established and it will now take a leading innovator to implement this system of anaerobic digestion of apple pomace for regular use on the farm. Etheridge explained that many farmers are hesitant about investing in and using new technology. But, as progress has dictated, someone has to take the plunge first.
Part of the gently rolling hills of southern New York state, the Arnot Teaching and Research Forest is a place where Cornell University students can “mist-net” birds, trap live animals, tap syrup from maple trees and enjoy a picnic. The Department of Natural Resources administers this field station, located 20 miles southwest of Ithaca, near the small town of Van Etten.

The forest of beech, sugar maple and hemlock trees provide shelter for white-tailed deer, raccoons, foxes and other small animals. A relatively unknown part of Cornell, the Arnot Forest provides the University with a wealth of resources.

The 4,025 acre forest functions as a place for students in areas such as forest ecology and ornithology to obtain valuable field experience in their courses. In addition, it is a center for graduate and professional research on topics such as forest management and population control. The forest also provides the resources for the commercial production of timber and maple syrup. Extension services for the public, such as special courses in maple syrup production, also bring revenue into the forest.

The University uses the forest primarily for teaching purposes and students benefit greatly from the practical experience they get at Arnot. Entomology, ornithology, agricultural engineering and natural resources are only some of the areas of the University which use the forest for research and field work. How did Cornell acquire such a gold mine?

We can trace the history of Arnot Forest as far back as the 1700s. The forest and the encompassing land was first part of the Six Nations of the Iroquois Confederacy in the early 18th century. When New York state acquired the forest after the American Revolution, it was soon passed on to a series of private owners. A lumberman named Joseph Rodbourn established a logging facility in the forest after the Civil War and felled many of the white pine and hemlock trees.
His mill suffered during a recession in the early 19th century and in 1914, the land was sold to the Arnot family who continued to log the area.

In 1926, the Arnot estate donated the forest to the Department of Forestry at Cornell. The University acquired additional land through various purchases and by 1956, the forest had reached its present size of 4,025 acres — more than double the original size.

Cornell first used the land strictly to teach commercial forestry practices. However, New York state decided that Cornell’s forestry program was a duplication of that being offered at the State College of Forestry at Syracuse and instruction in professional forestry was discontinued. Emphasis was then changed to research on the variety of uses of forests and conservation education. Today, the forest is thought of as a teaching and research center, with commercial production of timber and maple syrup providing additional income.

Associate Professor of Natural Resources, John W. Kelley, PhD ’68, is director of Arnot Teaching and Research Forest and teaches a maple syrup production course which uses the Arnot facilities extensively. During field trips, students actually tap the trees, learn the maintenance of the tubing, gather and boil sap, and process the syrup. “Students participate in each phase of operation,” Kelley said.

Kelley claimed that in the past, much of the forest has not been used to its fullest potential. Most of the trees have been allowed to grow without the benefit of forest management. “This is not the best stewardship of a renewable natural resource,” Kelley said. He added that the forest could accommodate a number of different research, educational, aesthetic and commercial uses within the framework of a sound management plan.

Students in the natural resources department are exposed to Arnot Forest at an early date. During orientation week, they attend a picnic at the forest and meet with their advisors. “It’s nice to see that the department has more than Fernow Hall,” said Amy Rugar ’87, a student in the department.

Rugar also lauds the use of Arnot in some of her natural resources laboratories. For her Introductory Field Biology course, she live-trapped animals for population studies and “mist-netted” birds to determine their species and sex. A “mist-net” is a bird trapping mechanism which looks like a volleyball net. Birds become entangled in the net but can be easily removed without injury. “It was definitely a great experience,” she said. “We learned the practice and the theory behind it,” she added.

Arnot Forest also functions as a place to get to know professors and fellow students. Rugar said “At an overnight field trip to the forest, I really got to know my classmates. It was like a big campout.”

The Camp Arnot section of the forest has a main lodge, a library, the maple sugar house and sawmill, several cabins and a maintenance building. Students stay in the cabins when they are on field trips and the forest administration rents the facility to groups when it is not being used by the University.

Arnot Forest is open to the public, who may use it to picnic, hike and ski in specified areas. Arnot administrators also encourage hunting in the forest. Hunters must obtain a special permit and are required to fill out a hunting diary of their hunting activities if they wish to renew their permit the following year.

Arnot Teaching and Research Forest is a valuable asset to almost everyone. The public may enjoy its beauty. The faculty and graduate students will provide insightful research on forest and conservation management. And the undergraduates who need an area where they can practice their field study techniques and theories will benefit greatly from Arnot Forest. Students agree that being out in the forest is beneficial to their education. As Rugar stated, “It’s better than spending your afternoon in a chemistry lab.”
Attention! An unidentified leafy vegetable has been spotted in supermarkets, restaurants and in salad plates on dinner tables throughout New York state...

In earlier days mothers had to threaten their kids to eat their vegetables. Now vegetables have become more than just a necessary, healthy food but desirable, sought out fare. The standard vegetables have been expanded upon by the new cultured tastes of the experimental eaters, who are seeking more exciting and decorative salads and veggies.

"Accordingly, the produce market is getting more savvy as to what unusual vegetables will sell," said Roger Kline, Cornell Cooperative Extension Associate. Kline's specialty crops are grown in experimental trial gardens to test whether interesting lettuce, chicory and oriental vegetable varieties can be grown right here in New York state, rather than being shipped from Europe, California or Chinatown.

The oriental vegetables are grown at Cornell. The lettuce crops are located eight miles from Cornell at the Vegetable Crops Department farm in Freeville, where 90 different varieties of lettuce and 30 chicories are grown. Since many of the chicory seeds are originally from Italy, the crops have names like Verona, Treviso and Castelfranco—which are Italian towns.

Kline jokes that one needs to have a background in languages to pronounce and understand the names of his crops.

Getting familiar with these unusual crops, however, would certainly be worthwhile to farmers and gardeners said Kline. The salad greens such as fancy lettuces, radicchio, endive, escarole and arugula add both flavor and color to salads and are being used more frequently in restaurants and household kitchens. They should be tried on a small scale, but consumers and restauranteurs will pay extraordinarily high prices for even the smallest amount of the unusual produce. Presently the lettuces and radicchios are flown in from Europe or California.

Importing adds to the cost and a small head of radicchio often sells for $1 or $2. The long import distance means that it will either be refrigerated and air-freighted to eastern markets at great expense, or it will arrive to local markets already perished.

By growing these vegetables locally, farmers can produce them more cheaply and offer them fresh to different markets eager to purchase them here. The purchaser would save on import costs and receive fresher, higher quality produce, while the farmer could still make a great profit from the markets' high demand.

Turning Over New Leaves

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them. Kline says that many growers simply do not want to take a chance on these little-known specialty crops.

"The specialty crop growers are taking the same gamble as the restaurateurs who are serving the vegetables to the customers," says Abby Nash, owner of Abby’s Restaurant in Ithaca. "The important thing is to educate people; to be patient and not expect everyone to open their arms to you."

However, some people have simply not been given the opportunity to try the new types. "The French

by Donna S. Mandell ’86

and Italian idea of salads is very different from the American version," Nash explains. "For them, iceberg lettuce doesn't even exist. Here in America, we take tasteless, monotonous leaves and drown them in thick, gooey, cheesy dressings. There, they need only a light vinaigrette to complement the unique leaf flavors." Nash uses radicchio, mache, endive and arugula leaves in his salads and is already using local people to provide him with the lettuces.

Hsi Wang, the owner of the Golden Dragon restaurant, by Pyramid Mall, said he imports snowpeas, Chinese cabbage and broccoli and winter melon, just like the ones being experimentally grown in Kline’s oriental vegetable trial plots. Wang says he buys 100 pounds of snow peas per week, sometimes paying as much as $4 per pound for them. The peas are flown from South America to Chinatown and are then shipped to Ithaca.

The process can take up to two weeks! Wang says he would be happy to buy the vegetables in season from a local grower, but they are not producing them constantly. "They need more experience and training in growing them," Wang adds.

The grower of specialty crops must be courageous enough to take the initiative to knock on doors and seek purchasers, whether in farmer’s markets, supermarkets or restaurants. Some especially inventive growers have found that by complementing their specialty crops, with herb or flower sales, they can create an appealing package deal for restaurants.

Kline emphasizes that whereas with standard vegetables, there are plenty of growers but not enough markets, with the specialty crops it is just the other way around. "Not enough people realize that in upstate New York alone, there is a huge market in the Syracuse, Utica, Ithaca, Rochester and Buffalo areas. Additionally, trucks come up from New York with produce for Ithaca every day," Kline said they make their return trip empty, when Ithaca specialty crop growers could be sending down their specialty produce, having it arrive in New York within 12 hours of picking it.

In September 1985, in response to the hundreds of letters he had received all year, Kline had a Specialty Crops Field Day. Over 100 people, mostly growers, showed up to hear 15-20 designated growers speak about almost 30 crops. Participants visited the fields where Kline tests all varieties of vegetables. They heard what the growers and buyers had to say and they even got to taste the vegetables! Kline said that he imagined "flying a plane in to sprinkle vinaigrette on the entire field of salad greens."

To heighten awareness of the new vegetables, Kline suggests appealing to younger growers, who might be interested in trying something new. As a vegetable crops extension specialist, Kline travels throughout the state talking to extension audiences, public school students, garden clubs and local groups. For some crops, Kline distributes the seeds for home garden variety evaluations.

"These vegetables have often been thought of as gourmet food and ‘yuppy’ fare because they were first seen in expensive restaurants, but their appeal has spread to many other people who simply enjoy the rich and unusual tastes that come from this expanded, fascinating array of vegetables," Kline says. Abby Nash adds, "These vegetables are no longer solely for rich, well-heeled folk."

By increasing the awareness that these crops are both very producable locally, as well as in demand, Kline’s vegetables could very quickly gain popularity and their own niche in the vegetable market. Likewise, they may gain a place on your own dinner table. For these reasons those unidentified leafy vegetables must surely take on new meaning.
Thomas Martin's recent experience establishing a thoroughbred breeding farm in Columbia County, New York presents a welcome relief from the oft-heard tale of the failing independent farmer. Martin's story is all the more noteworthy in that he recently purchased some land from just such a farmer, Karl Schulerud, who found that his family farm could not be operated profitably in today's inflationary economy.

Schulerud, who owned and operated a dairy farm in Columbia County, found himself in debt. With increasing yearly losses, Schulerud realized he would never be able to repay the debt with the returns of the farm. He decided to give up dairy farming and sell off both the herd and a major portion of the land. It was a tough decision for someone who had been farming all his life, but he felt it was the only logical solution. Schulerud said he feels fortunate, though, that he was able to get out of farming before it was too late. He said, "Many farmers get so deep in debt that to sell their farms would leave them with less than nothing. You're stuck between a rock and a hard place."

Thomas Martin, owner of Kinderhill Farm, a thoroughbred breeding farm, was looking to buy land at the time Schulerud needed an exit. Martin purchased 165 acres from Schulerud, increasing the size of Kinderhill to 1,100 acres.

Martin, a 1952 graduate of the School of Hotel Administration at Cornell, was a certified public account working on Wall Street. Although he liked the fast-paced city, Martin had always planned to get into farming and he chose horse farming specifically later on.

Valued at $78 million, Martin's horses are the central asset of a highly successful operation. These horses are all owned in partnership. Martin figures that somewhere between five and ten percent of the $78 million belongs to him. Kinderhill employs 72 people, 40 of whom work directly with the animals.

Not all horse breeding farms are as successful as Kinderhill, however. Martin said, "The key factor to the success of such an operation is the initial investment."

There are two different markets for thoroughbreds. In one, the horses are valued somewhere between $5-10,000. In the other, the market demands a price of $500,000 and up. Regardless of the value of the horses being bred, the operating costs of both farms are essentially the same. In addition, there is a greater demand for horses in the higher value range. As a result, the breeder whose initial investment in a brood mare is $500,000 or more will not only recover his investment more readily, but he will also experience greater returns on each horse sold. The profitability is directly related to the amount of investment made in the brood mare.

New York state agriculture often poses a pessimistic picture for future conditions. The small family farm is having a difficult time surviving and could possibly disappear altogether. However, the example Thomas Martin offers is a positive one. Although the direction of New York state agriculture may be changing dramatically, it is not an entirely doomed industry.

To enter today's farm sector, a great deal of capital is required. In terms of Thomas Martin's example, the larger the investment, the more profitable the returns. Martin was willing and able to make the necessary investment, and his profits have largely exceeded his initial investment. Granted there will be a decline in the number of small family farms, but the money is going to remain in the industry, as large entrance fees draw the needed flow of financial investment into New York state agriculture.
Saturday mornings are a unique time in Ithaca. As students, so apparent at other times of day, recover from weekend drunkenness, early risers enjoy a novel bi-weekly event—The Ithaca Farmers’ Market.

Located on Inlet Island, a strip of land between the Flood Control Channel and the Inlet, the market is open from 9:00 a.m. to 1:00 p.m. each Saturday and Wednesday morning. Established 13 years ago, the Market remains open from May through November every year.

Each week Ithaca area residents gather downtown to sell their wares. All vendors are members of the Ithaca Farmers’ Market, contributing $15 a year as a membership fee. George Sheldon, member of the Board of Directors for the Farmers’ Market, as well as a vendor, describes the organization’s structure. “There are 140 members of the market and approximately 75 to 80 of them sell their goods each week.” In addition to the $15 membership fee, Sheldon adds, vendors pay $5 each week for a stand at the market site.

Anyone may become a member of the Ithaca market, provided they meet two requirements. “All vendors must reside within 30 miles of Ithaca and they must make or grow their own goods,” states Sheldon. “These stipulations keep the market on a local scale and eliminate the need for middlemen.”

Ithaca’s market is more than just a “farmer’s market”. The goods sold are varied and useful. Fresh vegetables, herbs and fruits are available in abundance. Other than produce, there are numerous stalls vending flowers and potted plants, as well as home-baked goods, wines and cider. Craftwork is also exhibited at the market and beautiful sweaters or home decorations may be purchased at reasonable prices.

Lately, there has been some controversy surrounding the future of the Farmer’s Market. Development plans for re-routing Route 96 have caused some uncertainty about the location of the market in the years to come. Any project concerning the development of a new bridge over the Flood Control Channel would affect redevelopment of Inlet Island.

Members of the Farmer’s Market have been discussing construction ideas with the Ithaca City Planning Department. Most are in favor of erecting a permanent building to house the Market. “An ample, architecturally striking building would be an economic asset to the West End and the city as a whole,” writes George Sheldon in an article appearing in the local newspaper the Grapevine, in late September. “It would serve as a distinctive ‘city gate’ for traffic to and from Ithaca.”

In its present state, the Market is a collection of wooden booths covered by plastic tarps and cloth. Vendors bring their goods to the site each week by truck and spread their wares before them. The scene is lively and colorful and the aroma of home-baked goods wafts through the air. Families and couples mill about, stooping at booths to purchase items or say hello to neighbors and friends.

**A SUPER Market**

by Ruth Citrin ‘87

For those early-risers, a stroll through the Farmers’ Market is an entertaining way to spend a leisurely Saturday morning. Not only can fine food aficionados purchase a week’s supply of fresh vegetables, herbs and breads, but visitors can relish in the exhilarating atmosphere of Ithaca’s Farmers Market—a welcome change from local supermarkets and malls.

*The Farmer’s Market is an excellent place to buy fresh fruit and produce.*

*Ithacans buy fresh apples at the Saturday market.*

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Apples are big business throughout New York state, but if the Environmental Protection Agency has its way, the state’s apple industry could stand to lose nearly $15 million in annual revenues. Industry officials say this would be just the beginning of expected reductions in the value of New York’s apple crop.

The EPA is expected to make a decision this fall on the use of the growth regulator daminozide (trade name Alar), which the Agency has said causes carcinogenic effects in mice and rats. Farmers, who have been using daminozide legally for more than 22 years with no known ill effects, are told in late August 1986 that they may no longer have access to the chemical. (The EPA issued a notice of intent to cancel the use of daminozide and is reviewing the chemical’s potential effects.) The regulator is commonly used on apples and other fruits and vegetables. It is believed to be crucial in effectively maintaining optimum color, taste, firmness and overall growing conditions for apples.

Of the more than eight billion pounds of apples produced nationwide each year, New York growers supply more than 1 billion pounds—making it the second largest apple-producing state in the country. (Washington state leads the nation in apple production with approximately 2.6 billion pounds annually.) Although many of New York’s apples have traditionally gone toward processing for juice and canning purposes, recent trends indicate that more apples are being sold on the fresh market.

The controversy over Alar’s proposed cancellation is not expected to impact New York state apple growers to the extent that it will other U.S. growers because a large portion of the state's crop is used for processing purposes, according to Kenneth Pollard, executive vice president of the Western New York Apple growers Association. (The association represents about 750-800 apple growers.) "The benefits of using Alar for processing apples are not as great as they are for fresh apples," he explained, and the expense of using Alar is too great for most growers to justify using on apples which go toward processing. The Central New York apple crop is annually valued at more than $100 million and more than half of the apples harvested in the state are currently used for processing.

But, Cornell research scientists and industry officials remain concerned about the financial impact the cancellation might have.

According to estimates drafted by Professor Warren C. Stiles of the College of Agriculture’s Department of Pomology, if the state’s growers could not use Alar, immediate annual losses of income could top $14.83 million. (The EPA has anticipated immediate economic impacts of cancelling daminozide to be approximately $31 million for the apple industry. The supply of fresh apples is expected to drop by 4 to 7 percent, with consumer costs increasing by as much as $1.00 to $1.90 per bushel.)

The McIntosh variety, which com-

by David Marguleas '86
would receive lower value for their product, Stiles warned. There would be related problems as well. "If we had to harvest Mcintosh apples without the use of Alar, we would have to find twice as many pickers for that short period of time because the fruit would ripen too fast on the tree," he noted.

Alar was developed in the early 1960s. Professor Emeritus Louis J. Edgerton of the College of Agriculture's Department of Pomology was responsible for setting the guidelines for Alar's use. In 1963, the EPA approved use of the chemical on approximately 12 crops, ranging from apples, peaches, pears and nectarines to peanuts, tomatoes, brussels sprouts and ornamental shrubs.

The recent EPA announcement was based upon a test conducted in 1977 which allegedly caused cancer in rats that were fed large quantities of daminozide, Pollard explained. An advisory panel appointed by the EPA has recommended further testing before a decision to recall it is made. Uniroyal, Inc., which manufactures the product, has stated, "It is important to note that Uniroyal does not believe Alar poses any significant health hazard to humans or the environment."

Based on the data used by the EPA, a human would have to consume approximately 50,000 pounds of apples per day to have the same level of daminozide intake as the rats that were fed in the 1977 study, Pollard noted.

"All residues taken from apples and from apple products have been less than five parts per million and the EPA-approved tolerance level is 30 parts per million . . . so I think the apple industry has proven that they have used the product correctly and judiciously," the association official said.

According to Pollard, Alar provides nine specific benefits to apple growers. The chemical enhances color among red varieties; improves firmness giving the fruit longer storage and shelf-life and thereby reducing bruising; brings trees to bearing earlier in the season; controls vegetative growth; enables the use of low-ethylene (Controlled Atmosphere) storage; delays waxiness and oiliness in some varieties; prevents pre-harvest dropping which increases yields and helps to eliminate expensive "spot-picking"; enhances return bloom which produces more even and uniform annual yields; and effectively delays apple maturity.

While the verdict is still out on the potential effects of Alar, industry officials and growers are understandably frustrated by the unfortunate timing of the EPA's statement and by the Agency's seeming overzealousness. As stated by John A. Moore, the EPA's Assistant Administrator for Pesticides and Toxic Substances, "The risks associated with daminozide are related to long-term exposure. The risk to public health during the time necessary to cancel uses of this product will be minimal. I do not have any immediate concern about existing food products that may contain daminozide residues."

Although the EPA professes to having no immediate concerns, the state's apple growers are playing the situation by ear, busily harvesting this year's crop. Pollard acknowledged that certainly the apple industry has a responsibility to provide healthful fruit, "... but the apple industry has proven by example that it has used the product correctly. This is not an illegal product; it's been approved by the federal government," he added.

If Alar is proven by accurate and legitimate scientific means to be at all questionable, Pollard said he believes the apple industry would be quick to refrain from using the chemical. "The confidence that the American consumer and the world consumer has in the apples and in the apple products that they're offered in the marketplace is far more important than any chemical," he said.
On Sunday, September 22, 1985, before a crowd of almost 64,000, singer Willie Nelson and a number of other stars joined together to aid the struggling farmers of America. "Farm Aid," as the benefit concert was called, took place in pouring rain at the University of Illinois' Memorial Stadium.

The rain did not dampen the spirits of the fans who attended, or those of the performers, who hoped to raise $50 million for their cause. Willie Nelson, the spokesman for the concert, said that the purpose of "Farm Aid" was not only to raise money for needy farmers, but to "change the attitude or the average American towards their hard and eggs in the morning."

The 14-hour marathon included performances by country and folk legends such as Arlo Guthrie, Bob Dylan, Merle Haggard, Hoyt Axton and Tanya Tucker. Rock performers Billy Joel and John Cougar-Mellencamp also donated their talents. The tickets for the concert, which cost $17.50 each, sold out in three days.

The "Farm Aid" concert was second in a series of goodwill concerts given by top performers. The first, "Live Aid," benefitted starving people of Africa. Rock stars from both the United States and Europe banded together to raise more than $58 million for poverty-stricken Africans.

The "Farm Aid" concert, however, did not raise as much as promoters had hoped. The television audience pledged between eight and ten million dollars. Although this does not include donations and revenue from tickets and concessions, the total still did not reach the $50 million anticipated by organizer Nelson.

There are several theories explaining why the "Farm Aid" concert did not meet its fundraising potential. One relates to the controversy caused by performers who publicly endorsed a bill proposing increased government price supports. Some feel that farmers were disappointed that performers would advocate such a bill.

The "Farm Aid" concert also fell behind its "Live Aid" counterpart in donations because it did not have the extensive television coverage that "Live Aid" had. Only twelve hours of the "Farm Aid" show were televised by the Nashville Network, while "Live Aid" received both MTV and national network coverage.

The plight of starving Africans also may seem more compelling to viewers. There is no film footage of American farmers close to death from starvation, as there is of the masses in Africa. Daily, the American public is bombarded with photos of children dying in Africa, and the average American is not even aware that farmers in the United States are struggling.

It is public knowledge that not all American farmers are in need of funding. In fact, some are quite sound financially, and the public knows this. Yet, there are struggling farmers who do need help, and for them, "Farm Aid" did raise millions of dollars.

The question is, how much good did the concert actually do? Are there farmers who will really benefit because of Willie Nelson and his gang of conscientious co-stars? How much effect do these mass fundraisers actually have on the needy?

"Psychologically, the concert was beneficial, but other than that it will not do much good," said Kenneth L. Robinson, a professor in the Department of Agricultural Economics. He added that "Farm Aid" helped to make the public aware of the farmers' problems, and made the farmers feel that someone cares.

John R. Brake, also a professor of agricultural economics, agreed that the "Farm Aid" concert will not solve the struggling farmers' problems. "The United States farmers probably have a $200 billion debt, and at 11% financing, the interest alone is $22 million," he said. Brake said that if the $10 million raised by the concert were used to help individual farmers who are having trouble feeding their families, it could be beneficial. He agreed that the concert publicized the problem to the American people.

The efforts of Willie Nelson and the 50 other stars who were involved with the "Farm Aid" concert were not in vain. Although they did not raise enough money to put a dent in the farmers' debts, they did arouse the public's interest in this important issue. The concert, like the "Live Aid" show it was patterned after, will long be remembered as an effort to help those in need.
Hunger and malnutrition exist in our world. They are widespread problems of unknown proportions and with unclear solutions. What can be done? Is food aid the answer? How much food is needed, and where will it come from?

Unfortunately, simple answers to these questions do not exist. In his recent paper, *International Food Aid*, Professor Kenneth L. Robinson, agricultural economics, MS ‘47, stated, “The lack of accurate data regarding current levels of consumption of food in developing countries makes it impossible to determine with any degree of precision just how much food would be needed to eliminate world hunger.”

According to the projections made by the International Food Policy Research Institute, grain import requirements by developing countries could increase by as much as 80 million tons or as little as 20 million tons by 1990.

In short, the necessary amount of food needed to solve world hunger and malnutrition is unknown. However, uncertainty is no excuse for inactivity, so aid must be administered as it appears to be needed.

The greatest contributor of world food aid in the past 25 years has been the United States. Ten million tons of aid was provided by the U.S. to India in the mid-1960s. According to Robinson, Congress has allocated between $1 and $1.5 billion per year for food aid since the mid-1970s. That allocation has enabled the U.S. to send between 5-7 million tons of food each year to the needy overseas.

Has this aid helped? “The United States and other exporting countries have done reasonably well at meeting emergency food needs during the past two decades,” stated Robinson. However, he believes the problem of chronic malnutrition has been dealt with less effectively. “The principal problem in most countries is a shortage of calories,” Robinson said. “Whole grains, especially if supplemented with a vegetable protein, will satisfy a high percentage of the nutritional requirements of children as well as adults.” In addition, these types of foods are less expensive and more readily available than high-cost protein products, such as beef. “The United States alone could provide enough grain to more than double food aid contributions over the next few years,” stated Robinson.

“It is principally a problem of distribution caused by poverty,” said Robinson. The people who are malnourished are the ones with no money to buy food and no land to grow it on. “Increasing food production within the country should receive the highest priority,” Robinson said. The developing countries need to work to reduce poverty and increase employment.

In some areas, the problem is logistics one, Robinson said. Transportation from the ports inland is poor, seasonal rains make distribution difficult, the political situation is dangerous or the administrative capacity to distribute the food is limited. This is especially true in Africa. “Some of the African governments have asked us to stop sending food because they have no way to transport it from their ports,” Robinson said.

Robinson sees food aid as a good way to deal with short-term food shortages, however, the problem of dependency can occur. “Over-reliance (on food aid) can harm incentives,” said Robinson. He expressed the feeling that too much aid can cause a country’s government to look for a long-term answer, instead of an immediate one. The need to help themselves out of their situation quickly is greatly reduced when they know their needs are basically being met from the outside, Robinson said.

Robinson believes a solution to the problems of world hunger and malnutrition is physically foreseeable in this generation. However, “I am less optimistic as to whether we have the political will,” he said.

The idea of attaching strings to food aid, such as no aid to countries that do not have equal rights, is wrong, according to Robinson. “I am in favor of granting food for humanitarian purposes,” he said. Robinson stated that the more strings we attach, the less likely the food-deficit countries are to take our aid. “The alternative is to provide food for hungry people,” he said.

Robinson concluded, “Food aid obviously presents some difficult moral choices. Managing food aid, even with the best of intentions, is not an easy task.”

Feed the World: It’s Not an Easy Task

by M. Elizabeth Farrell '87
December 25, 1954 marks a sad day in the history of Cornell University for this day marks the death of Liberty Hyde Bailey, inspirer of men, founder of organizations, promoter of programs, and author of a pile of literature that extended far past his own height if piled on top of each other. Bailey, perhaps know best at Cornell for his accomplishments as dean of Cornell's agricultural school and his establishment of a horticultural program, had an unfathomable appreciation of nature.

Bailey was born March 15, 1858 on a farm near South Haven, Michigan. In this atmosphere, Bailey discovered his love for nature. At age 14 he read a botany text by Asa Gray, the leading figure in American botany, and started keeping a formal herbarium, pressing his plant specimens and finding their names. In a few years, Bailey left his farm to go to college at Michigan Agricultural College where he started to establish himself as a famous horticulturist. He graduated in 1882 with a BS in botany. Bailey claimed, "One always meets a congenial soul when he meets a botanist, one who sees in Nature a constant, intricate, friendly beauty."

Upon graduation Bailey worked as an assistant to Asa Gray himself at Harvard University. The job offered long hours and low pay but a chance to work with the infamously master in his profession. In 1885 Bailey returned to Michigan Agricultural College as a professor of horticulture.

In 1888, Bailey came to Cornell University. He came as teacher, researcher, author, and eventually dean. Here he supervised experiments and research in hybridization, fertilization, plant diseases, and much more. He wrote journals and encyclopedias in horticulture, taught courses, supervised experiments, and lectured around the state on various horticultural topics of concern to the New York state farmers.

Under the supervision of Bailey, a nature study program was developed, establishing a connection between the University and the public schools. Bailey provided leaflets and training for the teachers to the schools so students could be taught "learn by doing" nature study. For Bailey the purpose of the nature study was to place the child "in living sympathy with everything that is."

At the same time, with Bailey's coaxing, state-wide Junior Naturalist Clubs for young children were being organized. Bailey stated, "We want to reach every child in New York state; and we hope that others will carry the movement beyond our boundaries and make it better."

While at Cornell, Bailey also established extension work with students doing field experiments in horticulture, organized the Horticulturalist's Lazy Club for graduate students and founded the Cornell Horticultural League which acted as a correspondence bureau for the collection of new horticultural material sent from graduated students all over the country.

In 1903 Bailey became dean of Cornell's agricultural school and though he dreaded the routine of administration and resented the time taken from his writing and lecturing, he realized the potential this position offered for putting many of his ideas into practice. He first persuaded the New York legislature to establish a state-supported agricultural school and so the State College of Agriculture came to Cornell. Bailey also added numerous courses in soils, plant industry and more to the curriculum.

In 1908, however, Bailey wrote to a colleague, "I have given up completely all my former touch with botanical and scientific subjects." So in 1913, he retired to do what he liked. He wrote The Holy Earth, published in 1915, to attempt to state his basic philosophy of life. "If God created the earth, so is the earth hallowed, and if it is hallowed, so must we deal with it devotedly and with care that we do not despoil it, and mindful of our relations to all beings that live on it."

Bailey's interest became traveling the world collecting plants and in 1935 he gave to Cornell tens of thousands of specimens for a botanical-horticultural library named the L. H. Bailey Hortorium. Bailey continued collecting specimens until he was confined to a nursing home shortly before he died.

Liberty Hyde Bailey was an active man, a natural leader with an unmatched respect for nature. He laid the foundation for the fine educational program in agriculture at Cornell. But Bailey was not just a figure who was never seen but always heard. He was a leader, a teacher, a lecturer, an author.

by Shari Tibbetts '87
Alumni Awarded

Five Cornell alumni were honored by the Alumni Association of the New York State College of Agriculture and Life Sciences this September. The Alumni Award is presented to graduates of the college who have made a significant contribution to the betterment of society through involvement in humanitarian undertakings or who have demonstrated leadership ability in their vocation. The first award was given in 1977.

The 1985 recipients were:
Edward L. Bernays BS, ’12—known as the “Father of Modern Public Relations,” he pioneered the application of social sciences to the practice of public relations.
Richard C. Call BS, ’52 and Robert V. Call Jr. BS, ’50—co-owners and managers of My-T-Acres, Inc., a 7,000 acre cash crop and dairy farm in Batavia, New York.
Daniel M. Dalrymple BS, ’27—served for 13 years as assistant commissioner of agriculture and markets in New York state and contributed to the Agricultural Districts Law in New York.
H. Bryan Neel III, BS, ’62—authority in the application of cryogenics (therapy by very low temperatures) for tumor disease and in tumor immunology.

Appointment

Malden C. Nesheim, Director of Nutritional Sciences at Cornell University, became president of the American Institute of Nutrition at their meeting this year.

Nesheim is known for his research on amino acid metabolism and intestinal parasitism. He is currently directing research on the Ascaris infection in Panama, which was discussed in a World Health Organization symposium he helped to organize last year.

As president of the institute, he will lead the society, which publishes the Journal of Nutrition and promotes nutrition research to benefit health.

Writing Achievements

Yong H. Kim, a science writer for Cornell University, has been given the top award in a writing category from the Agricultural Communicators in Education (ACE). ACE is an national organization of writers, editors, broadcasters and other professional communicators. Kim received the "Outstanding Professional Skill" award for a set of five separate articles he wrote on various Cornell research projects.

William J. Jewell, professor of agricultural engineering and Randolph M. Kabrick, doctoral candidate in agricultural engineering, have put together a research paper in memorial of the Korean scientist Ung Jan Han, who died two years ago, when Soviet fighter planes shot down a Seoul-bound plane. Han had spent a year as a visiting research scientist at Cornell, where he had conducted research in low-cost waste treatment processes.

Jewell and Kabrick compiled Han’s research data and put together the technical paper, which was recently presented at an Industrial Waste Conference at Purdue University.

The paper, “Waste Activated Sludge Digestion with Thermophilic Attached Films”, will be submitted to the journal of the International Association of Water Pollution Research.

Turkey Award

Bob Bitz, ’58, former Alumni Association president, presented Glenn Dallas, ’58, with a token turkey at the CALS Roundup for his leadership in membership campaigning for the Alumni Association. Bitz, who owns a turkey farm in Plainville had earlier agreed to give a live turkey to the leaders in the campaign from any of the 30 districts involved.

Dallas, Vice-president of ADT Security Systems in Alexandria, Virginia, laughed at the gag but didn’t quite know what to do with the turkey. Bitz, however, offered to take it off Dallas’ hands.

New Fruit

Four new fruit varieties, with potential for both commercial use and home growing, have been released. The New York State Agricultural Experiment Station, Geneva, has developed a new variety of a straw-
“Fine and modern.”
“It’s ugly and needs a paint job.”
“The biology labs are really nice.”

These are just some of the diverse reactions heard around the Cornell campus this year. What University residents are talking about is the latest addition to the campus and to the College of Agriculture and Life Sciences—Academic II.

Located on Garden Avenue on Lower Alumni Field, the building stands between Teagle Hall and the ag college’s other recent addition, the Corson-Mudd biological complex.

Academic II is the result of a long, problem-filled history, and a desire on the part of the College to expand. The idea for Academic II was first proposed in 1978. Originally, the plan was to construct two buildings on the ag quadrant, Academic I and Academic II, and raze five other buildings, Caldwell, Comstock, Stone, Roberts and East Roberts halls.

Following some uproar on campus, the College decided Academic I would be built on the open end of the quad; Stone, Roberts and East Roberts would be torn down; Comstock would house the University’s telecommunications systems; and Academic II would be constructed where it now stands.

Many changes in plan followed. Academic II was scheduled to open its doors a short time before Academic I was finished. The original proposed design for Academic I, however, met with such great campus resistance that it had to be scrapped. The newly approved design calls for a shorter building with a large auditorium and cafeteria. Construction is scheduled to begin shortly.

The foundations for Academic II were laid in the summer of 1982, and the building was scheduled to open this past spring semester. However, construction was not yet finished, causing some last minute room shuffling for lectures and sections in January.

Academic II finally opened for classes in August this year. The building contains the Department of Entomology, part of the Department of Media Services and the Introductory Biology program.

J. Christopher Whittle, director of Media Services, is pleased with his department’s new home. “There is no comparison between Academic II and our old offices in Roberts Hall,” said Whittle. “It’s the difference between night and day.”

Whittle said the building was designed so space was equally divided. According to Whittle, every faculty or staff member has the same amount of office space. There is no extra storage space or places to put excess materials. “Academic II is modern, but not luxurious.”

The basement of the building consists of five lecture-type classrooms. The rooms were not part of the original design, but were added when new plans reduced the number of stories from seven to six.

The first floor of Academic II contains both media services and the introductory biology facilities. Mary Hohenhaus ’87 has Introductory Animal Physiology in the building.

“It’s great to have the intro bio courses all in one place,” she said. “Cornell’s biology department has such a fine reputation and if they are supposed to be in the forefront in that area, then it should be reflected in the facilities.”

In September of this year, the College decided to transfer the name ‘Comstock Hall’ from the building on the ag quad to Academic II. This change is to honor John A. Comstock and his wife, Anna B. Comstock. John Comstock established the entomology department here, while his wife was the University’s first female professor. The upper floors of Academic II are home to the College’s entomology department, and their famed insect collection.

Ezra Cornell said “I would found an institution where any person can find instruction in any field.” The College continues to adhere to Cornell’s philosophy, by expanding its facilities and adapting to change.
ABOUT THE ISSUE

The beginning of a new year brings with it renewed hope and resolutions to make the next twelve months the best ever. It is fitting that the first Countryman issue of 1986 will examine Cornell beginnings. This issue reveals the origins of certain campus traditions and the story behind the song, “Give My Regards To Davy.” We also look at new developments, such as the recently established Big Red Alumni Marching Band and the new law on alcohol purchases.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays ’12. Faculty advisors: Linda Myers ’64, Jane E. Hardy ’53.

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THEY SLEEP THE WINTER AWAY

by Judith Zwolak '87

While many of us bustle about in layers upon layers of warm clothing during the cold winter months, insects around us are taking it easy. By decreasing their metabolism and respiration rates, most insects spend the winter in a type of hibernation, "sleeping" through the season. However, we do share a common way of surviving the winter with insects — alcohol. Just as a hot brandy or shot of whiskey can warm us up on a blustery day, insects need glycerol, a simple alcohol, to last through the winter months.

The hibernation-like state that insects enter to "overwinter" is called diapause. During diapause, development, feeding, heartbeat, breathing and activity decrease. The insect also builds up a fat supply which will supply nutrients it needs to survive.

"Insects will also get rid of a lot of water before winter and replace it with glycerol," said Prof. James Liebherr MS '74, assistant professor in the Department of Entomology. Glycerol has a lower freezing point than water, Liebherr explained, so when temperatures drop below 32° F., the insects won't freeze. "In addition, insects will void their gut to get rid of impurities," he said. Since water freezes by first forming crystals around impurities, the insect's innards must be free of them.

Insects prepare for the winter this way so they can survive without freezing or starving. How do they know when to start preparing for the cold ahead?

"Decreasing daylength turns the diapause mechanism on," Liebherr said. Were insects to wait for the harsh winter weather to begin, they would probably die, so this secondary, predictable factor is a more beneficial way for insects to enter into diapause. These shorter days signal the insect's endocrine system to begin secreting glycerol. "Breaking" diapause in the spring, however, is usually in response to warmer temperatures, Liebherr added.

"Most overwintering is done in the larval stage," Liebherr explained. "Larvae dig down into the soil or under leaf piles or bark and find a dry area which is out of the wind and has a temperature not much below freezing." He added that the worst thing that could happen would be for the larva to stay in a wet place and become frozen in, unable to obtain oxygen. "The most important things about a place to overwinter are good moisture conditions and moderate temperatures," he said.

The first deep frost kills off many adult insects who regenerate their species by laying eggs which can survive harsh conditions. Grasshoppers, many aphids and some moths all lay eggs with hard cases, allowing the egg to lie dormant through the winter, Liebherr said. This procedure of overwintering in the egg stage is essential because the insects must undergo a cold shock in order to continue their development. Dormant winter months supply this necessary cold shock.

Insects that overwinter as adults, such as flies and beetles, also rid themselves of much of their body's water and enter into a dormant stage. Their metabolism decreases, but not to the extent that eggs and larvae do during diapause. In addition, their reproductive systems are shut down until spring. They usually overwinter in warm, natural cavities or hide in between walls, Liebherr said.

"Some insect species do best in the winter," Liebherr claimed. "For instance, the snow flea lives in the leaf litter under the snow and feeds on decaying matter," he added. "If the weather warms up during the winter, you can see them hopping around on the snow." He also said that some beetles thrive during the cold months, as do winter scorpion flies.

Many of us would find the insect's way of dealing with winter very attractive. Who can resist the temptation to tuck in and sleep away those frigid months? However, we lack the incredible physiological mechanisms insects have evolved to survive the harsh season. So while insects around us are "sleeping" the winter months away, we must be content with strapping on our long underwear and galoshes and braving the cold outdoors.
4:00 a.m.-Wake up. 4:01-Yawn. 4:10-Put on work clothes (don’t forget hat). 4:20-Tiptoe out and run to the pick-up area to meet the other baggy-eyed volunteers. Yes, siree, it was time to pick pears.

The two summers I spent on Kibbutz Lavi, in the Lower Galilee of Israel, taught me more about myself and about sharing and appreciation, than I feel I will ever learn any other way.

Kibbutz life is completely different from the life many of us lead in America. We are constantly on the go, worrying about money, jobs, deadlines and what Mr. Future has in store for us. Those who live on a kibbutz, or “kibbutznicks”, are settled, laid back and have no need to worry about money or a job.

The culture shock I experienced was overwhelming, yet so inspiring that I’m sure it will remain with me for the rest of my life. Coming from an upper-middle class family and having been somewhat spoiled, I was not used to waking up at absurd hours of the morning (even the birds are sleeping at 4:00 a.m.) to be driven 20 minutes in a broken-down truck to pick pears. And, believe me, picking pears correctly is no easy task.

By the time we had set up the trucks and ladders, I had had a cup of tea, three pears and the beginnings of a queasy stomach. The group leader instructed us that when we pick the pear we should be careful not to pick it with too much of the stem or no stem at all; only an inch of the stem should come off with the pear—not simple. If the pear was “negated,” as they call it, we threw it into a large bin. Let me admit here and now to relieve myself of some guilt, that most of the negated pears were mine.

By late morning, the sweat had accumulated under my nose and on my chin and the appreciation of the hat covering my head increased proportionally with every Fahrenheit degree. Watching everyone else pick pears, from twelve-year-olds to forty-five-year-olds, and knowing that my other friends were somewhere on the kibbutz working just as diligently, contributed to the “all for one and one for all” feeling that made the experience so satisfying.

I kept a journal of my thoughts and feelings throughout my stay on Kibbutz Lavi ... (July 26):

"...and I thought to myself, ‘What am I doing here? Why am I picking pears in a foreign country?’ Well, I’m meeting people from all over the world who are sharing and working in this little environment. I feel like I’m experiencing a world of theoretical socialism, if there is such a world. I’m experiencing some very cool give and take here...”

The sharing philosophy that exists in a community such as a kibbutz is intriguing to me. The idea that money is not important is a difficult one to accept. But it’s simple. There are living quarters, like little apartments, a large kitchen and dining hall, an enormous laundromat, and central areas for things like furniture and electrical supplies. The kibbutznicks have animals and grow their own food. And there is trade among the kibbutzes; this supplies them with revenue.

All one needs to do is to contribute to one of the jobs and in that way you are doing for others and others are doing for you. After an eight hour shift of pear picking, it was a relief to walk into the kitchen and find others preparing my lunch (which often consisted of, among other things, pear sauce, pear juice and pears, for dessert).
Other jobs I became skilled at included working with children in a day camp setting, folding laundry, preparing lunches for the masses, and cleaning endless amounts of dishes. I loved it. The people I worked with and worked for became a second family to me.

After I put in my hours of work, I had the rest of the day to myself. I could go swimming, read, sleep (which soon became a high priority after eight hours of picking negated pears) or meet some interesting people. Having spoken with some of the ladies in the kitchen, I came to a few conclusions about my life and life in general... (August 12):

"... and then I walked up to Trudy and she too said she had been

for a LIFETIME

Many kibbutznicks have found an inner peace, a feeling of being settled that brings with it security and a lack of stress, of which many of us in our fast paced world will never know. I was privileged enough to experience this way of life, as tough as it was, and as a result have grown to appreciate all the luxuries that surround me in America.

When the airplane landed at Kennedy Airport on that sticky August morning, I could not believe the parade of good things that I witnessed. My father pulled up in a car. We had a car—and with carpeting, no less. Not only that, but dad had just gone shopping and he bought Ring Dings and Tropicana orange juice. How could these things have seemed so trivial to me before my trip? We easily take for granted what is effortlessly ours, but when it is taken away we tend to change our perception of its value.

An interesting change occurred that I became aware of only after I returned to Long Island. My attitude toward doing work, especially house chores, had gone from one end of the spectrum to the other.

When I think back to how big a deal everything was, doing the dishes or folding the laundry, I have to laugh. If I could spend an entire morning preparing lunch for 600 people, I could certainly whip up a salad for five. The thing that really kills me is the phrase "doing the dishes." Where did I ever find the gall to complain about putting dishes into a machine?

Your attitude depends on your perspective. My perspective changed completely when I learned and experienced a different way of life. Today, a pear in the supermarket looks very different to me because I know the effort that went into getting it off the tree.

I feel confident in saying that no experience has ever added more dimension to my life. One good way to learn more about who you are is to give yourself a change of perspective. Entering a new environment changes you; you see a different side of yourself with thoughts and capabilities you never knew of. At that point you become fuller, richer. And you realize that it's those things that you thought were trivial that really have meaning.

by Leora Brayer '86
Each year, as the mercury begins to fall, Cornellians prepare themselves for the onslaught of an Ithaca winter. Their heavy woolens, caps and gloves are unpacked in anticipation of the biting wind and chilling cold. It is not until the first blanket of snow covers the ground, however, that Cornellians Beebe Lake was the center for skating and tobogganing.

The Cornell Minor Sports Association maintained the surface by selling skating and tobogganing tickets. Johnny Parson, an engineering professor, built and maintained the first hockey rink on the lake in the 1880s.

By keeping about half the lake’s surface free from snow, the association provided enough ice to accommodate hundreds of skaters and the Cornell hockey team.

Perhaps the most exciting winter activity at Beebe Lake was the toboggan slide. The double slide nearly always drew long waiting lines on afternoons and moonlit nights. A load of coasters would climb to the top, and then would go crashing down the ice trough of the slide. On leaving the incline, the toboggans would shoot onto the vast expanse of Beebe’s iced surface. If conditions were favorable, their momentum would carry them to the far shore of the lake.

The toboggan slide, however, was a worry to the administration, for it was obviously dangerous. One student attempted to go down the slide on skates and was knocked unconscious. Eventually, the University dismantled the slide.

Skiing was another winter activity that many Cornellians took part in. Some skied down the long hill slopes at Beebe Lake’s east end, while others simply skied down Library Slope.

From sliding down the toboggan slide to traying down Libe Slope, Cornellians of the past have had no problem occupying their free time in winter. But where does that leave our present-day Cornellian? Beebe Lake is almost nonexistent, traying is illegal, and the toboggan slide is gone forever.

Fortunately, all is not lost. The hills beyond North Campus are perfect for sledding and Lynah provides a rink for skaters. Hockey games are exciting alternatives to nights spent at the toboggan slide. Although the traditions of the past are missed, Cornellians continue to have fun in winter.
CHARTING ITHACA'S CHANGING WEATHER

by J. Patrick Kennedy '86

Rare is the day in Ithaca when its citizens are not threatened by an approaching front, a debilitating blizzard or at least a gale force wind. Ithaca's ever-changing and unpredictable weather patterns have long been a source of dismay for college students and residents alike.

While many Cornellians revel in lurid descriptions of the abysmal weather forces that affect their day-to-day lives, it is the responsibility of some to demystify Ithaca's weather. For that reason, members of the Cornell Chapter of the American Meteorological Society have produced The Ithaca Weather Calendar for the second year.

Grace Musumeci, a graduate student in the Meteorology Unit of the Department of Agronomy in Cornell's College of Agriculture and Life Sciences, directed the efforts that led to the first two calendars. "The underlying purpose of the calendar is to get weather information and data about the Ithaca area to students and people in the community," she said.

The Ithaca weather almanac resembles a normal hanging wall calendar. Posted for each day are times of sunrise and sunset, as well as historical weather data for that day of the year. By glancing at the calendar, one can note the average and the record maximum and minimum temperatures for that day.

On the upper half of the calendar are monthly data describing such phenomena as average monthly rain and snowfall and temperature extremes. Text sections also contain interesting tidbits about scientific weather lore for the month and information for birdwatchers.

The back pages reveal special sections on snowfall in the Ithaca area and meteorological trends and definitions. They even take a look at foliage timing and color expectations during the autumn months.

According to Musumeci, the historical data was culled from Northeast Regional Climate Center weather data publications. The calendar gives readers expected norms and patterns to compare with actual daily measurements. It does not purport to be predictive. "At this stage of the game it is impossible to forecast the weather for a whole year," she said.

"By looking at the calendar you can see any major discrepancies from normal and make your own predictions from trends."

Musumeci credits Tom Schmidlin PhD '84 with initiating the idea of the weather calendar at a meeting of the CCAMS. She took control of the project from there. In 1985, financing the printing of the calendar proved to be the major hurdle. The problem was solved when Carol Halseth, graduate secretary in the Department of Agronomy, solicited advertisements from local businesses. A grant from the Student Finance Commission provided funding for this year's edition, which was printed by Cornell's Media Services.

Revenue from selling the calendars will fund CCAMS, according to Musumeci. It is available for $3 per calendar at 1110 Bradfield Hall or can be ordered through the mail.

Musumeci said her main goal in working on the calendar was to gain a sense of accomplishment in creating and informing, not to raise money. "People talk and joke about the weather," she said. "In a very fun way, the weather calendar can make people more knowledgeable about the Ithaca weather."

"The calendar might make people realize that Ithaca weather is not all that bad. We do not have terrible extremes in the form of prolonged snowstorms or heatwaves that would make it unbearable."
Foxfire
It's Hot!
by Debbie Morel '86

In 1966 Eliot Wigginton BA '65, MA '66, began to publish Foxfire, a magazine about the culture of the Southern Appalachian region. The project started as a way to get his ninth- and tenth-grade English classes interested in the language arts, but it soon blossomed into much more. The students discovered a heritage they hardly knew and a "sense of grounding" which Wigginton said is essential.

The Foxfire program began as a series of magazines which Wigginton and his students started compiling into volumes. Currently there are eight Foxfire volumes in which you can find instruction and information about spinning and weaving, midwifing, gourd banjos and songbows, wooden locks, horse trading, sassafras tea, hide tanning, summer and fall wild plant foods, and other "affairs of plain living.” However, Wigginton and his students did not stop at publishing their magazine articles. Wigginton and the students have expanded Foxfire Fund, Inc. to include several other elements. Production of radio broadcasts, television shows for the community cable-TV station and record albums of traditional Southern Appalachian music are three projects, to name just a few.

The students are involved in all aspects of any projects they undertake. They gain knowledge and hands-on experience in writing, editing, photography, and radio and television broadcast production.

Wigginton said he graduated from Cornell with an idealistic attitude toward his new career. He wanted to go to the Rabun Gap-Nacoochee School in Georgia to instill his enthusiasm for language arts in the students. However, he was disappointed and frustrated to find that the students did not share his enthusiasm for reading and writing. “I went to the rural community of Rabun County to teach, straight out of Cornell, and I was faced with students, the majority of whom hated language arts,” he said.

Although the students’ disinterest in English frustrated Wigginton, he was even more distressed at how little they knew about their Southern Appalachian heritage. “The students know virtually nothing about their own background and ancestry,” he said. So Wigginton was faced with a double challenge: to interest his students in preserving their Southern Appalachian heritage and to motivate them to want to learn.

Wigginton attributed the students’ disinterest in their ancestry to a feeling of embarrassment about the Southern
Appalachian region. “People in the United States have stereotypes of the Southern Appalachian region. They picture ‘Snuffy Smith’-type hillbillies lounging on the half-rotted porches of broken-down shacks with pigs at their feet,” he said. Wigginton said the students did not want to be identified with this stereotype.

According to Wigginton, there was also a large generation gap between the students and their parents. “There was a weird kind of time warp. Mothers and fathers were still plowing cabbage fields with mules and their kids were dropping napalm out of F109s in Vietnam,” he said. Wigginton realized that because of false stereotypes and a failure to transfer heritage from one generation to another, the students were losing much of their valuable Southern Appalachian culture.

So Wigginton sent his students out into the community to explore their background. The students interviewed county residents and then wrote about the customs, crafts, skills and personalities which are unique to the Southern Appalachian region. As they improved their writing abilities, the students began to realize “the real ingenuity and courage of their heritage,” Wigginton said.

For Wigginton the real reward in changing his students’ attitudes about their own past was exploding other stereotypes they held as well. “Once you show kids the stereotype about their heritage is wrong, you can show them the stereotypes they carry about other people are wrong too,” he said.

The students who participate in the program and take Wigginton’s classes are conscious of integrating the customs and knowledge of the past with the technology and knowledge of today. “I think that’s what Foxfire is all about; the coexistence of the old and the new,” said Richard Edwards, a student in the Foxfire program. Edwards said the students in the program are currently planning a project which embodies that coexistence. For the first time, students are documenting the step-by-step procedure of constructing a log cabin.

Mark Edwards, a senior in the program, said he thinks interviewing and writing are more effective ways to learn about his Southern Appalachian heritage than reading about it in books or attending lectures. He described an article about “serenading” which he wrote for the Christmas issue of Foxfire. “I thought serenading was just caroling. Actually, it’s when a group of people would go to a farmhouse on Christmas eve and just generally raise Cain. The idea would be to get the owner of the house to give them something to eat and drink. I found out my idea of serenading was wrong, but I found that out in a positive way,” he said.

Wigginton strives to give his students a positive attitude towards learning and themselves. He dedicated the second Foxfire volume to his and all high school students,—”all searching, all groping, all testing for the touchstone, the piece of serenity, the chunk of sense and place and purpose and humanity they can carry with them into a very confusing time.”

Wigginton devised the Foxfire program to show his students that education and a “oneness” with their heritage could be motivating and steadying forces in their lives. He encourages them to use their skills in interviewing, writing, and photography to understand, more fully, their Southern Appalachian culture and, in turn, themselves.

Foxfire students interview “Granny” Lindal Toothman for an article on the Southern Appalachian region.
While some of its neighbors will soon be demolished or replaced, the Albert R. Mann Library stands steadfast atop the agriculture quad. Yet despite its sturdy, fortress-like outer appearance, the inner structure remains in critical need of renovation and expansion.

After unsuccessful state funding requests, the library is now facing a critical situation in terms of its world-renowned collection’s safety, quality and spatial limitations.

“What we have here is an extraordinary investment in an irreplaceable collection,” the library’s director Jan Olsen said recently. “But the legislature is perhaps not sufficiently sensitive to the notion that their investment is eroding daily,” Olsen said, referring to the deterioration due to the quality of the library’s environment.

Mann is the nation’s largest academic agricultural library, boasting more than 546,000 volumes in its collection, but its antiquated stacks are bulging at the seams. Designed in the 1920s and constructed in 1952, there is now a serious lack of shelf space for the library’s collection. Mann has gone without any major renovations or changes since it was built 33 years ago.

The library serves the Colleges of Agriculture and Life Sciences and Human Ecology, as well as the Division of Biological Sciences. Olsen cited three fundamental reasons why the quality of Mann’s collection exceeds that of other libraries.

- Most of the library’s periodical holdings date back to the beginning of their publication, enabling Mann to “perform a remarkable archival function for research,” Olsen said.
- “In a number of instances, Mann owns the only copy (or one of the very few copies) of a scholarly work in the United States,” she explained.
- “And from the outset, Mann has attempted to cover definitely the published scholarly record in the agriculture, life sciences and the social sciences of human ecology,” she added.

While Olsen looks with much-deserved pride to Mann’s strong collections, she is also quick to point out that preservation and conservation play a vital role in maintaining the collection’s strengths. “Today, Mann Library is in serious jeopardy in terms of remaining the nation’s preeminent agricultural library,” Olsen said. “It takes much more to sustain preeminence than a famous name. We’re coasting on our name at this point because of the state’s reluctance to adequately fund staff, service, technology, the research collection and the building itself,” she added. (New York state currently provides the colleges with slightly less than 80 percent of their library funding. Mann’s current annual budget is approximately $1.9 million.)

Although Olsen is concerned with the library’s financial limitations and its ability to make technological advances, her foremost worries remain the building’s self-supporting stack floors and the lack of environmental control. The stacks, she contends, are extremely hazardous because a fire could buckle the exposed steel structural uprights that currently support tons of books. If there were ever a fire of any magnitude in the stacks, it would be uncontrollable, she explained, because the design would create an inferno-like updraft, melting the support pillars. (At the Temple University Library, which had identical self-supporting stacks, a 1960s fire resulted in catastrophic damage.)

University Library Conservator John Dean said there is also a dangerous absence of environmental control within Mann’s collection. “We need to build environmental controls into the system,” he warned, explaining that the library lacks any sort of air conditioning. Problems of book pages with high acidity have become seriously exacerbated by the lack of climate control, he said, noting that it is not uncommon for summer temperatures in the library’s stacks to exceed 100 degrees Fahrenheit.

But the problems do not end there. Olsen cites the building’s impending over-saturation of books, the inadequacy of its study facilities and organizational structure and the library’s “drab esthetic” quality which has been “criticized by students, faculty and staff for over a decade.” The library staff wants to demolish the self-supporting stack floors and to rebuild them to match the building’s floor structure. Olsen also noted that air conditioning and climate control remain a vital priority. Additionally, the colleges are recommending that the building should be expanded and that its front and side wings be renovated and refurbished for a more effective study environment and functional operation.

Collections are expected to grow to more than one million volumes by 2002, even with a significant transition to electronic, microform and videodisk media and a moderate reduction of conventional print acquisitions made after 1990. If Mann Library is to continue developing its collection and maintain its premier posture among agricultural libraries nationwide, the building housing its collection needs to undergo drastic renovation and expansion.

MANN IN NEED
by David Marguleas '86
The Cornell football team enters the field, ready to take on a tough opponent. The Big Red hockey team skates onto Lynah Rink. The crowd roars with excitement, the band plays and those who know the words, sing:

"Give my regards to Davy,
Remember me to Teefee Crane.
Tell all the pikers on the hill,
That I’ll be back again.
Tell them just how I busted,
Lapping up those high, highballs.
We’ll all have drinks,
At Theodore Zinck’s
When I get back next fall."

Although the tune is familiar to everyone as “Give My Regards to Broadway”, the meaning of the words remains a mystery to most. Many students would find it fitting to discover the Cornell fight song “Davy” is about flunking out of school.

credit for work done in another college heard the wrath of Hoy. “Did you expect us to meet you at the station with a brass band when you came to Cornell?” said Hoy.

It was Hoy’s job to send out ‘bust’ notices, informing students they had failed their final exams. If a student received one of these, it meant he would be unable to return to Cornell for a semester.

Hoy was a great baseball lover, and could often be found in the Cornell baseball team dugout during a game, or traveling with the team on their annual spring trip down south. In 1923, for his commitment to the sport, Hoy Field was named in the famed registrar’s honor.

While David Fletcher Hoy stirred fear among students, Prof. Thomas F. Crane invoked a great deal of warmth. Nicknamed “Teefee” during his undergraduate days at Princeton because of his initials, Crane was one of the original faculty members of the University. A professor of romance languages, he was not initially popular with members of the student body, who called him “Vinegar Crane”. In 1896, he became the first Dean of the University, began to soften his temperament and became well loved by the students. Crane also served as Dean of the University and as acting president of Cornell for the years 1899-1900 and 1912-1913, when Jacob Gould Schurman took temporary leave of his post. Crane was the last member of the original Cornell faculty when he died in 1928.

Crane was amused by the song “Davy” and liked to tell a story about it. On a visit to the University of Minnesota, Crane discovered the students knew the song there as well. However, they did not know what the words meant, and assumed Teefee Crane was an Ithaca barkeep.

Although Crane was no barkeep, Theodore Zinck was. Located on North Aurora Street in the Hotel Brunswick, Theodore Zinck’s was so popular that a student had to get there very early in the evening to get a table. Cornell songs filled the air, as Zinck’s patrons drank imported German beer. Although the bar has been torn down, its spirit lives on. Each year, Cornell seniors buy “Zinck’s Cards” and celebrate in Ithaca bars.

The Cornell running back makes an amazing dive over the goal line for a touchdown. A Big Red hockey player skates past an opposing defenseman to score a winning goal. The crowd screams, the band plays, the fans sing the praises of Davy and Teefee Crane. The meaning may not be known, but like the thousands of Cornellians before them who sang the song, the students are keeping the Cornell spirit, and the Cornell tradition, alive.

Simply put, “Davy” tells the story of a student being thrown out of the University, for caring more about his social life than his studies. Despite being kicked out of Cornell, the student promises to return to the University next fall.

“Davy” in the song is David Fletcher Hoy ’91, who served as University Registrar from 1895 until his death in 1930. During September in the early days of Cornell, freshmen would wait in line outside Morrill Hall to register in front of Hoy. It was an experience they dreaded. Freshmen would tremble so with fear when they appeared before Hoy, they would be unable to sign their names. According to O.D. von Engeln’s At Cornell, it was legend that on the door to Hoy’s office were the words, “Who enter here, oft leave Cornell behind.”

Hoy, a stickler for rules, determined entrance credits for freshmen. One student, failing to get even partial

Part of Cornell legend: Teefee Crane, left, and David Fletcher Hoy.

by Scott J. Pesner ’87
The family members look at each other and smiles light their faces. The bonds that hold this group together are strong, lasting and deeply felt by those gathered for this happy occasion. Some of them have traveled thousands of miles to be here, just to spend time with people they love and share a common history with. But this family reunion has a strange twist to it—few of its attendants are related—by blood that is.

These people, gathered at Cornell University for Homecoming Weekend, are all part of the Big Red Band "family," as it is affectionately called by its members, past and present. They have gathered on this weekend for a homecoming of their own, and to perform together as the 4th annual Big Red Alumni Band at the 1985 Homecoming football game.

Cornell’s Big Red Band has very strong feelings for its alumni. In short, they love them. Without alumni support, there would be no band, and what would a football game, or a hockey or basketball game for that matter, be without a band playing pep songs? The members of the Big Red Band and its alumni do not want to find out.

When the band’s affiliation with the Department of Music was ended in 1981, most of its funding was lost. The band was picked up by the athletic department, but more funding was needed. That is where the alumni came in. Through a band newsletter, donations were solicited from past band members, who responded to the need.

In 1982, the band staff realized that the only time the alumni were contacted was when it needed money. According to Dwight Vicks III ’84, Big Red Band drum major at the time, the band realized this was not right. Vicks, with the help of the rest of the band, wrote a letter to each alumnus, inviting each one to become part of the band again. The Alumni Band was born.

During Vicks’ second year as drum major, the alumni were again asked to return, and the response was even greater, with eighty alumni participating. Vicks stated that the increase was partly due to the alumni from the first year telling the others what a great time they had had.

The band’s Alumni Relations Committee was formed in 1984, when it was realized that “taking care of alumni was a full-time job,” said the committee’s first Alumni Chairman, Dwight “Duke” Vicks Jr. ’54, MBA ’57. According to Vicks, the funds donated by the alumni help the band pay for instruments, repairs, uniforms, and road trips.

“The alumni are really appreciated by the band,” said Barbara Werner, engineering ’86. Along with the committee, the elected band member position of Alumni Relations Chairman was created in 1984, and Werner was chosen to be the first person to hold this position.

Due to the unprecedented nature of Werner’s position, she was forced to develop her own style of tackling the tasks of sending out the three band newsletters and organizing the alumni band. “I tried to think of what I would want to remember (when I am an alumnus),” Werner said. Her job was “to keep them (the alumni) informed and happy,” she said.

“The alumni were very pleased with the band,” said Vicks Jr. “And that means greater alumni support.”
The greatest part is seeing the quality of the band,” Vicks said. “It’s so different and so good today.” He pointed out that the present band members work very hard and run the organization by themselves. “There’s not a better band in the country that runs without full university support.”

As a participant in the alumni band, Vicks spoke of the pleasure of returning and seeing old friends. “One of my closest college friends was at the 1985 reunion and I had not seen him since 1954,” Vicks said. “That’s what happens at alumni events.”

Richard Goldstein, ag ’86, Alumni Relations Chairman for 1985, said, “We had 82 alumni return this year.” That is the largest turnout in the four year history of the alumni band. According to Goldstein, members of classes from the forties to the Class of ’85 were in attendance.

“The goal this year was to make the alumni feel comfortable,” Goldstein said. One way this objective was met was by designing a show in which the alumni were an important part. The alumni band usually just walked out onto the field and joined the band.

This year’s show Committee Chairman, Fran Teunis, arts and sciences ’87, had a better idea. “It’s not fun to do a boring show,” Teunis said. “You have more fun if you are challenged.” Using these insights as a guide, Teunis wrote a show that gave the alumni an active part. “They were divided into ranks, just like the band is,” Teunis said.

Teunis and Goldstein taught the alumni the show the morning of the performance. “They were really excited,” Teunis said. “It just went together.”

“Enthusiasm is the heart and soul of this group,” said 1985 drum major Mark Mandarano, arts and sciences ’87. “They (the band members and alumni) played all day with no complaints,” he said. In a word, bringing the two groups together and directing them was, “awesome,” said Mandarano. Other members of the Big Red Band seemed to concur.

Mary Hohenhaus ag ’87 said, “It was fantastic to have so many people come who were still really attached to the band.” Hohenhaus, a trumpet player, helped to check people in as they arrived. She noticed that many of them asked to see who else had come.

“The alumni really have the Cornell spirit,” said Scott Pesner ag ’87. “They reflect that the Cornell spirit never dies.” Pesner, one of the many members who referred to the band as a “family,” said, “You know that no matter how long ago you marched you can always come back.”

“I am always impressed when people come from across the country to play tuba,” said Evan Schwartz, ’86, the leader of the band’s sub-group, “The Big Red Tubas.” The alumni band is a “big deal” to the band members as well as the alumni, he said.

Apparently this is true. When asked if they would return to be part of the alumni band after graduation, all of the band members answered with an unhesitating “Yes!”

The tradition will continue. Today’s band members will graduate, but not before they instilled the strong “family feeling” in those who will take their places on the field, as those before them instilled it in them. The strong alumni-student bond will remain intact.
**TRADITIONS OF CORNELL**

The statue of A.D. White oversees the arts quad.

Cornell's ivied walls host a myriad of legends and traditions, all of which add to the spice of the college life. When I was accepted to Cornell, I was very proud. I decided to show my appreciation for this grand institution by becoming well informed of its tradition. My first encounter with one of Cornell's favorite legends dominated my first few months at Cornell.

It was my understanding that the suspension bridge which links west and north campuses was designed by a senior engineering student. It was also my understanding that the design was faulty, and that the bridge was destined to give way at any time. For weeks I refused to walk across the bridge. I shook my head as my friends trooped off to north campus; I warned them but they never listened. Much to my chagrin, I discovered the story to be a farce. The bridge was in fact constructed by the Owego Bridge Company in 1900 and is not faulty at all.

I got over that, but in the mean time, I learned of another legend concerning the bridge. It is said that a Cornell coed is not womanly unless she has been kissed on the suspension bridge at midnight. I began a vigil. Every night, just before midnight, I went down to the suspension bridge and waited for someone to swoop down (in a Tarzan-like fashion) and bless me with a kiss. I eventually had to give up this late night activity as it was hindering my ability to make it to my eight o'clock class.

My only conciliation for never having been kissed on the suspension bridge is the fact that both Ezra Cornell and Andrew D. White like to see a virtuous woman at their beloved institution. Legend has it that whenever a virgin passes between their statues on the arts quad, they get up and shake hands. No one has actually seen them do this, but I have an uncanny feeling they only do it when no one is around.

Everyone knows that Ithaca's weather is somewhat less than desirable. It precipitates in one form or another at least once a day. But no type of precipitation could have been stranger than what I experienced on the engineering quad one day. As I was walking by Upson Hall I found myself in a shower of objects. A hail storm in May? Couldn't be. When I looked up, I realized that people were dropping the objects. After ranting and raving to the Dean of Students about poor behavior of the student body, I was politely informed that I had walked through the middle of the annual Engineering Egg Drop.

Each year engineering students have a contest to see who can devise a way to keep an egg from breaking when dropped from a fourth floor window. Students use everything from popcorn to parachutes. In 1981, four students created an "Egg Shuttle" which with its four rockets was to soften the landing. Unfortunately, the shuttle malfunctioned and the egg broke. It's been rumoured, though that like NASA's Space Shuttle, it is reusable.

Just as the engineers have their day so do the students of the Ag college. Once a year groups of students bring their agricultural displays down to the Memorial Room in Willard Straight Hall. Projects range from cows, sheep, and goats to maple syrup.

Ag students have a nouveau form of advertising. They use the moving billboard. Not having been aware of the tradition, I was quite startled to find a cow leaning over me at the reserve desk at Mann Library. The librarian informed the cow that reserve materials could not be signed out without valid I.D. card.

As if it is not enough to have livestock running around the student union, Cornell has a mythical beast that frequents the arts quad. Freshman architects are annually given the task of creating a green dragon for St. Patrick's Day. Big green footprints begin to appear just before its arrival. When the day comes, the green dragon emerges from Rand Hall with fiery eyes and smoky breath. A traditional rivalry between the architects and engineers at Cornell lends excitement to Green Dragon Day. The engineers pursue endlessly their task of trying to destroy the work of the architects. All in fun, an architect tosses a burning torch on the dragon, and it goes up in flames. I happened to overhear two freshman talking. One asked the other what was going on. The other said, "I think they are protesting cruelty to animals."

Perhaps the most famous, or infamous tradition at Cornell is the abundance of canine species. It is said that a dog-loving alumnus donated a large sum of money to the University on the condition that dogs would be allowed to run free on the Cornell Campus. And they do — there are dogs everywhere, even though no fund exists to support them. They seem to enjoy college life. They attend classes regularly, rendezvous in the ag quad for a quick chat, and pick up an occasional frisbee game on the arts quad.

I've learned a lot in my four years at Cornell. I've learned that the suspension bridge is not going to fall, that cows only visit the library on Ag Day, and that although dogs attend class, they do not take exams. But most of all, I have come to realize how important tradition is. Of course, every school has tradition, but for me, Cornell's is the best. May it live on forever.

by Margaret H. Holcomb '86
A.D. WHITE LIBRARY: A HISTORY WORTH STUDYING

Studying is a full-time occupation for most Cornell students and the desire to find a conducive atmosphere to study is strong. To be sure, Cornellians do not lack places to study. Yet, among the student population, some rooms are more desirable than others, and one rises above them all. The President Andrew D. White Library within Uris Library is the place to study for serious undergraduates and has remained so since its dedication in 1891.

Upon entering the White Library, students are transported into a bygone academic era. Little has changed since the opening of the library. An enormous chandelier hangs from the ceiling above a large table. Two-story windows flank a brick fireplace and offer a breathtaking view of the Ithaca landscape. The three-tiered wrought iron stacks are the most striking aspect of the room. They line the walls from floor to ceiling and contain small study alcoves on each level. Overall, the effect of the room is inspiring. It is a fitting home for the collection of Cornell’s first president, Andrew D. White.

At the opening ceremonies of the University Library on October 7, 1891, A.D. White donated his personal library to the University. He had been collecting since boyhood and had accumulated more than 30,000 volumes by the time of transferral. As a child, he became impressed by the importance of collecting and preserving manuscripts. On a trip to Europe after graduation from Yale University he spent most of his time in bookshops and continually wrote home for money to make book purchases.

As a history professor at both the University of Michigan and at Cornell, White realized the need for more historical literature to be used by both himself and his students. “Many journeys in our own country and abroad added to it; the study of each new historical period opened up new necessities as to books... all four quarters of the globe have thus been laid under contribution.”

A.D. White devoted much time to the expansion of his collection until 1879 when the bulk of the responsibility was given to George Lincoln Burr, a friend and former pupil. At the donation of the collection in 1891, Burr became the official caretaker of the White library and dedicated his life to its further expansion and preservation.

Burr directed the transfer of the private library to its new home in the University Library. He was quite impressed by the room and took especial pleasure in the large fireplace and the reading alcoves, placed amidst the shelves. He commented that he had never been in a room which “gave one such an idea of the multitude of books. You see and feel them all.”

During its earliest days, the White Library was open only to a privileged few. A note written by Burr, appearing on the door of the library read, “Study in this room is a privilege reserved to graduate and advanced students of history. . . . Faculties and visiting scholars are, of course, welcome . . . . Only those welcomed to study here should take books from the shelves or mount to the Galleries.”

The small study tables in the alcoves of the iron stacks were places of honor awarded only to those of the highest status. From each desk there is a spectacular view of Cornell’s west campus and the valley beyond. Every year these desks were reassigned to faculty members. Burr has recorded, on notes dating from 1891, the desks assigned to himself and A.D. White.

Today, most of the manuscripts of White’s original library are dispersed throughout the campus. Many are preserved in the Cornell Archives and in the A.D. White mansion, currently used for seminar study. Yet, the President A.D. White library retains its original character, if not the original books. Amidst the portraits, paintings and memorabilia donated by White hangs his own portrait, as well as Burr’s. Both preside over the collection they lovingly created.

The White library has long since been open to all students, but an empty desk is not easily found. Undergraduates scramble for a seat in one of the eight alcoves or in front of the large panoramic windows. They are surely attracted by the beauty of the room and the history it imparts. Yet, some sensitive students may feel the passion for learning of White and Burr in those desks; and if they get the right one, well, who knows what inspirations might ensue?

by Ruth Citrin ’87
HERE'S THE SCOOP

Imagine rich, chocolate ice cream, packed with pecans, almonds, raisins and chocolate chips in one flavor. How about a creamy vanilla made with real Kahlua or large chunks of Heath Bars? For those with a sweet tooth for unusual flavors and incredible tastes, Ben and Jerry’s ice cream offers 36 unique choices.

Six years ago two high school friends made an investment of $8,000 which has since turned into an eight million dollar business. Ben and Jerry’s ice cream has joined the ice cream market, alongside popular brands like Häagen Dazs and Früben Gladje. However, President Ben Cohen said, “Ours is the only super premium whose name you can pronounce.” In addition, Cohen said, “Our product is made with 15 percent butterfat and is both creamier and denser than other fluffy, puffed up airy brands.”

Cohen and Director and Legal Consultant, Jeffrey Furman ‘65, gave a lecture at Cornell in November, 1985—“The Entrepreneurial Spirit À La Mode”. Their lecture was part of the Personal Enterprise and Small Business Management Program sponsored by the Department of Agricultural Economics. The two men spoke about their challenges in the business world.

Cohen shared some of the joys and frustrations he and his partner Jerry Greenfield experienced when their business venture started.

In 1978, Cohen and Greenfield decided it might be fun to start some sort of business. However, both men had grown up during the 60’s—a time when young people fought for causes and business was a dirty word. “Business had a reputation for exploiting others and I didn’t want to be associated with that. But I thought that maybe I could have a business that helped people,” Cohen said.

The two friends decided to start a fun business in a rural college town. Each man contributed $4,000 to the venture. The two foods they believed would sell best amongst college students were ice cream and bagels. Starting a bagel business would cost them $40,000 and suddenly ice cream never looked so good.

Next, they looked for the right location. They thought, “It ought to be a warm town with a sizeable population.” They found the home of the University of Vermont . . . Burlington, Vermont!—“The coldest town in the United States,” Cohen said. All the warm towns already had homemade ice cream parlors.

Financing the parlor presented other difficulties. “We were looking for $26,000 from the banks but we only got $4,000,” Cohen said. It is not surprising then that the site of their ice cream store was a broken down gas station. Their equipment included an ancient rock-salt-and-ice freezer. Their training consisted of a $5 correspondence course from the Pennsylvania State University.

As soon as they opened, Ben and Jerry’s ice cream was successful. “We had to close our doors against the crowds,” Cohen said, “and hang up the international no-ice-cream sign—a cone in a circle with a slash through it.”

They worked by the idea that a business should give to the community which supports it. So, they ran ten free movies and had family fun festivals each year. They developed promotion ideas which entertained the customers. In one instance, they offered a penny off for every degree the temperature dipped below zero degrees Celsius—not unusual for Vermont winters. The promotions served as great advertisements for the store.

“Back then we were spending four percent of $150,000 for advertising. Now it’s four percent of eight million dollars,” Cohen said. “It is a lot more fun spending the four percent now.”

As their business grew, so did their generosity towards the Vermont community. When they decided to sell

The international no-ice-cream sign used on opening day.
Enjoying their own ice cream, Ben Cohen and Jerry Greenfield reflect upon their success.

stock, only Vermont residents were invited to become stockholders. Shares went for $10.50 each, so that “The individual without a lot of money could still buy one or two shares,” Cohen said.

In addition, each year they put 15 percent of their profits into a Ben and Jerry’s Foundation and contributed that money to the Vermont community. The were advised that investors would not be interested in a company that gave so much of its money away, but Cohen says he originally felt that the percentage wasn’t even high enough. “We felt that we could stick to what we believed in and still make a profit.”

This philosophy has in no way thwarted their immense success. In 1979, they began distributing their ice cream to restaurants. A year later they began distribution to supermarkets. “We bought 80,000 pint containers (their smiling faces were printed on the lids) and we figured if worse came to worse we could sell the empty containers on the street,” Cohen joked. There was no need for that though—within months their accounts jumped from 50 to 200.

“All of a sudden I was no longer the ice cream man but a big businessman,” said Cohen. For a time they seriously considered giving up the business. However, they agreed that if they could act as the model of a socially responsible business, they could use their success to benefit others.

Just before expanding into a new factory with 23,000 square feet, they discovered that the Pillsbury company was threatening to prevent distributors who sold Ben and Jerry’s from carrying Häagen Dazs too. Cohen and Greenfield filed a suit against Pillsbury. They put a toll-free number on their containers which people could call to find out “What was the doughboy afraid of?” A recording explained how multi-billion dollar Pillsbury was picking on Ben, Jerry and the company’s other 23 employees. Callers would receive a packet which included a bumper sticker and letters to both the Federal Trade Commission and to Pillsbury.

The case was settled out of court with Häagen Dazs promising not to prevent distributors from carrying Ben and Jerry’s. Cohen and Greenfield promised to stop the campaign which had brought them even greater notoriety and won the hearts of even more ice cream lovers. Last year their revenue reached four million dollars. The company expects to double that figure this year.

In June, Ben and Jerry’s will be sold in Ithaca through an independent store run by young entrepreneurs. The store will be a non-profit venture from its owners and will serve as a training ground for young people. The City of Ithaca contributed $15,000 of its block grant to the project. The company’s personnel will come from a city organization, The Learning Web, which sets up apprenticeships for young people in Tompkins County. “The kids will be able to get special training and hands-on experience while making an income,” Furman said.

Ithaca residents will now be able to experience some of the community spirit Ben and Jerry’s has shared with Vermont residents. For Cohen and Greenfield the formula has been simple. “We’re just two regular down home guys living up in Vermont—the land of cows and pastoral fields and making some of the best ice cream you’ve ever tasted in some very amazing flavors,” Cohen said. Maybe after a year’s success, the new entrepreneurs will follow Ben and Jerry’s anniversary policy—free ice cream cones for patrons all day long!
PRSSA—you may have seen these mysterious letters on signs and letterheads all around the College of Agriculture and Life Sciences and in the mail, but you still might not know what they mean. Well, the Public Relations Student Society of America is determined to get their name known by winning a national public relations contest sponsored by Golin/Harris Communications, Inc. and Levi Strauss & Co.

The Public Relations Student Society of America is a group of over 70 students who are interested in public relations and advertising. The group meets about once a week for guest lectures from such important companies as Ogilvy & Mather and Sullivan, Stauffer, Cromwell & Ballis.

This year, PRSSA decided to try something new. Nine members, as a group, entered a contest which gave them the opportunity to work with Levi Strauss & Co., the world's largest apparel manufacturer, and Golin/Harris Communications, Inc., a national public relations agency. The nine PRSSA committee members were challenged to develop an eight-week campaign to promote Levi's 501 Jeans or Levi's Corduroys. The campaign proposals of all PRSSA chapters in the contest were reviewed by Golin/Harris in October, 1985. Twenty-five proposals were chosen to be carried out in their communities and Cornell's proposal was one of those selected. "I've worn Levi Strauss & Co. jeans all my life," said Donna Tom '86, one of the original nine committee members. "Who would guess I'd ever be doing a national public relations campaign for them."

The nine committee members were given a $600 budget, promotional materials, and a fee for their services to promote Levi's 501 Jeans in Ithaca, from October to December, 1985. "We had mixed emotions when we found out we were awarded the account. We knew we had a good campaign going but our budgets for time, money, and people were limited," explained Jacque Wagner '87, a committee member. Since they found out they had placed in the semi-finals, the members have been working overtime to get their campaign underway. The theme for the campaign was "Discover the Treasure — Levi's 501 Jeans" and it was promoted through various fashion shows, radio and newspaper announcements and a treasure hunt. The members chose this theme because they hoped it would suggest quality and value in the product as well as give the campaign a sense of adventure and mystery.

The campaign began with a bang—a fashion show at Willard Straight Hall on October 24. Two other fashion shows at the Straight were held on November 20 and December 4, 1985 and a fourth fashion show was held at Pyramid Mall in Ithaca on November 2. These events displayed Levi's 501 Jeans in a new, attention-getting style called mannequin modeling. Models wearing the jeans freeze in a mannequin-like pose and when someone looks at them, they wink and start to dance. The committee members thought this would gain attention because it would catch people off guard. The committee members chalked the sidewalks of Cornell with teaser statements like "Discover the treasure at the Straight" and "Watch for the treasure at Willard Straight Hall" to stir up curiosity before the fashion shows.

These events gained a lot of attention for both Levi's 501 Jeans and PRSSA, but Cornell's campaign did not stop there. Another major aspect of the "Discover the Treasure" promotion was the use of Ithaca's media. Ten pairs of Levi's 501 Jeans were given away on WVBR-FM radio during the last week in October and broadcasters at many local radio stations delivered promotional announcements and advertisements for Levi's 501 Jeans.
and PRSSA. Media kits, containing photographs and news articles ranging from a history of Levi Strauss & Co. to coverage of the fashion events, were developed by the committee members and distributed to eight local newspapers.

To culminate the eight-week campaign a treasure hunt was held during the fashion shows on November 20 and December 4, 1985 at Willard Straight Hall. To enter, students filled out a treasure map by following the given clues which emphasized some quality of Levi's 501 Jeans. The completed maps were collected after the fashion show on December 4, and 25 winners were picked from the entries at random. The top 15 won a pair of jeans and the remaining ten won shirts that read "Discover the Treasure — Levi's 501 Jeans."

At the end of the eight weeks, the committee delivered a final report of the success of their campaign to Golin/Harris Communications, Inc. Now they are impatiently waiting while all the final reports are judged and the top eight winners are chosen. The winning chapters will be notified some time in January, 1986 and awarded a total prize package of $5000. In addition, representatives from the first place chapter will be awarded a trip to San Francisco where they will present their campaign at Levi Strauss & Co. headquarters.

This has been an outstanding opportunity for the students to gain business connections with a respected corporation and a national public relations agency. "We've been able to get practical experience in designing and carrying out a public relations campaign," added Tom, who plans to work in public relations after graduating. Wagner pointed out, "The campaign's taken a lot of time away from our course work but we're gaining hands-on experience that our classes can't provide." Based on the results of the campaign, all the time and effort seemed to pay off. The committee members were successful in promoting the name of both Levi's 501 Jeans and PRSSA.

Whether Cornell's campaign places in the top eight winners or not, placing in the semi-finals is still an honor and an accomplishment for a first-time effort. So next time you see the letters "PRSSA", you'll remember, "They're those ambitious students who took on a challenge—and won!"

by Shari Tibbets '87
FROM COCKTAILS TO MOCKTAILS

by Lisa Bornstein '86

Weekends for most college students start on Thursday afternoons at their favorite bar for happy hour. Bar hopping and fraternity party frequenting continue right through Sunday. Many students go to campus pubs on weeknights for a relaxing drink after studying. But on December 1, 1985 a change took place on all college campuses in New York state when the minimum age requirement for the purchase of alcoholic beverages in New York state rose from 19 to 21.

There is no doubt that alcohol is part of many college students' social lives. Pina coladas, strawberry daquiris, kamikazes and beer are just as common to the student as astronomy books, math problem sets, calculators and libraries. College students drink for many reasons, including peer pressure, academic pressure and pure social enjoyment.

With the 21-year-old drinking law in effect, the majority of Cornell's student population is under age. Collegetown bar owners, fraternities and sororities and campus activities organizers are all aware of this and are revising their programming.

At present, it is the University's policy that the organizers of campus activities are allowed to serve alcohol if they meet the legal requirements and make nonalcoholic beverages available. There are certain locations on campus where alcohol can be served legally, including Noyes Center, Robert Purcell Union, Barton Hall and the Ag Quad. Events must be registered with the director of student activities when alcohol is going to be consumed in these locations. The University's revision of existing procedures is still being considered.

How will the drinking law affect fraternity and sorority functions where alcohol is served? According to Michelle Turk '87, vice-president of Sigma Delta Tau sorority, "If the majority of people at the party is under 21, you are not supposed to have alcohol. If the majority is 21 or older and you do have alcohol, obviously you can only serve the people 21 and older." Tracey Stone '86, a member of Sigma Delta Tau, said, "Fraternity and sorority parties will always be an active part of the Cornell student's social life. The parties still offer music, dancing and a place to meet people."

"The drinking law affects everyone in the college community," according to Ned Macksoud, manager of Ruloff's tavern in Collegetown, "Personally, I am affected a little less because Ruloff's attracts an older crowd." Macksoud explained that when food is being served, Ruloff's will be open to the general public. When Ruloff's stops serving food later in the evening, they will be open to a 21 and older crowd. According to Macksoud, "As always, good quality proof of age will be required at the door."

A great majority of residents on West Campus is under the legal drinking age. The Noyes Center Pub, located on West Campus in Noyes Center, is going to change its style to accommodate the new law. According to Chris Monacelli '85, the student personnel coordinator, "The Pub will still have alcoholic nights where liquor will be served to the 21 and older crowd, but we would like to use the space for different activities since we are serving an under age community." Among the different activities planned at Noyes are comedy shows and jazz shows. Non-alcoholic beverages will be served at these events.

The Chapter House, once a bar on Stewart Avenue, reopened in the beginning of the 1985 fall semester. It serves as an alternative for students who are under age. The Chapter House offers dancing, food and mocktails in a bar atmosphere. Mocktails are cocktails that have no liquor.

The Cornell community is adjusting to the new law. Many alternatives to the bar scene are now available and students are finding it possible to have a good time without alcohol.
While I was growing up, family roles and responsibilities were well-defined: men made the money and women did all the rest. This included cooking, cleaning, laundry, and grocery shopping. It never occurred to me that the male of the household would have anything more to do with food shopping than eating most of the food.

Recently, I have noticed that, although common among older households, this is not always the case. Many of my friends say that their parents share shopping responsibilities now that the children are out of the house. Also, more mothers are out in the work force than ever before.

But the “typical” female supermarket shopper is becoming obsolete. What has emerged in a new trend: more men are pushing carts down the aisles of the local Food King than ever before.

Recent studies show that as many as 40 percent of supermarket customers are male, a substantial increase from previous years. According to Edward McLaughlin, assistant professor of food marketing at Cornell, “formerly, the male food shopper was such a rare breed that there are few statistics documenting how men shopped during the 1960’s.”

“With more women in the labor force and so many two-income families, more men are taking on what traditionally have been considered female roles,” McLaughlin said. He explained that these new male shopping habits tend to be more like those of the professional woman, and less like those of the housewife. One recent study shows that 82 percent of husbands do the grocery shopping occasionally.

Although they are catching up to women in terms of doing the actual shopping, men differ in their shopping patterns, such as length of time in the store and how careful they are with their money.

Bob Green, an insurance agent who lives alone, said, “Men spend less money in the supermarket but make more trips.” In his opinion, men are more apt to buy foods that have already been prepared, while women will take the time to cook more. Green also believes that women read labels more often, as they usually shop for their family and may be more health-conscious than a man who buys something in its most convenient state.

Green also estimated that men eat more of their meals out of the house, so their shopping trips require less thought and planning. This may explain why the average shopping trip for men is 20 percent shorter than for women. While a male will usually spend 18 minutes in the store, the female average is about 22.2 minutes. Also, men seem to go shopping when they “run out” of food, but women usually choose a specific day to shop.

Another characteristic of the male shopper is that he is more “brand-fickle.” Larry Robiner, a student in Cornell’s Johnson Graduate School of Management said, “What brand I buy depends upon a lot of variables.” While Robiner has been the designated shopper for his apartmentmates for the past few years, he says he “never” uses a coupon or pays special attention to store sales. He describes the male shopper as “impulsive.”

Food marketers, according to McLaughlin, have only just begun to realize this important trend taking place in the aisles of American supermarkets. “Marketers and retailers have not fully capitalized on the growing phenomenon of so many men doing grocery shopping,” McLaughlin said. He noted that relatively few have directed their campaigns toward this important and only slightly recognized market segment. Some, however, have begun to advertise in men’s magazines or aim their television commercials at male audiences. A few soft drink companies are gearing their diet soda commercials to men, especially the young, upwardly-mobile professionals.

As a result of this new trend in society’s expectations, I am looking forward to my wedding without the apprehension I had while growing up, that marriage was essentially a contract to love, honor, prevent ring around the collar and use store coupons whenever possible. Today’s young couples are realizing that marriage is teamwork, and that their spouse’s career and goals are as important as their own.

Perhaps this significant social observation will herald the beginning of the end of sexual stereotypes and expectations, at least in terms of household chores and responsibilities. But I don’t think men are ready to start having the kids yet. Well, that’s what they told me when I was growing up.

by Hilory A. Fedegreen ‘86
That's Why I'm Here

This issue of the Countryman covers a broad span of time. When this is read, classes will have been in session at least two weeks, but it was written as the rumor of course of pre-registration proved true. It's a Thursday, about midnight, 16 hours before the computer-read forms are due. A group of agriculture students is sitting around the coffee table, staring at the blank fill-in-the-dots of the registrations. Amidst queries of, "Is this a good course?" "Is this an easy course?" "You mean I'd have to spend more than four hours a week on it?" "Is he a good professor?" one hears, "Just why the hell am I here, anyway?"

That had everyone stumped for some time. After talking with a representative sampling of various majors, it turns out that many students actually have good reasons for attending the ag college. Some even had the same reasons.

Matthew T. Brown '88 comes 3,000 miles from southern California to the ag college. "Because it's the best in the nation for landscape architecture." Brown said that at times he wished that the program was part of the College of Architecture, Art and Planning, but in the ag college, "It's only four years, and tuition is cheaper." This helps compensate for the expensive trips home.

Though he spends 40 to 50 hours a week in the studio, Brown still has time for extracurricular activities and his elective courses. As he said it, the best thing about the program is, "It's in the Department of Floriculture and Ornamental Horticulture, which means we learn a lot more about the practical side of things. Currently we are working on a design for the Cornell Recreation Club, which should be in its first stage of construction by spring '86."

Animal science is one of those majors that many think of in connection with the ag college. Michael J. Lormore '87 has definite reasons for studying in that department here. "As long as it was in home state, and only three hours away, I might as well come to the best. Since I wanted to attend vet school in the same state, it made Cornell an even better choice. This way I have the opportunity to spend my fourth undergraduate year taking courses in the Cornell College of Veterinary Medicine." He added, "My grandfather and father graduated from the vet college in '34 and '63, and they turned out all right."

Another New York State resident, Joseph L. Micca '87 also found Cornell a convenient distance from his home. In the less than decade-old Department of Microbiology, Micca noted, "The ag college seems to be concerned about growing and renovating — we're in a transitional period. For instance, microbiology, for being so new relative to other more established majors, shows great organization and the necessary equipment needed."

"You are reminded that it is still growing, as the requirements keep changing all the time, but the number of quality courses and research opportunities gives me a chance to establish solid credentials." Micca and Lormore both said they missed the opportunity to take many elective courses available in other Cornell colleges.

Transferring from Kenyon, a small liberal arts college in Ohio, Kurt T. Soderlund '86 began, "Well, I thought I was going to be in the hotel school, but I ended up in ag." Soderlund said members of his family, especially his step-father, a graduate student in the same department, recommended Cornell for food industry management. "I anticipate pursuing a career in the food industry promotional field, and here I am offered the chance to enjoy the best education in the field." Soderlund said, "The variety of elective courses would be great, if I had time to experience them." In order to meet requirements, ag transfers have less opportunity to take electives.

So, among a few gripes, it appears the ag college stands on a firm footing with its Ivy League brothers. The literature handed out to prospective freshmen seems to match students' reasons for attending various departments in the ag college. Some things are still reliable.

by Henry Kipp '87
'85 Grads Go To Work

Ann B. Noble '85, has been named director of dairy-food publicity for the American Dairy Association and Dairy Council Inc. She will assist in the general communications of the group and provide consumers and the media with information and recipes.

Kathleen M. Rowe '85 is now an account coordinator with the Boston PR firm of Nicolazzo & Associates. At Cornell she was PR officer for PRSSA, and was an award winner with public relations.

Bonnie J. Reuben '85 is assistant PR manager for the Hotel Intercontinental in Houston, TX. In school she served as vice-president of the PRSSA over the 1984-85 academic year.

Awards

Innovator Robert C. Baker '43, a professor of poultry and avian sciences at Cornell, won the 1985 Agricultural Excellence in Science Award from the Northeastern chapter of the National Agri-Marketing Association for developing new foods with poultry, eggs, and fish. Among these are dark-meat chicken burgers, egg pizza crust, and fish spread. Baker, who is the father of the famous Cornell chicken barbecue sauce, was also nominated for the association’s national award. Baker has taught here since 1949.

A junior in agricultural education at Cornell, David Parsons has been named one of only 32 students nationwide to receive a Future Teacher Scholarship from the Metropolitan Life Foundation. The program was developed to attract outstanding students to the teaching profession, to ease an expected shortage of teachers in the 1990s. Parsons, who was selected from over 300 applicants, will receive $2000 during his junior and senior years.

Michael B. Timmons, associate professor in the Department of Agricultural Engineering, received the American Society of Agricultural Engineers paper award.

Timmons’ scientific paper explains a device which controls day length and light intensity, affecting breeder egg production in poultry houses. A Cornell agricultural engineer developed the device which is saving an estimated $21 million annually in improved egg production and feed efficiency through tight control regulation in poultry houses.

The United States Agency for International Development has granted up to $2.4 million to the Cornell Nutritional Surveillance Program. This follows a 1980 agreement that established the program. Working with the concept that malnutrition and starvation can be alleviated by better food distribution and improved public health measures, CNSP provides the critical link between information about these problems, and action to resolve them.

The program is a joint operation of the New York State Colleges of Agriculture and Life Sciences, and Human Ecology, at Cornell.

Appointments

Peter J. Trowbridge has been named coordinator of the Landscape Architecture Program in the NYS College of Agriculture & Life Sciences at Cornell, succeeding Marvin I. Adleman. Trowbridge has taught at Cornell since 1976.

Ray Bryant, a soil scientist at Cornell, began a one-year term as president of the Empire State Chapter of the Soil Conservation Society of America in October 1985. Bryant began teaching at Cornell in 1981.

Both Elmer E. Ewing 'PhD '59 and David A. Young have been renamed to their posts with the NYS College of Agriculture and Life Sciences at Cornell, Ewing as chairman of the Department of Vegetable Crops, and Young as director of the Liberty Hyde Bailey Hortorium. The hortorium is Cornell's research center for identifying, classifying, and naming cultivated plants. It is also devoted to teaching and basic research in taxonomy. Ewing began teaching at Cornell in 1958. He will serve a two-year term until June 30 1987.

Agriculture and Wildlife Management

by Aaron N. Moen, a faculty member in Cornell’s Department of Natural Resources, describes how different types of farms are operated and how wildlife fits into the picture. Other subjects include wildlife damage, wildlife management on the farm and predation.

Awards at Geneva Station

Roger Way, PhD '53 retired professor of pomology at the New York State Agricultural Experiment Station at Geneva, was feted for his lifelong commitment to the field of pomology when he received the Golden Apple Award from the Western New York Apple, and New York Cherry Grower’s Associations, Inc. Way, an acknowledged world leader in his field, has worked on the breeding of apples, cherries, and elderberries, and has named and introduced significant new varieties of these fruits. He has also worked on virus and nursery problems, hardness, and improved culture practices. Way came to the Station in 1949. He served as chairman of the former Department of Pomology and Viticulture from August 1982 until his retirement in May 1983. He was then made professor emeritus in pomology at Cornell.

The Northeast Division of the American Phytopathological Society presented Rosario Provvidenti, professor of plant pathology at the New York State Agricultural Experiment Station in Geneva, with the Award of Merit for more than 30 years of successful research. Provvidenti is known worldwide as a leader in identifying viruses, discovering genes for resistance, and assisting breeders to develop new varieties. His work has led to highly virus-resistant varieties of tomato, pea, bean, lettuce, and cucurbits (squash, melon, pumpkin, and cucumber). These varieties yield high quality virus-free crops economically.
Cornell's Department of Entomology has moved its 4.5 million-specimen insect collection, the second largest university-owned collection in the U.S., from the old Comstock Hall on the ag quad to the new Comstock Hall, formerly Academic II.

Dr. James Liebherr MS '74, assistant professor in the Department of Entomology and curator of the collection, said the move was desperately needed.

"The collection was primarily in the attic of the old Comstock, and we were pretty cramped with only about 4,700 square feet of floor space," Liebherr said. "In the summer, the temperature was in the mid-90s, and the humidity was high. In the winter, the air was fairly cold and dry. We also had chronic roof leaks. Insect pests which could have eaten the preserved specimens were often found entering the open windows. None of these conditions was doing the collection any good."

To remedy the situation, the College decided to move the collection in May, 1985 to the second floor of what was then Academic II, where it has 6,600 square feet of floor space and an artificially-controlled environment to help preserve it.

Liebherr explained that the move consisted of three parts: movement of the specimens, movement of the cabinets they are stored in and installation of the cabinets in their new home.

Although many of the insects are stored in glass slides, the majority of the specimens in the collection are stored in small cardboard trays placed in larger glass-topped drawers, called Cornell drawers. These 2' x 2' Cornell drawers enable people to view the contents of the tray while providing the specimens with a protective seal.

The work was not finished when the cabinets were in the new Comstock though. Thanks to a grant from the National Science Foundation, Cornell University was able to purchase a cabinet "compactor system" to save space. Cabinets are placed on long carriages powered by a chain and pulley device. The carriages move on metal tracks that are placed in the floor at right angles to the carriages. By turning a handle on the end of a carriage, the cabinets move along the tracks, creating a new aisle and access where once there was none.

"The Cornell collection is primarily for research, so we do not have a lot of people going in and out of the cabinets," said Liebherr. "This means we can save a lot of space with the compactor."

Liebherr said the move, which he estimated as costing "in the many thousands of dollars," was definitely worth it. "The new system serves to increase the collection's visibility, and the more we are used by college staff and faculty and specialists at other institutions, the more we are appreciated."

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New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University,
ABOUT THE ISSUE
How do you make the old and boring bright and new again? In this issue we explore the concept of renewal in articles about recycling garbage and roads. We take a fresh look at an old speech contest, Cornell’s grounds, a figure from history and the farm crisis. We notice classrooms renewed by innovative teaching and learning, and we close by presenting Cornell’s renewal of its phone system. We see renewal as a process accomplished by people with an idea who worked until their visions came true.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott.
Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays ’12.
Faculty advisors: Linda Myers ’64, Jane E. Hardy ’53.
It is the year 2000 and all across the land, rows of greenhouses filled with roses and chrysanthemums have replaced huge concrete sewage plants to purify wastewater. Sound implausible? Not according to agricultural engineer William Jewell and his Cornell University research team. With a purifying process he terms “the nutrient film technique,” Jewell said he hopes the breakthrough system can begin to be adopted within the next two or three years. "As a new concept, it has to deal with the traditional barriers to innovation, like the lower risk of the system currently in use," he said. "First of all, it has to be demonstrated to be cost effective."

Jewell will take a big step towards that goal this spring with a pilot project at an Ithaca sewage treatment plant. The experiment, the only one of its kind in the United States, is slated to handle 10,000 gallons of wastewater per day for two years.

How can ornamental flowers such as roses and chrysanthemums—not usually associated with sewage—perform this task? "The wastewater is applied in a thin film of liquid through the roots of plants grown on an impermeable surface," Jewell said. "Plants can be cattails, grasses or ornamentals. The large root zone takes up the dissolved materials and purifies it almost to the point of becoming drinking water."

Jewell began his research in 1978 with a research grant of $400,000. "We had several pauses, but some new agencies became interested, and we're starting up again."

Other projects with similar objectives have met with less than full success, but Jewell notes the nutrient film technique holds a distinct advantage over such competitors. "Their techniques require larger surface areas," he said. "Also, they use trash plants like water hyacinths. Any terrestrial plant will grow in our system."

The Cornell research group lists carnations, tomatoes, cucumbers and wheat as some of the plants that are able to grow in the wastewater. This has significant implications for the feasibility of the project. "With the sale of the plant products, it may be possible to design a break-even system. Our estimate indicates that the system can be very attractive economically. It will depend on whether the product can be marketed."

Jewell also pointed out potential applications to the basic process. One is to recover pure water from salt contaminated areas. Another is the purification, at a lower cost, of ground water that has been poisoned by pesticides and various toxins.

With all the promise of the system, Jewell describes a frustration in implementing it. "A new breakthrough in technology can take decades before it is accepted. That's very disconcerting to the researcher."

But according to Jewell, there is also a satisfaction that can only come from working on this type of project. "Researchers are always looking for systems that minimize efficiency with attractive economics. I think this system has the characteristics."
Their dull gray bodies squat mysteriously on the roof of Morrison Hall. Their bullet-shaped noses point toward the sky as if watching for some attack from the air.

In reality, the danger is from the air, but it is the air inside the building which may be more hazardous than outside air. For what look like missiles on Morrison's roof are part of a new ventilation system that carries lab fumes away from the building. According to Statutory Facilities Coordinator Herb Pallesen, the 'missiles' are the actual exhaust fans, and the blue cubes Renaissance up there are part of the system, too.

From the Kite Hill parking lot, the tops of many Cornell buildings seem to be decorated with shapes and colors that are so unexpected they would make Sherlock Holmes take a long draw on his pipe. What are those strange things and what do they do?

For many of the structures, the mystery is explained as Pallesen explained the shape of Morrison's fans. "That's the way the fans are designed. They put the fumes ten feet above the roof to disperse them well." And the new parking garage should be up next fall, and traffic will be rerouted away from the engineering quad area. The traffic booths will all be replaced with another kind of booth and re-set into new positions. The booth outside Barton Hall is going, too.

Cost was not a factor in the decision not to replace the booth. "Since the Cornell Transportation Services owns both the booth and the bus company, it comes out of one pocket and goes into the other," Ullberg said. "Anyway, it was not very expensive, just timber and glass."

Bradfield Hall, a five-minute walk down Tower Road from Morrison, is another example. Its roof is home to, along with a satellite dish, something which looks like an upside-down Tupperware container. Mike Rickert '87 has noticed that Bradfield's roof is inhabited. "I know there is a water tank up there and some weather instruments," he said.

Ullberg explained that the white cylindrical dome is a radar antenna for meteorological data collection. It was put up by a helicopter. "There was a big issue as to what color it should be, and whether it would be an eyesore," Ullberg said. "I think it is kind of interesting, like a big Tinker Toy."

Across the street from the ag quad and Bradfield a path runs toward Lynah ice skating rink. From that path, another oddity is visible. Behind Academic II, (now Comstock Hall) brick rectangles with slanted concrete tops stand like pieces of a child's building set. They are air intakes for the ventilation system. Usually, such intakes are placed at ground level.

"When Academic II was built, we were anticipating parking behind the building, so rather than put them at the ground level, they elevated them so as
not to suck in exhaust fumes,” Ullberg said.

Of course, a biotechnology building will go where a parking lot was expected. This kind of change is common. How to arrange for maintenance is a concern for building planners. “Where is the back, the front?” Ullberg asked. “On a college campus, that’s a tough question. For example, look at the arts quad; first buildings faced the valley, now the quad.”

One building does not face anything but the backs and sides of other buildings. Tucked next to the Large Animal Research and Teaching Unit is a tall structure which makes odd noises. It looks like an upside-down trapezoid. It is rumored to eat horses, or at least scare the.

On the maps, they call it a chilled water plant. By a bit of magical engineering, it provides cool water which is piped to cooling systems in several buildings, such as those for computer rooms, which must be air conditioned.

On a cold day, mysterious vapors rise from the many manhole covers all over campus. At some universities, there are utility tunnels under those covers which, with or without permission, people enter. The manholes provide access to valves, but there are no jets of steam, just seepage which can be seen on a cold day.

Underneath Cornell, there are insulated pipes, and when something goes wrong repair crews have to dig down to the problem. The lack of tunnels also causes problems for landscapers. “It is difficult to accommodate trees and utility lines,” Ullberg said. “For example, you cannot put a tree where you would later want to dig down to the steam line.” Spray-painted lines on sidewalks let maintenance crews know where the lines are.

The mysteriously steaming manholes provoke more notice than other odd architectural features of the campus. “They keep a patch of ground dry; there is no ice around them and that is nice,” Pilar Galvis ‘86 said. “And you can always tell where the steam lines are because no snow is over the grass there.”

Most northern city-dwellers may find steaming manholes normal, but not all Cornellians are urbanites, or northerners. “I’m not used to it because I’m not from a city,” Bridget Sikkes ‘87 said. “It makes me feel like I’m in a city.”

Although some structures on buildings seem odd, their placement is not haphazard. Ullberg said that how a building will look is carefully considered, with the needs of Cornell, and the artistic desires of the architect balanced. Ullberg’s office tries to get architects to work within the larger context of Cornell’s buildings.

However, how much an average student appreciates this is questionable.

Galvis admitted that she does not routinely analyze the buildings. “I never really notice roofs. They’re there, that’s about it,” she said.

Perhaps people are too busy to notice their surroundings. Perhaps seeing the same oddity every day makes the object less odd. “Some people just walk,” Rickert pointed out. “They have other things on their minds. They don’t really look around.”

Even those who look around rarely look up. Therefore, few have noticed the missile-looking exhaust fans on Morrison. “I noticed they were building on Morrison,” Galvis said. “I cannot see it but I know it has a lot to do with ducts and tubing and things like that.”

What people might think was not really a consideration when putting the ‘missiles’ on Morrison, Pallesen said. The aesthetics were played down in favor of function. “The people wanted good fume-hood exhaust in the building and now they have it. It makes the building environment safer,” Pallesen said.

Mysteries dissolve into mundane maintenance structures when scrutinized under the magnifying glass. Tupperware becomes an antenna, the chilled water plant does not really eat horses, and no magician caused the traffic booth to disappear.

And if Morrison’s exhaust fans fail to protect against incoming Russians, they do provide a safer place to work and learn.
Sure, pre-veterinary students spend long hours in the library poring over animal reproduction and livestock nutrition textbooks. Of course, they work their hardest for the stellar grades they need to be accepted into veterinary school. But these students are also fun-loving people who enjoy social activities with others who share their interests. Where do they find the experience, practical information and social life that they won't get in their classes? The Cornell Pre-Veterinary Society.

"The Pre-Vet Society was started several years ago to get pre-vet students to be friends," said Kathy Seymour, '87, president of the Cornell Pre-Veterinary Society. Because the pre-vet program in the College of Agriculture and Life Sciences is so competitive, many pre-vets see their fellow students as enemies, she added. The society of approximately 60 members enables the students to get to know each other, and decreases any animosity they feel toward each other, she said.

The society sponsors social activities such as square dances and trips to a local dance club, in addition to offering valuable information on tactics that will help pre-vets get into veterinary school. Members discuss how to handle the 'dreaded interview' and participate in activities that will provide valuable experience as well as looking good on an application. For instance, many members are urged to volunteer at the local SPCA.

Society members also learn more about veterinary science through lectures given by faculty members of the College of Veterinary Medicine at Cornell. Talks may focus on animal diseases, a sheep autopsy or a debate on using animals in research.

Last semester, the society sponsored a lecture on alternative careers to veterinary medicine; a practical topic, since not every senior in the society gets an interview at veterinary schools, according to Seymour.

To obtain funds for field trips and other expenses, the society relies mainly on their annual 'dog' wash. "It is our biggest fund-raiser," Seymour said. Although members do wash dogs, the name of this event isn't quite accurate. In addition to canines, society members wash cats, ferrets, goats, sheep and numerous other types of animals. Although they raised over $500 at the dog wash last year, the society has other sources of income. This year, they are selling sweatshirts and may hold a raffle to raise additional money, according to Seymour.

Seymour also said she would like the society to become more involved with the community instead of being solely campus-oriented. Members can volunteer at the SPCA, and the society is currently planning to bring a pet care program to local schools.

Other members seem positive about the club and its benefits. "I get experience here I couldn't get from class," said Karen Huff, '87 vice-president of the society. Being in the club shows leadership and involvement qualities which can't hurt her possibilities of getting accepted into veterinary school, she added. "The past three or four presidents and vice-presidents have gotten into Cornell vet school," she said.

Linda Hunter, '88, said she joined the club to be around other pre-vets and to keep aware of special events that happen at the vet school." She added that being around other pre-vets in a non-competitive atmosphere relieves a lot of tension between them. "if you're around other pre-vets, you can't hate them; you can't hope to do better than they do — you become friends."
FROM
PRE-VET

Is it possible to complete three years of undergraduate studies with exceptional grades, gain some practical experience in the veterinary field and be accepted to Cornell University's College of Veterinary Medicine as a first year student? Few outstanding students have accomplished such an achievement in one of the top three veterinary schools in the country.

One of the third year students in the veterinary college right now is Todd Tobias '84. As an undergraduate, he majored in biology. After his junior year he was accepted into the college. Todd's father, Gerald Tobias, DVM '62, also finished his undergraduate studies at Cornell and was accepted into the veterinary college. In six years he received his DVM.

In the approximately 25 years since Dr. Tobias has attended Cornell, there has been much progress in the veterinary college. "About 20 years ago, there were maybe two or three clinicians in the small animal clinic. Now we have almost 30," said Dr. Fred Scott, DVM '62, PhD '68, Director of the Cornell Feline Health Center, professor of virology and a classmate of Dr. Tobias. New buildings have been erected since the old days when the college used to be located where the School of Industrial and Labor Relations is today. Some additions to the Cornell campus in the past 25 years include, "...the Feline Health Center, the Equine Research Park; and in the curriculum, more of an emphasis on small animal studies," said Scott. According to Dr. Scott there is talk about expanding the college in the near future. In four stages, they plan to build additions to the Research Tower and the library and additional clinics adjacent to the present clinic.

"Todd will be more prepared than I was when I graduated from the college, especially in small animal studies. Certain advantages that Todd has with the modernization of veterinary medicine are things like electrocardiography, which was in its infancy when I was at Cornell. Two new techniques which Todd has been exposed to are endoscopy, where they pass flexible tubes into the stomach, and ultrasonography, which creates an image on the screen via sound waves."

The chairman of the Department of Anatomy and a distinguished professor for years at the veterinary college, Howard E. Evans, BS '44, PhD '50, said that "a change in the veterinary college is the tremendous increase in the number of women over the past years. Fifteen years ago, women were discriminated against because of the nature of the job. It was a myth." There were only two women in Dr. Tobias and Dr. Scott's class. Today, over 50 percent of the class is female. Dr. Evans seems to think, "It adds a new dimension to the veterinary college with more women here."

The number of applicants has decreased in the past decade or so. "Ten years ago we took 80 students from a pool of about 1,000 applicants. Today, we take 80 out of 500," according to Scott. That is a big drop.

"The professors in the veterinary college have to read up and be aware of the constant additions, changes and breakthroughs in veterinary medicine. "There is so much information that we get every single day. You would not believe it," said Todd. Dr. Evans and Dr. Scott both agree that the rigorous nine-to-five lectures and labs every day, with rounds and surgery and little time for lunch, puts tremendous pressure on the students. It seems that the human brain is an amazing tool that can store an almost endless amount of information. It also seems that Cornell veterinary students take that to the limit.

"I am really proud of my father. A few years ago he took a very prestigious exam, given by the American Board of Veterinary Practitioners (ABVP) for which he had to write a detailed case study and for which he studied one-and-a-half years in addition to working full time. Having passed the exam, my father became a diplomate of the ABVP and it showed that he was very up-to-date in the veterinary field. He is a veterinarian with an excellent reputation. I love to watch him work and I have learned so much from him," said Todd.

Todd seems to be following in his father's footsteps. "I'm really proud of Todd. He is doing very well. After he graduates, he may choose to specialize, or he may work with me. We'll have to wait and see," said Dr. Tobias.

What else do these animal lovers have in common? Well, they both like to play the trumpet. About 25 years ago, Dr. Tobias played the trumpet in the Big Red Band. He taught Todd how to play, then Todd played his father's instrument in the band some two decades later. Dr. Tobias said, "Sometimes I come up for alumni weekend and both Todd and I play in the band. It's really quite amazing."

The Tobiiases have begun a wonderful tradition at the veterinary college and, who knows, it could continue...for generations.

TO
PRO VET

by Leora Brayer '86
PART ONE OF A TWO-PART ARTICLE

The Farm Crisis:

Depending on what you believe the goals of U.S. agriculture should be, you can point to various economic and political influences, many since the 1970s, that have prevented farmers from achieving those goals. To discuss solutions, you have to reach a consensus on what the problems are.

Some people blame the policies of Presidents Nixon and Carter for at least two reasons. Nixon's secretary of agriculture, Earl L. Butz, told farmers to plant from "fence row to fence row," that the Soviet Union will always buy U.S. grain and other commodities to fill shortages in their crop production.

But in 1980, President Carter placed an embargo on U.S. grain sales to the Soviets to protest their invasion of Afghanistan. Although President Reagan lifted the embargo in April, 1981, the Soviets now rely on other countries as their principal suppliers of grain and other commodities, and the U.S. crop surplus has grown.

Prof. Eddy L. LaDue, agricultural economics, points to the surplus as underlying the farm crisis: "The real cause of the farmer's problem is a surplus of everything, which has led to low prices . . . and the low prices have caused real cash flow problems."

Prof. Eugene C. Erickson, chairman of the Department of Rural Sociology, also points to the surplus: "If there's one cause of the farm problem today, it's probably the productivity of agriculture—not only in the United States—but around the world."

Departing from blaming recent government policy, Erickson cites U.S. policy since the 1930s as a cause of the surplus.

"Some analysts go back 50 years and say that one of the . . . implicit policy decisions that we've made in this country is to keep the price of food low. And therefore to do that, we have to produce more of it . . . to make . . . [food] . . . readily available," Erickson said.

Some people blame the inflation of the 1970s for being a primary contributor to the farm crisis. Because inflation rose faster than interest rates, farmers used the increased value of their land as collateral to borrow heavily to plant from "fence row to fence row."

But since 1980, the value of farmland has decreased sharply nationwide, with land values falling 40 percent to 50 percent in some midwestern states.

Prof. George L. Casler '50, MS '59, agricultural economics, says the huge debts accumulated by farmers in the 1970s and early 1980s are the main obstacle to running a profitable farm in 1986: "Probably the people that are in the best shape [today] are those that don't have a great many debts."

Prof. Frederick H. Buttel, rural sociology, points to the debt problem as well. "The real problem in the farm crisis is basically a debt problem—a high debt which now is compounded by the real rate of interest being so high."

A third source of blame are economic stresses not exclusive to agriculture—a world recession, and the strength of the U.S. dollar, which have made foreign crops less expensive in international trade than U.S. crops are.

Prof. Eugene Erickson: Says productivity is the problem.

Prof. Andrew M. Novakovic, agricultural economics, blames tight monetary policy that has spanned several administrations and loose fiscal policy under President Reagan for today's high interest rates and overvalued dollar.

According to Novakovic, "Many farmers were squeezed because of this, and Congress sought to alleviate their problems with price and income supports. Unfortunately, the effect was to encourage prices to be higher than you could justify given other market conditions."

Solutions to the farmer's woes are more difficult to pinpoint than the causes because Congress, farmers, and the administration have not reached a consensus on their goals. One goal is to establish an equilibrium between U.S. farm crop production, and national and world demand for U.S. crops. According to this argument, "We can't just generate surplus after surplus," Novakovic said.

Two other goals of farm policy are to create a stable farm population and to preserve farming as a way of life,
Causes and Cures

by Howard Rosenberg '87

LaDue sees an equilibrium farm population emerging if some farmers shift to the nonagriculture sector: "The long-run solution is to reduce the surplus by lowering the \( \text{crop} \) prices sufficiently so that enough farmers leave farming . . . so that we do not have an oversupply [of crops]."

LaDue says farmers "... need some people-oriented programs to handle the squeeze . . . ."

Erickson says, the long-run solution to the farm crisis is to create a new rural development policy.

"The fact that they [farmers] go out of business affects not only a family . . . . [in] . . . farming . . . . It affects the communities because it means that kids are pulled out of school . . . taxes get reduced . . . there's pressure on employment, probably on the welfare system, pressure on the emotions of everybody around them because they're seeing people going under . . . ."

"If we really had a rural development policy, then we could begin talking about food production, but we could [also] be talking about occupational choices . . . . about the stimulation of industry and other forms of employment in the rural areas, about permitting people to become part-time in agriculture," Erickson said.

Congress' concern with the farmer's "human problem" of easing into new diets, a "way of life was reflected in national legislation aimed at the farm crisis - Food Security Act or "farm bill."

In proposing its version of the new farm administration was dramatically cut "target price," the price the government pays for a farm crop's market price fall "loan rate" - Congress' Development

The administration wants to eliminate government involvement in agriculture and move toward a free-market economy.

As Casler points out, when the administration first proposed cutting target prices and loan rates, "There were some people who thought there was a chance of that actually occurring. But as time went on it became clear that there were more farmers in financial difficulty . . . more banks in financial difficulty . . . the Farm Credit System was in financial difficulty, that it became less and less likely that kind of drastic change was going to be made."

According to Novakovic, Congress could not go along with the administration's proposed bill because of the human problem: "The reason why that [free]- market-oriented thing was proposed is because we've got surpluses throughout agriculture. And the feeling [in the administration] was all these subsidy programs would just get us into more and more trouble, [that] we need to get out and let these markets get back to the way they were."

"Well, that's all well and good from an economic sense. But from a more human perspective, that's maybe the worst time to abandon farm programs, because you get a whole bunch of people out there who are generating this surplus—that under a pure price-cut approach are suddenly out of business," Novakovic says.

The 1985 Farm Bill freezes target prices for two years, and reduces target prices by two percent in fiscal year 1988.

Casler says Congress would have significantly lowered or eliminated target prices as well had farmers' debts not been so great: "If there weren't a lot of financial stress in agriculture, they would have dropped both."

Novakovic sees the short-run preservation of high target prices as maintaining the level of the government's subsidy or "deficiency payment" subsidy to farmers, for at least the first three years of the five years in which the bill is in effect. "With target prices left fairly high, at least initially, there's going to be big payments from taxpayers to farmers."

Casler views Congress' fixing of the fiscal 1990 target price at 10 percent below the current level as "a recognition that maybe in three or four years things will turn around a little bit, and their families and the farmer is said Tajue.

Tajue and Travis both hope that this pilot project will show that 4-H and EFNEP do work together.

"If so, we can use our standard curriculum, "Target What You Eat," to teach other counties how to start this kind of project," said Travis.

If the project continues to be successful, adults and kids from all over New York could know more about teaching and learning together, and that a good source of Vitamin A that's brown on the outside and orange on the inside is a S. w. e. e. t P. o. t. a. t. o.
Among the myriad publications produced by the College of Agriculture and Life Sciences is the CALS Of Course Book. Tucked away among the pages of this course evaluation guide could be this description: International Agriculture 602: “Agriculture in the Developing Nations.” Objective: to overcome disciplinary lines; to learn by doing. Prerequisites: interest in international development; an open mind; the ability to dismantle faculty-student barriers; adaptability to unfamiliar settings. Required materials: bathing suit; passport; supply of chloroquin phosphate (to guard against malaria); Swiss Army knife; insect repellant; Spanish-English dictionary. Student Comments: It was the best time I had in my life.

Does the course description really say that? No. But it realistically could according to the descriptions given by the faculty and students involved in this field study course.

“Agriculture in the Developing Nations” is designed to provide students with an opportunity to observe agricultural development firsthand in a tropical environment. During a two-week field trip to Costa Rica, upper-classmen and graduate students study the many problems faced by small farmers—by visiting farmers to see the crops and livestock they raise and the lives they lead, by viewing government projects designed to help farmers and by listening to the scientists who develop the technologies to meet the farmers’ needs.

“The students really do a wide variety of things, from talking to small farmers, to being entertained by people who are high up in the decision-making process, such as representatives of IICA [The Inter-American Institute for Cooperation in Agriculture], to visiting CATIE—the center for tropical agriculture research,” said Katy Van Dusen, the teaching assistant for the course.

Field trip activities include a tour of the coastal canal by boat, observation of sugar-processing, banana-packing and crop experiments, a few hours of coffee-picking, and a trek up the Poas volcano.

The course is sponsored by the International Agriculture Program, but students pay for their own food, lodging, transportation and personal expenses. Since 1968, more than 500 students have participated in the course. Scholarships of up to $500 are available.

“Many students say it’s one of the most useful courses that they’ve taken in the University,” said Prof. Ronnie Coffman PhD ’71, coordinator of the program for the past three years. “The course exposes students to a new area that they haven’t had an opportunity to see. They read about development, they do research in tropical agriculture; but here they can actually see and experience it.”

Course participant Carolyn Callag ’86 agrees: “Because so much of our education takes place in the classroom, it adds so much to actually see the people involved in rural development.”

Students prepare for “Agriculture in the Developing Nations” through its fall semester prerequisite, “Agriculture in Tropical America.” The coordinator of the preparatory course, Prof. H. David Thurston of the Department of Plant Pathology, said that, “Essentially in the course students study agricultural development in Costa Rica and tropical America. We try to answer 90 percent of their questions before they go on the trip.”

Both courses use a multidisciplinary approach, drawing upon academicians from a wide variety of areas including agricultural economics, plant breeding, rural sociology, animal science, government, natural resources, agronomy, education, plant pathology and vegetable crops. Of the 14 faculty and staff members who participated in “Agriculture in Tropical America,” seven professors and one teaching assistant joined the class in Costa Rica.

While Costa Rica has served as host country to Cornellians since 1963, the course’s 18-year history includes such destinations as Puerto Rico, the Dominican Republic and Mexico. Although the course strives to examine agricultural issues in developing countries, Prof. David Lee of the Department of Agricultural Economics pointed out that “it’s important for the students to realize that Costa Rica is not a typical low-income developing country. By Central American standards, it is an unusually educated country, and is unusually politically stable.”

By the same token, potential culture shock is taken into consideration. “For people who aren’t experienced with

**Tenney & Co.:** From left to right: Martha Peterson, Tenney, and native siblings.
countries that have fewer resources, I think that it would be a shock for them to go to a country like Bangladesh, or most of the African countries,” noted rural sociology Professor Shelley Feldman.

The benefits of going to Costa Rica are numerous. Van Dusen mentioned several advantages. “There’s a lot of ecological diversity, so you see many different kinds of production within a relatively small region. Also, it’s fairly close, and has a good road and park system.”

Another advantage is the network of Cornell alumnae who are working in agricultural development—many in top positions—in Costa Rica. “The former head of IIICA was a Cornell graduate. CATIE is headed by a Cornell graduate. And the ex-minister of agriculture and his brothers, who have large farms in Costa Rica, are Cornell graduates,” said Van Dusen.

While the field trip is the highlight of the course, the multidisciplinary educational structure of the course is strong as well.

Animal ‘science Prof. Douglas Hogue PhD ’57, who proudly refers to himself as ‘the only cowboy and sheepherder in the group” said that “Students in the course are not forced to understand a restrictive area of study. You can always take a narrowly-focused course or read a narrow journal in the library.”

Prof. Tom Scott of the Department of Agronomy noted that the variety of lecturers and topics “requires a highly mature student, one who is highly motivated. You get back what you put into it.”

Some professors noted that the diversity of lecturers enabled students to see that there are different ways to approach the same problem, and different biases that each individual brings to his or her analysis. Many students view the diverse methods of teaching as a welcome break from the rigid departmentalization characteristic of the University.

Course participant Seifu Gebremariam, a doctoral candidate in the Department of Vegetable Crops, stated that, “When I came here from Ethiopia, I only wanted to work in the area of potatoes. But I was advised by the Director of International Agriculture here to also try to acquire general knowledge. He challenged me to take other courses. Now I appreciate his advice.”

The heterogeneity of the course extends to the student makeup as well. This year, the enrollment of students from Mexico, Cameroon, the Netherlands, Argentina, Ethiopia, the Philippines, Colombia, Sweden, South Africa, the UK and the United States provided many opportunities for stimulating discussions and exchanges of ideas.

But knowledge is not the only element shared between faculty and students. Essential to the success of the field trip are the social relationships formed among the members of the group. “It was really great to be with professors on such an informal level,” said Sam Angell ’87. “It was so different—being able to talk about the professors’ experiences at rock ‘n’ roll concerts and calling professors not only by their first names but even by nicknames given to them on the trip.”

Students also established positive relationships with Costa Rican families through an optional one-, two-, or three-night stay with 4-S Club hosts at Turrialbta. (4-S is the equivalent of 4-H in the U.S.) “The family that I stayed with was so accepting and warm,” said Call. “They even came to see me in San Jose before I left. Within a week of when I came home, I received six pieces of mail from them.”

The trip was not without its “casualties.” In a handout entitled, “Problemitas en 1986 en el curso IA 602,” Thurston outlined some of the more peculiar moments:

Two students couldn’t sleep one night because of scratching noises and a bad odor in their cabin. The management said it probably was a dead iguana and that the iguanas (three feet long) live in the ceiling of the cabin.

One student did the fire-ant dance. (Consists of jumping, slapping, partially removing clothes in front of bystanders, etc., when one stands too long near a fire-ant mound.)

Why is a course like this important? “I think that we tend to get caught up in our day-to-day border-limiting concept of agriculture and fail to recognize how interdependent our entire society is,” said agricultural education Prof. Richard Tenney. “Whether it’s the food you eat or the clothes you buy or anything else, one part of the globe is affecting the other today.”

“Agriculture in the Developing Nations” is a hard act to follow. When a student says, “When I left I felt like I didn’t want to come back to Ithaca,” you know that something special is going on.

Fruits of their labor: Red coffee beans picked by a campesino.
Once upon a time

Cornell students and faculty had phones they had to dial for themselves. Life was just chock full of little annoyances: busy signals, the limitation of speaking to only one party at a time, and, everyone's pet peeve, the inability of personal computer owners to access Cornell's computer facilities from a dormitory.

Those days of inconvenience are gone, thanks to the recent installation of Cornell's new AT&T "System 85." Features included on dormitory phones include touchtone dialing, call waiting, and automatic call back, which automatically redials the last number dialed. Telephones in university offices will also feature call transfer, three-way conference service, and speed dialing.

Gone forever are missed incoming calls. "System 85" uses distinctive ringing on calls coming in to indicate where they originate: one chirp for calls coming from another phone on campus, a double chirp if the call is coming from an outside source. It takes some of the fun out of guessing who's calling, but now at least the call comes in.

One major advantage of the new phone system is that it provides a far greater range of data communication abilities. Students with personal computers can access Cornell mainframe computer facilities from the comfort of their own arms. One resident hall secretary said, "This new system is really great for the kids, especially the kids with computers. I'd say more than half of the students in this building have computers in their rooms."

The $1.75 million changeover from the 14-year-old Centrex system was completed on March 3, 1986, after more than 16 months of preparations by workers: digging trenches, replacing cables, and training employees. The work was supervised by Patricia A. Paul, director of telecommunications, and Harold D. Craft Jr. '60, associate vice president for facilities and business operations.

Cornell expects to realize savings after several years of operating "System 85" because rather than rent from the phone company, the University now owns almost all the equipment. Students are billed by the Office of the Bursar for long-distance service. Incredibly, rent will not increase as a result of the changeover.

Other universities across the country are also installing similar phone systems — schools such as Yale University, the University of Iowa, and the University of California at Berkeley. In an early February interview, Paul told the Cornell Daily Sun he guessed the new system would be replaced within ten years. What additional telecommunication wonders will be available at that time? The children of today's Cornell students could find themselves high above Cayuga's waters wondering how people ever survived dialing a telephone for themselves. "What exactly was a telephone anyway?"

by Suzanne Rowan '86
Would you consider a procedure first tried in 1930 to be new? Revolutionary? Risky? Those are the responses Lynne H. Irwin, professor of agricultural engineering in the College of Agriculture and Life Sciences, often gets when he introduces the concept of road recycling, an area in which he has worked for more than 15 years.

Road deterioration is a severe problem in many states. Truck traffic on farm-to-market roads is one of the principal concerns of county highway departments throughout such an agricultural state as New York. When pavement becomes chronically cracked, and pitted with potholes, it is referred to as “distressed.” The main cause of distress is the repeated deflection, or bending, a road undergoes when heavy loads pass over it. Obviously, a distressed road must be repaired before the cracks become axle-wrecking chasms.

The traditional repair has usually been patching in slightly distressed areas, replacement in the worst. In the latter case, the entire pavement, surface and base, is torn up and carted away. New materials are laid to replace the base and surface. These materials may be only slightly better than what was discarded, according to Irwin. This process is effective—you get to drive on a brand-new road—but is also expensive and time consuming. According to Irwin, rebuilding a two-lane road can cost about $500,000 per mile. The alternative, patching, is a temporary measure at best.

“Dumping the material taken from a distressed road is like saying its worthless, and that’s ridiculous,” said Irwin. The recycling process Irwin has been perfecting since before he came to Cornell is less than half the cost of rebuilding. “Current on-site recycling runs about $140,000 per mile,” he said.

The “cold-mix” method of recycling is really quite simple. The distressed pavement is ripped up, ground to the required coarseness, and piled on the shoulder of the road. The base course is then loosened, mixed with a binding agent such as cement or asphalt, and recompacted. If there was only a thin surface, it is blended into the recycled base. Otherwise, the old pavement material is combined with a binder, and returned to the right-of-way. Finally, the recycled pavement is rolled flat, and usually sealed with asphalt, or oil and stone. That is all there is to the cold-mix method. It requires no new material except the binder.

According to Tom O’Rourke, professor of civil engineering at Cornell, “Recycled pavement is good stuff. Aging and wear are functions of the deflection of the pavement. Recycled pavement deflects much less, and distributes load more evenly.”

Irwin’s studies bear this out. The testbed for his work is right here on campus: a few hundred feet of Caldwell Road next to parking lot B near the vet college. His data dramatically shows that, under the same load, recycled pavement deflects less than a quarter as much as pavement composed of all virgin materials.

Beyond this, there is extensive actual application of the method throughout the Southern Tier and across the nation. “Among Steuben, Chemung, Tioga, and Broome counties, there is more than 150 miles of recycled road, with the first two counties sporting most of the mileage,” Irwin said.

The November 1985 issue of Civil Engineering magazine illustrated the widespread use of road recycling beyond Irwin’s efforts in the Empire State. Workers in Texas were able to refurbish four miles of road in 20 working days. That represents twice the average amount of work in one-third the usual time.

CE further reported that Wisconsin uses a “hot-mix” method on over half the state’s rehabilitation jobs. The only difference from the cold-mix method is that the old pavement is removed to a plant to be crushed and heated with the binding agent, then returned and laid down. The heating makes for better cohesion in the pavement material.

“The first road to have a cement-stabilized recycled base was in South Carolina about 1930,” said Irwin. Far far down the road, when recycled pavement eventually does become distressed, it can again be recycled. “You can even tear up an abandoned road, prepare the material, and lay it down on a new base course somewhere else,” said Irwin. The cost of the entire operation is little more than labor.

As Irwin sees it, the applications are endless, especially on the severely distressed roads in and around Ithaca. But most of all, the savings and conservation of materials are substantial, the technology is available throughout the country, and the resulting road is better than new.
Let us take a journey 100 years back in time to the commencement exercises of the class of 1886. J.T. Sacket, representing the 87-member class, is concluding the Memorial address . . .

"Although not great in value nor beautiful to the eye, it contains the germ of possibilities which, we doubt not, when in after years the sons of Cornell shall take proud rank among the great orators of the nation, will be eloquent testimony of this day's proceedings, will attest the loyalty of '86 to the interests of the University, its professors and officers, and will demonstrate to the world the wisdom of him to whose care it is now gratefully committed."

SPEECH CONTEST CELEBRATES CENTENNIAL

by Tambi Lee Saffran '86

Each year thereafter, on a Friday evening during the spring term, members of the Department of Elocution competed for the '86 Memorial Prize in junior oratory. The contest always drew large crowds; people waited outside the Armory (Gymnasium Hall) for admittance, and filled every seat in the spacious auditorium.

On Friday, May 6, 1887, the first Junior Prize in oratory went to Andrew Strong White '88 for his rendition of Shiel's "Irish Aliens and English Victories." Writers for the The Cornell Era found grounds for complaint in regard to the contest. While they believed that Mr. White delivered a fine speech, they were somewhat bothered by the fact that the judging professors congratulated ex-President Andrew Dickson White, a relative of A.S. White, in full view of the audience before the winner was announced. "It is to be hoped that next year there will be no possible grounds for complaint in regard to the matter," they wrote.

There were no objections the following year when the prize was awarded to Howard Ames Oppenheim '89 for his delivery of "Toussaint L' Ouverture," by Wendell Phillips. The contest received full attention when it was reviewed on the front page of the three-cent Cornell Daily Sun.

This annual oratorical exhibition had no doubt become a major event at the University. Brainard G. Smith, an associate professor of rhetoric and oratory, was training some of the best speakers Cornell ever saw. In 1889, writers for The Cornell Era praised Prof. Smith, "In two years he had made the Department of Elocution and Oratory at this University what it should be."

Now, 100 years later, Cornell has no Department of Elocution and Oratory but still pays tribute to the class of 1886 by honoring a student enrolled in "Oral Communication" with the memorial prize. The contest still takes place in the spring semester, but the rules are somewhat different.

Students enrolled in the ag college's public speaking course, "Oral Communication", nominate one student from each of the course's sections to compete in the contest. The contestants then present their persuasive speeches in a preliminary round and nine of them are chosen to advance to the final round. The contest takes place in Warren Hall where the nine finalists compete for a share of $1,000 in front of an audience of approximately 100 people.

The contest is no longer restricted to members of the junior class. Last spring Jaime Silverman '85 won a $250 first place prize for his speech about government regulations of television music videos. Katie St. Vincent '87 placed second and won $200 for her speech about sexual harassment.

Seven other contestants divided the remaining $550.

This semester the '86 Memorial Speaking Contest will take place on May 5, 1986. Steve Warland, a lecturer in the Department of Communication Arts is organizing the contest. Two of the judges he has already chosen are David Drinkwater, Dean of Students and Kenneth Wing '58 Associate Dean of the College of Agriculture and Life Sciences. Warland also hopes to get some judges from the College of Arts and Sciences to honor the original Department of Elocution and Oratory that was once part of that college. Warland said, "There will be an attempt to make a note of the contest's 100-year anniversary with a little more to-do."

With the advent of new media technology, public speaking is no longer regarded to be as significant a form of communication as it once was. Reduced from a department at this University to only a course, we still respect the traditions of public speaking that the class of 1886 has left with us, and carry out their words, so to speak.
FLORA ROSE
The Unsung Partner
by Mary H. Hohenhaus '87

From 1907: Flora Rose was a guest lecturer in nutrition at the time. Later she organized the Department of Home Economics.

In 1905, an instructor at the Kansas State Agricultural College wrote letters to Stanford University and Cornell University because, as she said, "Neither of them had home economics, and in my reforming mood I decided they should."

Based on this letter, she was invited to lecture on nutrition at Cornell in 1907. She was then offered a full time position at the ag college in the hopes she would organize a home economics department. The woman was Flora Rose and, with Martha Van Rensselaer, she would be instrumental in establishing what is now the New York State College of Human Ecology.

Van Rensselaer had already been hard at work for seven years writing a bulletin for women as part of an extension program that relayed advances in agriculture and home economics to rural areas. But the role of home economics at Cornell would expand rapidly under Rose and Van Rensselaer's direction.

By 1909, nine students were majoring in home economics, survey courses were available to all students and the department held the first Farmer's Week. However, 1911 was to be a landmark year.

That year, a bill was introduced in the state legislature to obtain funds for a home economics building. Furthermore, the College of Agriculture & Life Sciences established two professorships for the department. Rose and Van Rensselaer were the first to receive those positions.

However, the appointments turned out to be one of many stumbling blocks. The pair was not accepted by the male faculty of the ag college and the director suggested that the two not attend faculty meetings until the furor died down.

The image of home economics was another problem. "The educators that were here at Cornell at the time, they always spoke about home economics in terms of buttonholes and pumpkin pies—as if that constituted home economics—and of course that was very irritating to those of us who saw something beyond that," Rose said.

Rose realized she and Van Rensselaer had to pool their resources if they were to make home economics an accepted course of study. When Rose was offered the department directorship, she refused. Instead, the two became co-directors.

The construction of Comstock Hall provided a sense of permanence for the department. "It made a very great difference in our work and everything we did, for the reason that as Virginia Woolf said in a title of a book, 'we now had a room of our own and our income,'" Rose said.

Shortly after moving to Comstock Hall in 1912, Rose discovered that a fund from the tuition of out-of-state students in her department was being used by another department. When Dean Betten asked "You wouldn't be mean enough to take that away from them, now will you?" Rose refused to be mollified. "We won't this year," she said, "but from this year on we keep our own income for our own uses."

Such incidents set a tone of independence for the department, an independence that would soon be real. In 1919, the department became the School of Home Economics and then, six years later, the New York State College of Home Economics. Home economics had finally received the recognition it deserved.

Rose continued as co-director until Van Rensselaer's death in 1932, just before the cornerstone of Martha Van Rensselaer Hall was laid. She held the position alone until her retirement in 1940. Jacob Schurman, the third president of the University, once described Rose and Van Rensselaer as "the only successful double-headed administration in the academic world."

Based on such sentiments, some felt the new home economics building should be named Van Rensselaer-Rose Hall, but Rose declined. Because she believed Van Rensselaer was the driving force behind their work, Rose refused to detract from Van Rensselaer's achievements. "I have been pretty good," Rose would say upon her retirement. "Martha Van Rensselaer was very great."

Yet there will always be those who believe Rose's contributions at least equaled those of her partner. "Miss Van Rensselaer had ideas," said Claribel Nye, a professor of home economics. "Miss Rose picked them up and made them work."
“Cornell students work for many reasons. Some wish to use the information that they learn in classes, some simply want or need the money, some students work to take their mind off classes, and still others work for the social aspects of the job,” said Dennis Chavez, Program Director of The Office of Student Employment.

“I work because I really need the money to pay for school because my mother can’t help me out with the bills,” said Martha Bennett ’86.

“I work partially to have spending money, but just as importantly for the fun of it. I get the best ‘facetime’ when I’m at work,” said Michael McGowan ’86.

When Ezra Cornell founded Cornell University, he stated that students who could not pay for school should be able to obtain work to support themselves. He wrote “I have always been in favor of combining labor and study.” This tradition has held true. In the 1984-85 academic year, over three-quarters of the undergraduate population at Cornell worked on campus. Almost every department in each college and school at Cornell has at least one student employee.

Some of the largest Cornell employers are Cornell Dining, the University library system, the Department of Physical Education, the Statler, Unions & Activities, computer services, the College of Veterinary Medicine, the Department of Animal Science, the Department of Chemistry and the Department of Residence Life.

When the Financial Aid office awards aid, the first component of every package is a College Work Study (CWS) allotment. The CWS program is a form of aid which subsidizes student wages with federal funds. Cornell receives an allocation of CWS funds and subsidizes employers 50 to 80 percent of a student’s gross wages.

Although many jobs on campus are CWS jobs, there are nearly 4,600 students who work through the non-work study payroll. Some jobs require specific skills or knowledge and the applicant pool of CWS people may not be sufficient. “Right now there is a job to meet almost every student’s need,” said Chavez. Whether it be fitting into their class schedule, relevant work experience for their career, or any other academic reason, there is a suitable job for almost every student who is seeking one.

Chavez believes that as state and federal funding for college continues to decrease more students will need to work while they are at school.

Some students on campus are able to find career-related work during the academic year, but others cannot. Chavez believes that even the jobs which are perceived as non-career-related provide students with valuable experience which can be useful as they prepare themselves for grad schools or the job market. “Depending on how students present a job experience to an employer, a food-service worker position can be as valuable as a more career-oriented job,” said Chavez. He also feels that “It is our responsibility as counselors and educators to show students how they can communicate job experiences so that it improves their ‘marketability’ after college.”

Robert Purcell Dining, a unit of Cornell Dining, employs nearly 200 CWS and non-CWS students. Martha Bennett ’86, who is the student personnel manager for the unit, said that “Dining jobs are unpopular for several reasons; the minimum wage level which workers start at, the idea of handling large quantities of food, and the physical labor involved in many of the positions are some of the drawbacks. Another reason for their unpopularity is the stigma attached to serving one’s peers. Some students feel that it is degrading to serve others.”

However, not all students dislike dining jobs. Many like the work for a vari-
Through

ety of reasons. "It is a completely different atmosphere from schoolwork [working in a library would not be], and many friendships between workers creates a 'family' atmosphere that many workers like. Bennett claims "Dining has the best benefit plan of any student employer on campus." Students can reduce the bills for their meal plans by 22 to 26 percent just by working a minimum number of hours for Cornell Dining each semester.

The opportunities for advancement within the student structure are very good. Bennett herself started out as a food service worker, was promoted to student supervisor and now is personnel manager.

As a student employee herself, Bennett reflected on her experience, "As a manager I have learned how to communicate better with people. You have to be a very good listener to spot problems and then take care of them." However, her job is not without its headaches. "I have to take a lot of flack and try to control an external situation which affects all of the student employees at R.P.D."

While dining jobs are stereo-typically seen as hard jobs, library jobs are seen as being easy. Michael McGowan '86, works as a reserve assistant and student supervisor at the reserve desk in Mann Library. McGowan loves his work. He said, "Mann Library is a very social library. I get to talk to people and I always have fun at work."

As an agricultural economics major, McGowan's work at the reserve desk is not directly career-related, but there are certain aspects of the job that will help him in the future. "In my career I will be doing a lot of research and analysis, and through working at the library I have become familiar with research techniques. I have also gained interpersonal skills which will be useful as I am interested in a service-oriented career."

Many students are apprehensive about working during the academic year, but McGowan finds that working helps his studies. "Working at the library does not take away from my studying hours, instead it takes away from the number of hours which I would 'blow-off' and not do any studying anyway," said McGowan. Chavez noted that many students report that they study more effectively if they have a job because it forces them to budget their time more effectively.

Recently, the student wage level system at Cornell has come under scrutiny. Among Ivy League schools only Brown University pays its student workers as low as Cornell does. Chavez said that "The Student Employment Office sees a need to raise student wages. We are supporting an increase across the board." A study is underway which will look at the impact of a wage increase on non-student Cornell employees. Chavez believes that many students perceive working for minimum wage, currently $3.35 per hour, as degrading.

Chavez also encourages students to look toward summer employment opportunities developed through the Cornell Tradition Summer Job Network. This program taps into an extensive alumni network that helps students find paid summer employment that relates to their field of study.

The Cornell Tradition Fellowship programs are intended to reward the work that students, who are financially eligible, do outside of the classroom by providing eligible students with up to a $2500 Tradition scholarship to replace the amount of loan they would otherwise have to borrow.

Student labor at Cornell is one of it's traditions, and is a tradition that is thriving today. Working one's way through college was seen as important over 100 years ago, and it may be even more important and necessary today.
When most people hear the term "industrial waste," they probably imagine a threat to the environment. However, a team of Cornell University researchers are more likely to imagine something else—a potentially lucrative way to recycle that waste.

Lewis M. Naylor, a senior research associate in the Department of Agricultural Engineering, has been investigating ways to recycle industrial waste for eight years. For the past two years, he has been working with research aide Jim Johnson. Together, they have found a number of new markets for products that were once dumped into landfills.

"Generally," said Johnson, "We work with substances that are a problem, but have a potential for valuable use. If the waste isn't recycled, it's usually put in a landfill."

Johnson said that depositing the waste in a landfill leaves many industries with costly waste-disposal problems. By recycling the waste, they can often turn that expense into a profit.

"A good deal of industrial residue contains nutrients that can be recycled for agricultural production," Johnson said. "They contain nitrogen, phosphorus, potassium and other essential elements. If refined properly, the wastes may be used as fertilizers."

Johnson gave the example of a pharmaceutical firm where Naylor and he found waste that worked well as a fertilizer.

"They produced large quantities of waste while making a variety of products, including penicillin. Before recycling, the waste is composted to make handling easier and to reduce nuisance problems."

Johnson said that the amount of recycling waste can still be less expensive than disposing of it."

Johnson recalled one such case at a cement plant near Albany. "The owners used to have to find places to pile all the kiln dust that was created."

Naylor and Johnson discovered that the material had value as a lime source to adjust soil pH and as a potash source for fertilizer. Now the company sells the dust. Johnson noted that, in this case, no refining was necessary. "It can be used exactly as it's collected."

Johnson pointed out that recycling also has the benefit of reducing the risk of pollution from the wastes. "When it's placed in a landfill, you've got a potential problem of leaching. The material may enter the water supply."

However, when Naylor and Johnson investigate ways to recycle the waste, they monitor the material to see if the contents are leached into the environment. "You have to be careful not to put down too much," Johnson said.

"You only want what can be taken by the plants. Nitrogen, for instance, can be a pollutant if there's an excess."

"We find levels that can be used successfully. We're looking for solutions, not problems."

The process of discovering whether waste has a potential use is a combination of field and lab work. First, the material is sent to different laboratories for analysis of possible beneficial or harmful substances. Naylor and Johnson look at the analysis, and then consider potential uses.

"For instance, if it comes back with a pH of 10 or 11 and little evidence of nutrients, it's a lime source," Johnson said. "If there's lots of nitrogen and potassium, it's a fertilizer."

"After we get back the lab analysis, we design 'pot studies,' where we take known quantities of soil in pots and add amounts of the residue to it. It's incubated with water at a constant temperature for a while. During incubation, the soil is tested to see what the changes are over time. This way, we know how it will act in the soil."

After the lab tests are completed, studies are conducted on actual farms. Sometimes, the farms are in the Ithaca area, but usually they are near the plant that produced the residue.

"For example," Johnson noted, "Lyons Falls has a paper company that uses waste wood to fire boilers. The ash from the boilers is now used on nearby farm fields as an alternate lime source. The project is nearly complete, but we have a couple of more monitors to make."

Naylor and Johnson's work has yielded benefits to both industry and agriculture—companies with refuse to dispose of have been able to supply vital materials to area farms. Yet even now, Naylor contends that far too much residue is being dumped into landfills.

"You have to look at waste creatively," he contends. "Too often, potentially valuable resources have been wasted. We've really got to look ahead to safe, manageable solutions to industrial waste problems."

by S.J. Getman '86
"Four out of five new businesses fail within the first five years. It's not surprising when the owners are untrained, unprepared, and where the know-how comes from the school of hard knocks."

Those are the words of Samuel M. Seltzer '48, and he has done more than just protest the current lack of education available for people wishing to run their own businesses. After more than ten years of trying, Seltzer, with help from College of Agriculture and Life Sciences Dean David Call, has succeeded in getting Cornell to offer a course in personal enterprise and small business management. This course is being offered for the first time this spring, and 70 seniors fill room 101 in Warren Hall to capacity on Monday afternoons to listen to lectures by Professor Emeritus Wendell Earle, and guest speakers.

"Cornell's the ideal place for a course in small business management," Seltzer said. "It has courses in economics, law, accounting, and labor relations. Now it has a class that brings those disciplines together."

Seltzer said he saw the need for a small business program to balance the influence on campus of the Johnson Graduate School of Management, the student a "generalist’s" knowledge. Seltzer said that since most small business people can't afford to hire specialists in all these areas when they're just starting out, it is the well-rounded business person who will be successful.

There will also be lectures in the course addressing the issue of social responsibility in business. "Most business people are moral and honest, or else they can't exist in a market place that is based largely on reputation," Seltzer said. "That doesn't mean you don't make mistakes, but the good business person does his best to make up for any of his mistakes," he added.

The course will attempt to touch on the many areas with which a person starting his own business needs to be familiar. Lectures on accounting, tax law, marketing, union contracts, and insurance policies will all aim at giving the student a "generalist's" knowledge. Seltzer said that since most small business people can't afford to hire specialists in all these areas when they're just starting out, it is the well-rounded business person who will be successful.

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Seltzer said that the big problem with many successful small enterprise people is that they don't talk about how they do it or how they get where they are. More guest speakers are expected to help generate "the romance of running your own show that typifies American history," he said. "Personal enterprise people employ about half of the U.S. work force. Personal enterprise people are responsible for 80 percent of new jobs created in this country," he added.

Seltzer, Earle, and a task force appointed by Dean Call are now looking into the possibility of extending the course into an actual advisory center for local small business people, similar to the program run by the Cooperative Extension to help local farmers. Seltzer said students could gain valuable hands-on experience working in such a center. Although Seltzer's seed money was certainly a main force in getting the small business program off the ground, it seems that his ingenuity and concern will be what will sustain the program in years to come.

Launching a Classroom Venture

whose graduates often go on to work for large corporations. Seltzer is chairman and president of the Allison Corporation, an automobile accessories business which he co-founded in 1960. "I wanted to bring onto campus a course that stressed the satisfaction of being your own boss," he said.

by Paul Weinberg '87
AGGIE ATHLETES
by Tracy Sullivan '87

The College of Agriculture and Life Sciences is producing student athletes who are excelling in the classroom and on the playing fields. Hampstead, Dwyer, Chocola, Dadswell, Brown, are a few of the aggie athletes who are doing the job for the Big Red.

There is however the misconception that many ag athletes are in have an easy work load and offer a relatively simple degree. But the misconception that athletes are second-rate is without support or evidence. Cornell admission applications have no area for designating athletic status, and the university does not offer athletic scholarships. Athletes, therefore fulfill the same admission requirements as other students.

Not only are aggie athletes fulfilling academic requirements, they are excelling in them. Karin Dwyer, a senior and a four year starter for the women's basketball team, is a Dean's List student. She has been nominated for Academic All-American and was named to the second team All-Ivy for two consecutive years. Dwyer is a member of the Red Key Society whose members excel in academics and athletics. Dwyer is majoring in agricultural economics and is interested in management in the fashion retail industry. Dwyer said, "My education in the ag school will help me attain my career goals, while being an athlete has enhanced my leadership qualities. These qualities will help me excel in a field as competitive as the fashion industry."

Dwyer is not alone in her successful endeavors on the playing field. Sophomore Douglas Dadswell is coming into his own on the ice as well as in the classroom. Dadswell was selected ECAC Hockey Player of the Week for the weekend of February 13, 1986. The goaltender stopped 75 shots over the weekend when the Red faced Dartmouth and Harvard. Dadswell was runner up rookie of the year last season. Dadswell, an agricultural economics major, said of his future goals, "I would like to play professional hockey, but if I don't get an opportunity to play, I will have a strong foundation for a career in business."

Sherrie Chocola, the Most Valuable Player of Cornell's women's soccer team, is a Dean's List student. The honorable mention All-State captain is majoring in agricultural economics. Chocola's area of interest after graduation is fashion retail. Of agricultural education and her experience with soccer Chocola said, "Ag education has given me a foundation for a business environment... Sports has provided a fine medium to enhance my capacity to work with others. The combination of these two experiences should be beneficial in the business world."

The women's ice hockey MVP Molly Brown is a Dean's List student as well. The honorable mention All-Ivy, Red Key Society member is a senior majoring in agricultural economics. After graduation Brown is interested in attending law or business school. Brown said being an athlete in the ag school has taught both leadership and time management. "Both have merged, and the qualities I have gained will help me attain goals in law or in business."

Curt Hampstead, the All-Heptagonal high hurdler holds school records in both indoor and outdoor high hurdles. Hampstead is a senior majoring in communication arts. Of the ag college Hampstead said, "Ag professors tend to know what I'm doing in sports, and otherwise; this inspires me to do better. Communication arts has taught me principles of communication which help me project myself in a more positive light inside and outside of competition." After graduation, Hampstead is interested in acting, public relations, or business.

Few people realize the time and preparation athletic participation involves. Demands in one's particular sport pose a real challenge to excel in academics. With practices, team meetings, films, and road trips time is a precious commodity for the college athlete. It takes a person of quality to balance the demands successfully. According to Cornell's Sports Information Office, when Ivy League student-athletes were compared to non-athletes, athletes exhibited better academic performance on the average than the general student body. So you see, aggie athletes are not second-class students. In many cases they are the cream of the crop.
Team Hits Paydirt

It was a dirty job, but the Cornell team took the championship at the Northeast Regional Soil Judging Contest in November and will compete in the Nationals in April. The contest tests knowledge of soil types and their properties and characteristics, such as ability to hold water and texture. There are over 10,000 different types of soils in the United States. The team coach is Ray Bryant, an assistant professor in soil classification; agronomy graduate student Kathleen Hanford is his assistant. Team members are: John L. Burns, John Lory, Amy Ohlberg, Karl Cyzmmek, David De Golyer and Carl Etnier.

Cereal can get sick. Barley yellow dwarf virus attacks wheat, oats and barley all over the world. William F. Rochow PhD ’54, a specialist in plant virology at Cornell, has received the 1985 Ruth Allen Award from the American Phytopathological Society for his work on the virus. Rochow is a researcher in plant pathology for the USDA and a professor of plant pathology at Cornell. He has been on the faculty since 1955. Since that time, he has focused on the interplay of factors involved with the virus. In an attempt to pinpoint the life cycle of the virus, Rochow looked at different virus strains, different species of aphids which transmitted these strains, and the plant hosts of the virus. The award primarily recognized him for discovering and describing carrier specificity for the virus. He has found five carrier-specific viruses transmitted by four aphid species.

Education Vacation

Spring must be coming because it is time to register for Cornell’s Adult University (CAU) in the summer. Dubbed the ‘education vacation,’ CAU offers programs for scholars from age three on up. The program offers classes, and a chance for alumni and others to spend a week immersed in college life: living in dorms, eating co-op, walking to classes. Some of the classes offered during four one-week sessions beginning June 29 are: “Africa Today and Tomorrow,” “Cayuga Lake Ecology and Archaeology,” “Espionage and Intelligence” and “Introduction to Garden Design.” For free information and to register, write CAU, 626T Thurston Ave., Ithaca, NY, 14850 or call 607-256-6260.

Cuomo Honors Extension

New York Governor Mario Cuomo has proclaimed March 9-15 as “Cornell Cooperative Extension Week” to honor 75 years of service by Cornell extension agents. The week marks the anniversary of the first New York county agent’s appointment. Cuomo noted that the agents serve many aspects of life in New York, not just rural families. Extension involves education about nutrition, youth and community development and farm management. About 100 4-H members from New York will commemorate the week at the 51st annual 4-H Capitol Days Celebration in Albany March 10-11.

Not only students have fraternities. Epsilon Sigma Phi is a national honorary fraternity for Cooperative Extension. Many Cornell extension associates won awards from this fraternity at a recent statewide conference held at Cornell.

Bruce Bower, a Cornell Cooperative Extension associate in the Department of Rural Sociology at the New York State College of Agriculture and Life Sciences, won the “College Based Award” for developing computer literacy education for extension agents. Ruth Klippstein, professor emeritus in Cornell’s Division of Nutritional Sciences, won the “State Distinguished Service Award” for her work in nutrition. For extending county programs to a vast audience, Josephine Swanson, also received the “College Based Award.” She leads extension programs in the Department of Consumer Economics and Housing in the New York State College of Human Ecology. Jeanne Hogarth, of the same department, won the award for “Less Than Three Years of Service” for a financial management program and family resource management. Several team awards were also given, such as to the Cornell Local Roads Program and the New York City Farm Education Youth Program. Others awarded were: Nancy Potter, Richard Eschler, Linda Burns, H. David Green, Madeline Umscheid and R.A. Howard Jr.

A Bright/Dim Idea

Agricultural engineer Michael B. Timmons PhD, ’79 has developed a device which controls light, and thus day length, and ventilation in poultry houses. For a chicken, the perceived length of the day regulates egg production. A hen lays about one egg every day. The ‘low angle light trap’ notion netted Timmons, an associate professor in the New York State College of Agriculture and Life Sciences the 1985 Doerfer Engineering Concept of the Year Award. The prize is given by the American Society of Agricultural Engineers. While Timmons’ device has found acceptance with chicken farmers, it would also help save money with other species having light-related breeding habits, such as horses and sheep.
New Angles on Computer Graphics
by Corinne Renée Hermann '86

"Lunchtime Bytes" is sponsored by Academic Computing, part of Cornell Computer Services, and offers various computer graphic presentations each Thursday until May 8, 1986. However, this seminar series only provides a taste of the array of computer graphic facilities at Cornell. "Lunchtime Bytes" is but one small meal in today's diverse menu of computer graphics at Cornell University.

As one example, computer graphics are being integrated into the Department of Agricultural Engineering within the College of Agriculture and Life Sciences. "We have the newest instructional facility in the University," said Prof. Ronald Furry '53 who teaches the agricultural engineering course, "Computing with Graphics." Furry teaches how to use the FORTRAN 77 language as well as how to write programs that can, among other things, rotate a three-dimensional image. Eventually, virtually all of the agricultural classes will be using the College's graphics facility, said Furry.

A new software system called AutoCAD, Automatic Computer Aided Drafting, will be integrated into the agricultural engineering classes "Processing and Handling Systems" and "Engineering Drawing." AutoCAD software takes about one month to learn and manipulate, according to Furry. The facility in which this software will be used is composed of IBM PC AT's, drum plotters, graphic printers and monochrome and color displays.

The agricultural engineering department at Cornell has five sets of software for instructional use, obtained from Autodesk, makers of AutoCAD. The AutoCAD package allows the user to produce three-dimensional drawings in color. With this system, the user can build, analyze, draw and rotate an object. "Through this system one can design any object—from a building to a car—and create a database that will produce a bill of materials needed for its production," said Furry. Other software packages can be used to graphically represent physical systems, such as aerospace engineering problems; or biological engineering applications by generating a mesh representation of an object.

The AutoCAD system in Riley-Robb Hall uses two display screens. One screen shows system questions and answers for the user, while the other displays the object in color. This question and answer phase goes on between the computer and the user until the object is exactly to the user's liking. This involves representing objects as wire frame models where all surfaces are transparent, a six-pin drum plotter that chooses a specified pen color and a datafile that describes every vertex on an object. The display screen allows the user to preview the object before generating the output on a hard copy device, such as the drum plotter.

However, the buffet of facilities does not end in the agricultural engineering department. "Computer graphics can also be used and applied to the full range of human involvement—language, medicine, architecture and interior design. "For a university, we have the best computer graphics equipment for state-of-the-art research," said Assistant Professor Michael Cohen MS '85, who is working in the Program of Computer Graphics with Computer Aided Design. This system is also being introduced into the "Architectural Computer Application course." However, this system operates primarily as a graduate research facility as opposed to an undergraduate instructional one.

The research done here is primarily to see how one can talk to and interact with a computer graphically. Research is performed using interactive geometric modeling, structural analysis and realistic image synthesis. Applying this system to architecture, one can see how a steel frame would deflect and bend, create imaginary three-dimensional objects, even arrange an art gallery by computer and adjust the lighting.

As complex as all of this may seem, it is only like blinking one's eye at someone else's life—only a fraction of what the entire world of computer graphics can do. However, as small or large as all this may seem, Cornell is playing a major role in the development and application of computer graphics.

Eventually, computer graphics may be universally applied to all fields. Someday "The Farmer" may be created on "Pagemaker" where graphics are just "pasted into," text is "poured into" in an electronic manner and everything is "written" on a laser printer. Next time you pull up a menu on your personal computer, "graphics" may be one of your main courses.

New York State College of Agriculture and Life Sciences, a Statutory college of the State University, at Cornell University.
Food
ABOUT THE ISSUE

In this issue we discover the many ways food enters our lives, as well as our bodies. We view student eating habits at Co-Op Dining, and we take a behind-the-scenes look at Cornell Catering. We examine the way food effects the way we feel, and we investigate alternative diets. In short, we find food to be a major force in our lives. “Dig In!”

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication Arts. Honorary editor: Edward L. Bernays '12. Faculty advisors: Linda Myers '64, Jane E. Hardy '53.
Foods and moods

What you ate for breakfast this morning may play a big role in what kind of mood you find yourself in during the day. Could your short attention span and listlessness have been caused, in part, by the coffeecake you ate before dashing out to catch the 8:15 a.m. bus? Is it possible that those scrambled eggs you had have helped you keep an even temper through the day’s static? Perhaps. The connection between our diet and our emotional state is a topic that scientists and nutritionists are continually attempting to understand.

It is not exactly a novel premise that there is some kind of relationship between food and emotions; consider the frequent experience of losing one’s appetite during times of grief, or eating too much in times of depression or loneliness. Emotional problems commonly surface in the forms of eating disorders such as bulimia or anorexia nervosa; stress and nervousness can cause people to eat either more or less than their usual intake.

Some experts now suggest that not only does how we feel influence how much we eat, but also what we crave. Furthermore, what we eat may in turn affect how we feel and behave.

“Food is more than just chemicals and nutrients,” said Professor David A. Levitsky of the Division of Nutritional Sciences. “Certain foods—sweets and fats, mainly—have come to really represent a close bonding between people.” Professor Levitsky tends to think of our cravings as rooted primarily in our social environment; although biochemical changes occur after we eat, just how great an effect what we eat has on our moods is not certain.

Certain foods affect brain functioning in some people much in the same way that drugs can. Neurotransmitters, which are chemicals found in the hypothalamus area of the brain, are instrumental in affecting our emotions and behaviors. Nutrients in different foods can affect our moods by increasing or blocking the amount of different neurotransmitters produced.

When large amounts of carbohydrates are eaten, the level of a neurotransmitter named serotonin is increased. Serotonin is capable of affecting a variety of physiological manifestations, such as pain, aggression and how much we sleep. It is also thought to induce, in some cases, “flightiness” or difficulty in concentration.

Eating proteins tends to limit the level of serotonin produced, resulting in alertness. It seems logical then, that a high-protein, low-carbohydrate breakfast and lunch would help you stay alert during the day. Conversely, by having a high-carbohydrate, low-protein evening snack, you could help yourself to a restful slumber.

Professor Levitsky was quick to point out that such a simplistic conclusion would be misleading. “I don’t think anyone will argue that when we eat a big meal, we get sleepy. This is consistent with what we know about serotonin and its effect on sleep, yet we have to ask ourselves two questions.” The first question to be asked, said Levitsky, is just how much does the level of serotonin rise after we eat? Also, how fast can we build up serotonin? It takes eight to ten hours for the level of serotonin to rise, which seems to suggest that our sleepy feeling after a meal can be attributed to another cause.

“After a meal, there is a redistribution of blood from the muscle tissue into the gastrointestinal tract,” said Levitsky. One must also realize, he pointed out, that blood also leaves the brain. A slight “unconsciousness” can result, which makes us feel sleepy.

Why do we crave carbohydrates when we are trying to diet? Some researchers believe that the reasons behind this occurrence are biochemically rooted. They point to the fact that our hunger is selective for the most part to certain types of foods. It is known that when we eat carbohydrates, the level of serotonin rises; when the level of serotonin rises, our craving for carbohydrates decreases. But does our craving for carbohydrates stem from low levels of serotonin? There is not enough evidence, said Levitsky, to support a theory that is solely based on the connection between food and effects on neurotransmitters. It is interesting, however, that we do not break our diet for just any type of edible. As Professor Levitsky joked, “Nobody wakes up at midnight with a craving for broccoli or brussels sprouts.”

by Suzanne Rowan ’86
COPING WITH CO-OP

by Mary H. Hohenhaus ‘87

The first thing my sophomore year roommate hung on our wall was a small sign that said “No beached whales at Christmas.” It was a small but effective reminder of the extra weight she had gained freshman year. Just where did those pounds come from?

Freshmen have a lot to adjust to their first semester: a roommate, classes, a different environment. Food is just one more thing on that list. Because Cornell University reputedly has one of the best dining programs available, Cornell freshmen are luckier than their friends at other schools. But they are perhaps even more likely to gain the infamous “Freshman Fifteen.”

“I love food and I knew Cornell had a good dining program,” Lisa McCurry ‘89 said. “But it is so easy to go crazy at meals because it is all paid for in advance and there is so much variety.”

The sheer quantity of food seems to present another pitfall. “It’s the kid in the candy store routine. There aren’t the restrictions you have at home where there are five people for dinner and enough food for five. At Co-op, I can eat all I want,” said Becki Fadel ‘89. Roger Doughty ‘89 described it simply as “heaven.”

Freshmen often discover that food is just more accessible than it was in high school. On the ag quad, students are only minutes from the Alfalfa Room, Martha’s and the Big Red Barn, not to mention the vending machines that seem to appear every few feet.

Food is also the center of many social activities. “There is no such thing as a get-together just to talk. There is always food,” said Gayle Shomer ‘89. “Instead of saying ‘let’s get together and study,’ you say ‘let’s meet for lunch.’”

Studying itself presents yet another opportunity for eating. “Food is the big thing for study breaks. You can’t just stop studying and talk, so you go get some ice cream,” said Carol Anne Slaughter ‘89. The pressure of exams and deadlines tends to cause even more snacking. “I’m an emotional eater,” Slaughter said. Eating in response to stress is a common complaint. “You can tell the stress signal—257-4111, ‘May I have a small pepperoni pizza?’ It’s a standard remedy,” Fadel said.

As the semester wears on, many find it increasingly difficult to eat nutritiously as cafeteria food becomes repetitious and loses its charm. “I got a lot more into greasy food from the grill because I got tired of the regular entrees,” Doughty said. Many freshmen joke about being able to tell if dinner is any good by how long the grill line is. Long lines mean poor entrees. “It was really hard to go to dinner by the end of last semester because the food just wasn’t good,” Joe Huber ‘89 noted.

Given these problems, it is not surprising that many freshmen do gain weight. Many find themselves far less active than they had been in high school. “You don’t have physical activity. Here, you go eat, sit, then eat and go to bed,” Harlan Williams ‘88 said. Motivation to exercise is sometimes hard to come by with Ithaca’s long winters. “You just don’t want to go outside when it is gloomy and cold,” said Susie Quamo ‘88. “But when spring comes, that changes.”

Time, then, seems to be the key in getting eating habits back under control. Freshmen learn to cut the extras out of their meals and begin to cope with academic pressures more effectively. Becoming involved in campus activities, rather than trying to study all the time can help a lot, as Huber noticed. As with everything else in freshman year, coping with food is just another part of learning to be on your own.
A Second Chance for Supper

It’s 7:30 pm. Dale Wang ’86 looks at his watch and realizes he just studied right through dinner.

It’s 8:45 pm. Karen Purcell ’87 had a late lunch, so she put off dinner until now.

It’s 9:20 pm. Sanjeev Taneja ’88 is drained. He just finished a tough prelim that he has been cramming for all day. Now he’s in the mood for some chicken nuggets.

Where do all these students go when they have missed dinner served at regular hours? McDonald’s? No. They go to Late Night.

Cornell Dining Services offers an alternative to dinner served during regular hours. It’s called “Late Night.” Served from 7:30 pm to 10:00 pm Sunday through Friday, Late Night is available at two locations on the Cornell campus: the Ivy Room at Willard Straight Hall and Robert Purcell Union.

Because students do pay in advance for their meal plans, missing dinner can be a waste of money. Busy schedules often make missing dinner unavoidable, so many students take advantage of Late Night’s hours.

The most common answer to “Why do you go to Late Night?” is, “It’s convenient.” Ivy Room Supervisor, Lee Peckenpaugh, said people come to Late Night dinner after they get off work or other activities.

“Tuesday and Thursday nights are crazy after 9:00 — those are big test nights. I would estimate more than 600 people come through here on those nights,” said Peckenpaugh.

Another big reason the Late Night fans prefer it over regular dinner is the variety of food. “I love chicken nuggets, and they only serve them at Late Night,” said Sanjeev Taneja, balancing a stack of three nugget boxes. The chicken nuggets are among this year’s most popular additions to the Late Night menu at Robert Purcell Union. Other Late Night eaters like to go to the Ivy Room for the hot chili or the yogurt selection.

Unlike regular dinner, students can carry their Late Night food out with them. But there is a limit. Students in the check-out line stare at their trays, mentally tabulating the price of their food to make sure they are under the $4.50 limit.

“You have to draw the line somewhere,” said Peckenpaugh. “The maximum you can get when charging it to the regular meal plan is $4.50, because that’s comparable to how much someone would normally eat during Co-op.”

He said students often complain that they should not have to pay the cash difference when they have slightly more than $4.50 worth of food. “But then the maximum goes to $4.60, then $4.70, and then it’s like having no limit,” explained Peckenpaugh.

Because students can carry out the food, Late Night often becomes an opportunity to “stock-up” on munchies. “This is tomorrow’s lunch,” says Annette Chiang ’86, packing up a ham sandwich to go. Others leave Late Night with an entire pizza. Packaged snacks like cupcakes, chips, and pretzels are especially popular takeout items.

Pointing at a tray loaded with seven packages of Hostess Ho-Hos, Karen Purcell laughed, “You can stock up for a week when you come to Late Night.”

What other reasons do people have for waiting an extra hour or two for dinner? “It’s more relaxing here now,” said Ivy Room worker Doren Tal ’89. “The lines are shorter, you can find a seat, listen to the jukebox, smoke — it’s kind of a Bohemian atmosphere.” “I just wasn’t hungry when regular dinner was being served,” is as good a reason as any, said Isaias Bengegas ’87.

All in all, Late Night seems to be a practical answer to busy schedules and the dull routine of regular dinner.

“Sure, I like Late Night,” grinned Taneja as he tucked his three boxes of chicken nuggets into a bag and walked out the door.

by Cindy Hsu ’87
On the Dairy Farm:

by Howard Rosenberg '87

In March 1986, Congress approved a bill that circumvented the landmark Gramm-Rudman-Hollings deficit reduction law enacted in December, 1985. The beneficiary is not defense, health, or education; it is the U.S. dairy farmer. When members of Congress from dairy farming states met constituents during the February recess, they were lobbied by dairy cooperative leaders who complained about the way Congress wanted dairy to meet its fiscal year 1986 cut under the deficit reduction law.

The cooperative leaders complained that on March 1, 1986, the price that the government pays for milk products was to be lowered by 50 cents per hundredweight.

So Sen. Robert Kasten (R-Wis.) came to the rescue and proposed a bill in late February that passed a few weeks later, which adds an assessment of 10 cents on all milk instead of lowering the price that the government pays for milk products that it buys as surplus.

The 10-cent assessment is designed to cut the federal deficit roughly equal to a 50-cent price support cut. Consumer prices for milk and milk products are unaffected by either plan.

According to Prof. Andrew M. Novakovic, agricultural economics, the dairy cooperative leaders complained because to them, "A 10-cent assessment is obviously less than a 50-cent price cut, and if it is revenue neutral, why not take the route that's easier on farmers?"

Congress did not approve the Kasten bill until House Speaker Thomas P. [Tip] O'Neill said he would support changes in how revenue is raised in other government outlays to meet deficit reduction targets.

A representative from Kasten's state of Wisconsin has not had any success with his own dairy bill. Democrat Robert Kastenmeier has reintroduced a provision that was kicked out of the 1985 farm bill — a quota on U.S. milk production.

The faculty consensus is that a quota would have major faults.

According to Prof. George L. Casler BS '50, MS '59, agricultural economics, "That quota gets to be worthless money. I think in [Ontario,] Canada now if you buy a farm it costs you as much to buy into the quota as it does to buy the cows. So it's great for people that are already there."

Casler said consumers are opposed to production quotas, as are farmers in general:

"It's going to increase the cost of milk for consumers .... He [Kastenmeier] is talking about a price of $15.15 per hundredweight of milk, which is probably two to three dollars above what the price is now." In February, the New York/New Jersey average price for milk per hundredweight was $12.11.

Prof. Wayne A. Knoblauch, agricultural economics, said a quota is not good farm policy: "It basically locks you into your current production scheme. Inefficient farmers are allowed to continue."

Stuart F. Smith MS '66, senior extension associate at Cornell, said a quota is inconsistent with U.S. values: "This goes against the grain of American freedom of entry into new business, of being able to graduate from high school or college and start dairy farming without a production base."

Production quotas have been tried a few times in the United States. John R. Brake, William I. Myers Professor of Agricultural Finance, tells how U.S. grain farmers bypassed an acreage quota in the 1950s:

"You planted your grains on your best land, you fertilized the heck out of it, you got the best varieties, the newest varieties, because they [improved technologies] were more productive and you still had overproduction. If you're going to put a quota on it, it makes sense to put it on the quantity of the commodity that's going to be marketed. So if you have a milk quota, you don't put it on cows ... you put it on milk." Brake said.

Brake said the production quota is one of two ways to lower the surplus: "One is to limit the amount you can market by a quota system. The other is to let the free market more or less push people out and you can make an adjustment that way. That's a pretty severe adjustment and that appears to be the way we're going," Brake said. "Let the free market force enough people out to where those that are left can satisfy markets and that puts the whole industry through a kind of grinder."

The newest dairy program, which is in the midst of being instituted, has been called the Democrats' biggest victory over the Reagan Administration in the 1985 Food Security Act. The herd buyout plan will pay farmers to not produce milk for five years and to sell entire herds of cows, calves, and heifers for slaughter.

Prof. Wayne Knoblauch says the herd buyout should be attempted.
Dealing with Surpluses

The House agreed not to rejuvenate the recent Milk Diversion Program—which paid farmers to cut milk production by five to thirty percent—when the Senate accepted the House’s herd buyout plan.

Novakovic said the milk diversion and herd buyout programs are products of a long-standing ideology on surplus reduction that has only recently been reflected in law. The view that used to predominate was, “Let’s cut prices,” Novakovic said.

Cutting prices has lost popularity because some dairy farmers would not be able to service debts caused by declining values of land, livestock, and machinery: According to Smith, in New York state, “Our land values really haven’t changed that much [as compared to the midwest]. But certainly the cow values and machinery values have gone down with the price of milk.”

The new predominant policy, “Let’s do anything but a price cut,” is reflected in the herd buyout’s attempt at reducing the milk surplus by lowering production, Novakovic said. “The milk diversion program was the first major attempt to try to do something else besides price.”

The goal of milk diversion was to reduce the surplus from about ten percent to five percent. “You can live with a modest degree of surplus,” said Prof. Kenneth L. Robinson MS ‘47.

Approximately one-fifth of dairy farmers participated in milk diversion—in effect from January, 1984 to the end of March, 1985—by accepting payment for cutting their milk production on an average of 20 percent.

Novakovic said the surplus dropped to 6.5 percent in 1984, but rose back to 9.4 percent in 1985. The diversion plan’s main fallacy was that milk production jumped again after the program expired: “Not everyone immediately resumed that 20 percent, but clearly once the government payments stopped, it didn’t make sense to have your barn 20 percent empty,” Novakovic said.

Knoblauch said that a permanent diversion program is unreasonable: “Do you want to take your tax dollars and continually pay someone not to do something? It doesn’t sound like a very efficient operation to me.”

The herd buyout should prevent the milk surplus from reaching record 1983 levels, Novakovic said. “The projection is if we didn’t do something like the buyout program, that we would have as much [of a surplus] as we had in ’83.”

The goal of the herd buyout is to get roughly 12 billion pounds of milk out of production, out of the 143 billion pounds produced nationally, Knoblauch said: “They tried just taking the cows out; that didn’t work. So now they’re trying to remove dairy farmers and dairy farms.”

Knoblauch said the surplus reduction programs such as the herd buyout are needed because of a significant jump in milk prices in 1979 and 1980: “What created it, in my opinion, was a signal being sent to the farmers through the price support system that we want more milk. They were basing that price on a cost of production which did not reflect the market conditions . . . . Now they’re trying to send the opposite signal and they’re finding out that it was easier to increase production that it is to decrease production.”

The prospects for the herd buyout are uncertain. Novakovic said, “I don’t think it will be a tremendous success and I don’t think it will be a tremendous failure, but it’s hard to know at this point where in between it will be.”

Smith said the herd buyout will not likely reduce the surplus: “I’m afraid that the dairy buyout may not work because the people that are not participating in it are going to increase production.”

Robinson agrees with Smith, and points out that since 1975, the number of dairy farmers in New York has dropped by about 20 percent while milk production has risen 18 percent: “The gains on the more successful farms have more than offset the reduction [in farm numbers]. You can buy out 20 percent of the farms over a 10-year period without having much effect on the dairy surplus.”

Robinson proposes an alternative solution, combining a quota with a low government support price: “If the buyout scheme doesn’t work, we may move toward a quota plan with a lower price for over-quota milk.”
Chinese okra, cactus pears, Belgian endives, red swiss chard - no these are not items found regularly in your refrigerator. However, these imported goods from Hong Kong, West Germany, Switzerland and France are available at Ludgate Produce Farms.

Ludgate’s was founded by Paul Ludgate. The enterprise began as a summer project by his son Michael Ludgate '80, and his daughter Linda Ludgate and consisted of a picnic table stand by the road displaying sweet corn.

“Linda and I actually opened our stand in 1973 and began to diversify our products by 1974,” Michael said. Michael and Linda asked a farmer to grow some sweet corn for them and began to sell it. “After the corn began to take off we rented some land and began growing some other vegetables - squash, pumpkins, cucumbers - and anything else we could get our hands on,” said Michael.

“When I went to college I learned the business side of farming and realized that we were not making any money by selling on a picnic table during the summer. So I began to apply my studies to our small business. My father supported Linda and me by pushing us to extend our daytime hours, remain open seven days a week - 365 days a year,” Michael said.

After this initial drive, Ludgate’s began to flourish and today remains as a family business and has quite a bit more than just cucumber crops. Roberta Ludgate does the bookkeeping, Paul Ludgate orders the specialty foods, Linda is responsible for the market runs to Syracuse and her husband, Peter, for the runs to New York City. Michael Ludgate is the general manager.

“A lot of our time is spent going on market runs and making deliveries,” said Michael. Twice a week Linda goes to Syracuse and picks up specialty produce items that cannot be obtained locally, while another truck goes weekly to New York to buy imported cheeses, grains and cookies, according to Michael.

Ludgate’s also delivers much of its produce to local restaurants and colleges. “We deliver imported produce to L’Auberge and the Ithaca Country Club,” said Michael. Occasionally, Ludgate’s supplies many of the specialty products needed at the Cross Country Gourmet events sponsored by Cornell Dining. “Frequently, we supply and deliver apples, oranges and other products to sororities, fraternities and living cooperatives run by the Student Management Corporation at Cornell,” Michael said.

Aside from deliveries and market runs, Ludgate’s itself is a great source for atypical as well as typical produce. “I like getting into the different things -this is how we survive on the agricultural market,” said Michael. And different they are! On any given day at Ludgate’s, one can expect to find cactus pears, Queen Anne plums, dried mulberries, onion-garlic soy nuts, 100 varieties of fresh herbs, rutabaga, specialty and hybrid cut flowers and the list goes on. On this and any other given day, one can also discover a good number of patrons.

“I shop here every week for produce because it is much fresher, you get more for what you pay and the atmosphere is more enjoyable,” said Diane Fassak. “Ludgate’s has vegetables, grains and noodles that are just not available in other local stores,” concurred Nina Christian.

Many customers come to Ludgate’s after they have stopped at other grocery stores. “I come here in addition to other food shops, when I need fresh herbs or various fresh and dried fruits,” said Debra Castillo. Ron Handleman '85 said, “I come to Ludgate’s when I am in need of or in the mood for something different. They have quite an unusual selection of items.”

Ludgate’s has come quite a long way from its roadside days. So the next time you run out of marzipan, French Park Vienna coffee, dried currants or just want to look through cases of cheese or piles of pasta, make a trip to Ludgate’s where the atmosphere of the sidewalk is still evident in the pebbled ground and tree-surrounded store.
“My son has no idea that he eats fish for dinner. There is a 100 percent replacement of cod or pollock for the beef in his tacos,” explained Joe M. Regenstein, BA ‘65, MS ‘66, Associate Professor of Food Science in the Department of Poultry and Avian Sciences. Little does Joe Regenstein’s son know that he is eating one of the healthiest foods on the market.

As Americans, we do not eat enough fish. That bad habit is obvious in the statistics of “ischemic heart disease, including atherosclerosis, and thrombosis, [which] is the leading cause of debility and death in western industrialized nations. [It affects] more than four million people in the U.S. and costs well over $50 billion per year,” according to Prof. John E. Kinsella of the Department of Food Science.

“There are approximately 13.6 pounds of fish consumed per capita per year. This figure compares to 60 pounds of poultry and 120 of beef. Other countries eat a lot more fish,” said Regenstein. In addition, Kinsella pointed out that “A comparison of Japanese fishermen and farmers consuming 250 grams and 90 grams of fish per day, respectively, revealed that mortality from heart disease was significantly lower in the fishermen.”

With the help of highly unsaturated fatty acids found in many fish, the Japanese and the Eskimos have maintained a healthy diet. What kind of fatty acids are we talking about? “They are called omega-3 fatty acids and can protect against heart disease in three ways: making platelets which are important clotting factors less sticky in the blood, lowering blood fat levels and changing the balance of lipids—fats and cholesterol—in the blood,” explained Regenstein. He also indicated that the fattier fish, such as tuna, salmon, mackerel, and herring are the fish that contain more of the omega-3 fatty acid. “Most Americans, however, eat very little of these fish,” said Kinsella.

It is important for everyone, especially children, to eat right. We all know how difficult it is to get youngsters to eat fish. “Frying and breading are not the healthiest ways to prepare fish, but it keeps the good things in and kids may need the calories, so something like fishsticks may be a very decent meal for them,” said Regenstein.

One youngster who will continue to eat fish rich in omega-3 is Joe Regenstein’s son, provided he does not read this article. If you know him, please help us keep this secret.
A lot of people would like to forget DDT. The pesticide was used in huge doses in the 1950s and 1960s before finally being banned in 1972. But DDT won’t forget us, according to Cornell ornithologist Richard E. Bonney Jr., who claims that significant quantities of DDT are finding their way back into the environment under another name: Dicofol.

Dicofol is commonly applied to agricultural fields and gardens every year to prevent mite infestation. “It was first registered in 1957 and then re-registered in 1972 after DDT was banned,” said Bonney, associate editor of the Living Bird Quarterly, published by Cornell’s Laboratory of Ornithology. “It was found that dicofol contained 10-15 percent DDT. The manufacturing process that converted DDT into dicofol was imperfect.”

James W. Gillett, professor of ecotoxicology in the Department of Natural Resources at the New York State College of Agriculture and Life Sciences, and a nationally recognized expert on the effect of toxins, corroborates Bonney’s concern about the manufacturing process of dicofol. But he sees dicofol as a lot safer than other pesticides in and of itself. “Dicofol doesn’t have the persistence of DDT,” Gillett said. “It doesn’t have the direct effects, although that’s difficult to prove.”

Which is exactly what bothers Bonney, who admittedly has been reassured by the studies of Gillett and other Cornell chemists. “To be honest, I don’t think dicofol is quite as much of a threat as I first thought it might be. But only because the EPA has ordered that the concentration of DDT in dicofol be reduced from 10-15 percent to less than .1 percent.” Officially, the EPA doesn’t know dicofol’s effects. “I maintain the effects of dicofol — without DDT — should be studied,” he said.

The EPA’s timetable to reduce the DDT contamination of dicofol is still a bad precedent, according to Bonney. “It doesn’t mean it isn’t harmful. It doesn’t take much.”

Just what does DDT do? “It causes eggshell thinning in top level carnivores, like falcons, eagles and birds that prey on other birds,” Gillett said. “It leads to lower reproductive rates, and the birds already have a low number of chicks per season, so it really puts them at risk.”

But DDT’s harmful effects may not stop with birds. “For humans, the effects are not known, but it was suspected that it was a carcinogen,” Bonney said. “After DDT was banned in 1972, all the studies were dropped.”

Without even considering the potential danger of dicofol, both Bonney and Gillett agree that DDT residue from past spraying is plenty enough to be concerned about. “DDT is almost as potent now as when it was banned,” Bonney said.

“We’re trapped with it. There’s little we can do with it at this stage environmentally,” Gillett said. “DDT has a half-life in the decades. We’ll be seeing the consequences of DDT use in the 21st century.”

by Toni Monkovic ’87
Out of the sky they come; other legions advance along and beneath the ground, and in the water. Man’s desperate defenses claim a few of the invaders, but most surge on, ravaging the landscape. The most effective weapons cannot be used; they would destroy as much as they would save. But all is not lost. The invaders are defenseless against infection! They sicken and die, and our fragile way of life is preserved.

The War of the Worlds scenario has actually been played out for many years as researchers and farmers around the world use bacteria, fungi, protozoa, and viruses to combat the insect pests that destroy millions of tons of crops each year.

At the leading edge of this global effort is the Boyce Thompson Institute for Plant Research. Although not a unit of Cornell University, Boyce Thompson shares the Ithaca campus, and maintains a close affiliation with the College of Agriculture and Life Sciences. Several BTI scientists are adjunct professors with the ag college Undergraduate and graduate students often collaborate with BTI scientists on theses and research work.

According to Donald W. Roberts, an insect pathologist at BTI, the use of biological rather than chemical warfare against harmful insects has been around since the late 1800s. Today, the advantages are even greater. No expensive high-tech equipment is necessary. “These products can be produced locally within poorer nations. They don’t have to expend hard currency,” he said.

Another advantage over chemical pesticides is the absence of side effects. “We can select strains of fungus, bacterium, or virus that are species-specific, or strains that will kill many types of pests. Of course, that could mean killing some good guys too, such as bees.” Roberts said.

Either way, there is no harm to crops, wildlife or humans, and that is very significant. “On the whole, it costs about one-third more to use bacteria than chemical insecticide in gypsy moth or spruce budworm control, for example. But the cost is offset by the much greater safety. You don’t get any angry town meetings,” was Roberts’ assessment.

Only two strains of the most widely used bacterium, *Bacillus thuringiensis*, are available commercially in the United States. One is effective against caterpillars, the other against mosquito and black fly larvae which are aquatic.

HARMLESS KILLERS

by Gregory DL Morris ’87

Other strains and species are under serious consideration.

Beyond the United States there are many effective uses of microbial controls. In Brazil, BTI has a project with the government [aided by the United States Agency for International Development] on the subsistence crops of beans and cowpeas. There is a similar program in the Philippines with the International Rice Research Institute.

Microbial control is a boon to underdeveloped nations, but it is employed by more advanced countries as well. “One of the best programs is in the People’s Republic of China, where they treat about two million acres of forest with fungus each year,” said Roberts.

In Canada, the Province of Quebec has banned the use of chemical pesticides in its forests as of 1987, according to Roberts. They will be totally dependent on biological controls.

The Boyce Thompson Institute and a United States Department of Agriculture insect pathology unit at BTI have made a major investment in the worldwide collection of insect pathogens. Over 2,000 varieties of fungi have been collected. Roberts and his colleagues use these to develop newer and more effective applications of microbial control.

On the horizon is genetic engineering. Already many years have gone into more classic genetics, such as breeding. But ahead are carefully designed microbial strains which are more toxic, more specific, and easier to produce quickly in large amounts.

“Some chemical companies are even working on a program to genetically alter plants themselves, or non-parasitic organisms associated with them, to produce insect-specific toxins,” said Roberts.

Microbial controls have been used to protect crops since before the turn of the century. Now research similar to that at Boyce Thompson is going on around the world to carry the method into the next century with ever greater effectiveness. Still, neither side can yet claim victory in the war of the worlds.
"We're a cut above excellence." That is the logo for Cornell Catering, a business which serves only the Cornell community. "We don't want to take any business away from local caterers," said Mary Beth Swan who has been the catering manager of Cornell Catering for over seven years now. "A function must in some way relate to Cornell University, or we won't book it." Cornell-related functions include a number of events such as reunions, club dinners, conference luncheons, dances, barbecues, and even alumni weddings! The size of each function can also vary from as small as a luncheon for ten people to a sit-down dinner for 1,600.

Cornell Catering provides a multitude of services for their clients such as menu planning, linens, silverware, glassware, flowers and a band may be reserved if desired. The food is prepared by a full-time kitchen staff which operates out of the Co-op Dining Program at Robert Purcell Union.

Menu offerings consist of a variety of recipes from the best international restaurants and chefs. "It's important to me to keep up with trends in foods and people's tastes," said Swan. "So far, we have developed a Cajun theme, a Cross-Country Gourmet series, and a "lite" food menu. Swan has experimented with and obtained countless recipes from a total of 42 award-winning restaurants in the United States. When certain themes are decided upon, Swan tries to outfit the function with the appropriate china; and she uniforms her staff to correlate with the theme.

One of the surprising things about this business is that it is mostly student-staffed. Aside from the kitchen unit, the regular staff consists of about 40 students whose number fluctuates with the demand of functions to be catered. These students work as waiters, waitresses, bartenders and truckers, or help with preparation and clean-up. Within this staff are eight to ten student supervisors who are additionally responsible for making sure things are going according to plan. The scheduling of the staff is handled by John Ploetz '86, student manager.

Although trying to work around a student's schedule can be difficult, and local temporary employees are sometimes needed to help cover functions, the employment of a student staff works very well for Cornell Catering. "Generally, the staff really enjoys their work a great deal, most of the student supervisors are highly motivated and think of their jobs as more than just work," said Ploetz.

Assistant catering manager Janis Cummings agrees with Ploetz saying that "Students are often more eager than 'run of the mill' type employees." But Cummings sees other advantages in retaining a student staff. "We're able to pay less, due to work-study programs and subsidies. Our overall output for wages is less than it would be normally if we had to pay all non-student employees," said Cummings. She added that since there is a different line of management, through student supervisors and a student catering manager, "It's a lot easier on us."

The history of Cornell Catering goes back at least 25 years, although no one seems to know exactly how it started. Fran Apgar was its manager in 1962. "It was a very small operation then, working out of Willard Straight Hall," said Apgar. Most of the functions consisted of special dinners which were held at the Straight and a few other select locations on campus. "It wasn't anything really big then," said Apgar.

Today, Cornell Catering is a challenging business. It caters functions throughout campus and even off-campus at such places as the Cornell President's house and Moakley House. Reunions have become a significant affair for Cornell Catering, as well as a major contributor to its revenue. Reunions generally entail the catering of about 78 functions within a four-day period, and a field staff alone of 125 people. "We really extend ourselves to the limit," said Ploetz. Although it is a very hectic time, involving a great amount of effort on everyone's part, this is where Cornell Catering's success seems to shine the brightest.

The success of Cornell Catering may, in part, be attributed to the managing efforts of Swan. Although the business was stable when she assumed her position, its sales were much lower. "We, the staff and myself, have made many changes, but
the previous management had been good,” said Swan. During the past seven years, Cornell Catering has more than quadrupled its annual income. Swan credits this incredible increase to the business’s extended outreach on campus and its consistency in providing quality. This is easily seen by the increased number of repeat customers. Also, firm decisions on Swan’s part have allowed the performance of the catering service to remain at optimum. Such a decision was the slight cutback of reunion functions. “I thought we were maximizing ourselves, so we cut reunion functions back a little so that we could maintain excellence and quality,” said Swan.

Although Swan handles the financial aspects of the business, she is also the main contact for the customer. Swan feels it is essential to have genuine enthusiasm in this business. “When a customer first comes in, that’s what they’re going to see,” she said. In addition, strong communication skills and an understanding of the client’s needs and budget are equally important. “We want to make them feel comfortable,” said Swan, “and involved.” Swan is constantly trying to find out what is going on in both the catering and nutrition field, such as food preparation and how other caterers are doing things. “There are a lot of factors you have to know in order to determine costs,” Swan concluded.

Cornell Catering is a professional organization—and also one of un-ending excitement. Cummings finds that the best thing about this business is that it is different every day. “You never know what’s coming next; you never become bored. It’s fun too; you meet a lot of people,” said Cummings. “Catering is never the same. That’s what makes it interesting,” said Swan. With enthusiasm she added, “This is a large part of my life and I love it!” As a student and catering manager, Ploetz likes the presentation of catering: “Presenting a fine meal as part of an enjoyable evening can be very theatrical—it’s like putting on a show.”

Whether a theatrical production, or simply business, Cornell Catering does more than just appear successful—it is successful, living well up to its logo—“We’re a cut above excellence!”

The table setting at President Rhodes’ house for the music department dinner.
When we were young we impatiently awaited the daily ritual of snacking on cookies and milk. Now when we believe we are more mature, we discover that the adolescent urge has never really left us.

In response to our adult desires, the cookie business in Ithaca is thriving. Leading the bunch are JJ’s Cookies, an entrepreneurial creation of 26-year-old Jeffrey James (J.J.) Solomon ’83.

J.J. has literally built his “cookie empire” from scratch. He grew up in Lansing, N.Y. and attended the School of Hotel Administration. “I kicked around for a year after graduation and I did not know what I was going to do,” he confessed.

J.J. first entertained the idea of selling cookies about two years ago. “I never made a cookie before, but I perceived a need in the market.” So he toyed with several recipes in his grandmother’s kitchen in downtown Ithaca, until he created the ultimate cookie… the J.J.’s Cookie.

The next step was to introduce and market the cookies to local businesses in Ithaca. “I walked into stores,” he said, “and gave my spiel along with a dozen cookies to try.” The response was astounding; within two months the demand was up to 80 dozen a day. Within six months, the Ithaca Times Reader’s Poll determined that the best way to spend fifty cents in Ithaca was on a JJ’s Cookie. In January 1985, he opened JJ’s Cafe, a cookie and sandwich shop, but recently sold it because he thought it was too draining and he said, “My independence did not allow me to delegate authority.”

If you are ever fortunate enough to meet J.J. you will quickly realize that it is his independence as well as his energy and enthusiasm which are the prime ingredients to his success.

Without starting capital, J.J. exchanged his cookies for kitchen space in William Rocco’s Northeast Bagels, located in the Cayuga Mall. He still uses the space and continues to work 12 to 18 hours each day. “I do not even socialize anymore,” he said.

It is J.J.’s hard work that offers us nine varieties of cookies to choose from including the most popular, chocolate chip walnut, as well as double chocolate chip, peanut butter chocolate chip and oatmeal raisin.

Approximately 80 of the 100 dozen cookies that are devoured daily reach the salivating palates of the Cornell community. J.J.’s accounts on campus include such places as the Big Red Barn and Cafe Rhea at the Statler Inn. The largest account, however, is the Alfalfa Room located on the basement floor of Warren Hall in the College of Agriculture and Life Sciences. “They take over 20 dozen a day.”

Since J.J. is a former Cornell student he knows what it takes to satisfy study breaks. Sometimes he tries to duplicate the traditional Straight break by bringing warm cookies over to the Alfalfa Room at nine o’clock in the evening.

Lois Townley, the manager of the Alfalfa Room believes that the freshness of JJ’s Cookies are a key to their success. “They are delicious and different,” she exclaimed, “I eat three a day.”

One ag student, Risa Bernstein ’86 said, “I eat JJ’s Cookies because they are convenient when I am studying in Mann Library and they are better than bagels.” Empty cookie trays speak for the rest of the sweettoothed aggies.

But whether it be aggies, Cornellians or Ithacans, all will be disappointed to learn that the cookie king may pass his crown along with his recipe to some new adventurous individual. Although J.J. is ready to try his luck by opening shop in a cosmopolitan setting such as Boston or Washington, the original JJ’s Cookie will continue to satisfy our palates here in Ithaca.

Jeffrey (J.J.) Solomon is baking J.J.’s cookies in the oven at Northeast Bagels.
Snacking in the... 
alfalfa room

by Judith Zwolak ’87

The Alfalfa Room is a small 'snack bar' amid scores of offices and storage rooms in the basement of Warren Hall. There are no curtains on the windows of this room on the College of Agriculture and Life Sciences quadrangle, nor are there any fancy furnishings. Yet, "There is almost a constant line out the door every weekday from 10:30 a.m. – 2:30 p.m.," according to Darlene Fairman, ’86, Alfalfa Room employee. What is so special about this unremarkable looking little room?

"The Alfalfa Room has a good reputation and the prices are low," said Lois Townley, Willard Straight Hall food service manager. "I think it has a homey feeling; there’s not a sense of commercialism," she added.

The Alfalfa Room, which was established in 1979, offers a variety of conventional food such as bagels, candy and sandwiches. Patrons can also purchase microwave popcorn and pizza which they can warm in a microwave oven supplied by the establishment. In addition, it also has unusual fare such as moon cakes and eggrolls. But perhaps the most popular item in the Alfalfa Room is its coffee.

"I like to go to the Alfalfa Room for the coffee," said Judith Sekellick, ’87, "I think it has extra caffeine," she added.

Sekellick, who said she patronizes the Alfalfa Room about twice a day, claimed, "The Alfalfa Room is convenient because I spend a lot of time in the ag quad, especially in Warren Hall."

Townley also lauded the establishment’s location. "People from Mann Library and the offices in Warren Hall can get food without going outside," she said.

"Three years ago, the Alfalfa Room was not half as popular as it is now," claimed Fairman, an employee for the past three years. "There was no pizza, and fewer bagels and doughnuts three years ago," she added.

Yet the Alfalfa Room is not all business; there is also a program board which deals with the social aspects of the Alfalfa Room. Kathleen Knauf, ’86, is chairperson of the board of approximately eight members.

Knauf said the board is planning small get-togethers to enhance the social function of the Alfalfa Room. Informal "Faculty Chats" with Cornell faculty members will be held about once a month, she said. "The faculty chat is ideal for the Alfalfa Room because it is small and informal," she added.

"The program board is also planning ice cream sprees, "Dime Time" coffee happy hours (ten cent coffee and brownies) and "bagel breaks" with the singing group, the Touchtones, Knauf said.

In order to make the Alfalfa Room fit the needs and desires of its patrons, the program board has asked for suggestions for possible improvements. "Most of the suggestions are for wall hangings, posters and curtains. Some people ask for plants and they want us to update the old picture of the ag quad on the wall," Knauf said. The board is also sponsoring a contest offering a $100 gift certificate to the Campus Store to the person who can design the best logo to replace the current one of a horse chewing on some alfalfa.

Although the variety of food, low prices and different programs make the Alfalfa Room so popular, many patrons feel there is room for improvement.

"They could use a new microwave, another refrigeration unit and more space," said Alisa D. Cagle, ’87. "Also, the smoking section is filthy from ashes," she said.

Shelly Lynn Peet, ’87, agreed. "The cleaning is improving, but it should be better," she said. "We need more room and they should fix the line so that you don’t have to cut back in to get condiments for your coffee," she added.

Townley said expanding the Alfalfa Room is impossible since there is no more space available adjacent to the room. She also said they cannot add more electrical units such as a refrigerator or an extra cash register because they are currently using their maximum electrical output.

Sue Backner, head cashier of the Alfalfa Room, said the long lines and inadequate space problems are a result of the establishment’s popularity. "It would be great if we could have two cashiers and double the size of the room," she said.

Even with all of its drawbacks, this seven-year-old establishment is a very popular ag quad attraction. Emily Kyper, ‘87, a twice-a-day patron, said, "I like the convenience and the prices. It’s also a great place to lounge and relax."
Of chicken necks & shell-less eggs

Everyone nowadays has heard of chicken nuggets and chicken hot dogs. But what of minced fish, or the "naked egg"? Why are these products not as well known to the average consumer? And what connection could these foods have with one another?

The connection is that all these products were developed by researchers on the Cornell campus over the past few decades. Some of those products have proven to be worth the effort expended in development, while others have not.

When Cornell researchers attempt to create a new product, they are usually trying to find uses for discarded animal parts that have nutritional value. By demonstrating that a product with retail potential can be made from what previously had been waste, researchers hope to stimulate the interests of food-producing companies enough for them to want to manufacture the product themselves.

The chicken nugget is an excellent example of Cornell research success. According to Professor Robert C. Baker, ’43, of the Department of Poultry and Avian Sciences, if one were to bite into a chunk of solid chicken breast meat, it would not taste that good. It would be dry and stringy, and lack a certain consistency while being chewed, what Baker calls "mouth-feel."

Although it doesn’t sound as tasty, ground breast meat is more edible than a solid piece of chicken breast. In 1963, Cornell researchers used a process called "meat binding" on coarsely ground breast meat; the resulting pieces of meat had the proper "mouth-feel," and were more appealing to consumers than a nugget from the whole muscle of breast meat.

Chicken nuggets never caught on in the 1960s. It was 20 years before McDonald's made chicken nuggets popular, using similar techniques that Cornell had developed decades before.

Finding out if a product is popular with consumers is a task Cornell researchers carry out after developing a new product. Most new foods that Baker has worked with were test-marketed in selected grocery stores in the upstate New York area. Since no advertising is done before the product is put on the shelves, consumer word-of-mouth must promote the goods. Consumer preference polls and total product sales are used to determine success or failure.

Even experienced researchers cannot judge what the public will like. In 1961 Cornell researchers test-marketed a chicken meat hot dog made from broiler necks. What sounded like a good idea at the time proved to be otherwise. Researchers discovered that people had a psychological barrier to eating a hot dog made from a chicken, despite the fact it tasted the same as a pork or beef hot dog.

Later that same year, Cornell very successfully test-marketed bologna made from chicken meat. Ironically, hot dogs are made almost the same way bologna is, which demonstrates the impossibility of second-guessing the public.

This same public readily accepted chicken chili, showing it did not care what type of meat went into it, just that it tasted like chili. Minced fish, billed as an "economical hamburger," failed to do well with its lower-income target audience, but was strangely successful with people in higher-income families.

One of the most famous products to come out of Cornell, however, was the "naked egg," produced by Cornell marketers in the late 1950s. Working out of a room in the basement of Warren Hall, the researchers developed a process by which a dozen eggs could be packaged without their shells. Each egg was contained in a clear plastic compartment, sealed on top with a cellophane-like plastic.

According to Prof. Dana Goodrich MS ’56, PhD ’58, of the Department of Agricultural Economics, the purpose of this experiment was to see if perfectly good eggs with damaged shells could be recovered to sell at the market price instead of being discounted.

The experiment was apparently successful. Unfortunately, the concept of a dozen shell-less eggs on the retail market died when commercial interests failed to adopt and refine the idea. Goodrich says the basic idea is still put to use in institutional settings with the egg tube, a mass of shell-less eggs packed into a cylinder.

Cornell continues to develop new food products with hope of public acceptance. Prof. Baker says as people look for less fat in their diets, ham and sausage made from chicken will probably join chicken hot dogs and bologna as Cornell success stories. Whatever the outcome, Cornell can be proud for its attempts in ending food waste, and in introducing new food products to the world.

by Bill Schove ’87
HIGH Performance Foods

by D. Scoop Roach '87

Many athletically inclined people have been pushed to the point of exhaustion while participating in a sport. The arms do not want to move and the legs begin to feel like cinder blocks. The whole body is just out of energy. What can you do?

Do you believe that a diet can actually help or hamper an athlete's performance? Food will not perform magic tricks for anyone, but Edward Frongillo Jr. MS ’81 believes there are certain nutritional guidelines an athlete can follow to enhance his athletic performance.

“A daily diet to help athletes reach peak performance consists of 55-61 percent carbohydrates, 27-33 percent fat, and 10-14 percent protein,” said Frongillo, a researcher in the Division of Nutritional Sciences at Cornell University. Maybe most important to an athlete, however, is that he get ample amounts of water.

“The fact of the matter is you can lose fluids far, far faster than you can replace them,” said Frongillo. He also said that you may not know how much water your body actually needs. “If you drink to satisfy your thirst, you actually need quite a bit more than that.” Dr. Ralph Nelson, a professor and director of nutrition research at the Carle Foundation Hospital in Urbana, Illinois, supported this. “To avoid exhaustion, water intake should not just justify thirst, but equal body weight loss.”

The answer to this is to simply drink, drink, drink. As Frongillo states, this is to assure that “the next day you’re at a reasonable hydration level so that when you lose water again through exercise you won’t lose ground.” If you don’t attempt to replace water, the body will progressively lose it until you reach a point where the body can not cool off anymore.

Frongillo said that water should be taken even during a workout if needed, especially during warm weather. “Failure to replenish water as it is lost during exercise can result in heat exhaustion and even death.” A person should drink enough water to maintain a weight loss of two percent or less during and after a workout.

Just as athletes need to continually take in fluids, they also need to continually take in carbohydrates, a major source of energy. The reason for this is that there is a limit to the amount of carbohydrates a person’s body can store, and what is stored can be used up very quickly. For example, “Someone can become carbohydrate depleted within the realm of a long distance run, say a marathon,” said Frongillo. And for those athletes who exercise less, Julie Ann Lickteig, an associate dietetics professor at Cardinal Stritch College in Milwaukee, says three days of two-hour workouts can deplete these stores if a low carbohydrate diet is followed.

Fat is another source of energy during athletic activity. But it is also an obvious problem if one begins storing too much of it. However, athletes may not want to get rid of every ounce of fat. There is an optimum level of fat required for every athlete, according to Dick Brown, former director of Athletics West. “Athletes should observe how much fat they have when they are in peak condition and try to maintain that level.” Brown said that too little fat can impair performance.

“The diet in this country until very recently had more fat in it than was necessary,” said Frongillo. But, that doesn’t mean that fat should be cut out of the diet altogether. Some kinds of fat cannot be made by one’s body and have to be taken in the diet.

Athletes need even less protein than fat. Protein is needed to maintain body tissues. But, according to Frongillo, it isn’t an efficient energy source and there is no physiological evidence that excessive amounts of protein alone increase muscle strength. He said that most of the extra protein in the body isn’t stored, but is instead either converted to carbohydrates and fat, or excreted.

Some athletes need greater amounts of this diet to meet their energy needs. Frongillo is quick to add, however, that this diet is not only for athletes. “The proportions from the three groups are no different from anyone else. Athletes, in particular, would benefit by this kind of diet.”
Consider the following statements:

“All women are created equal. Now, don’t worry, gentlemen, that word woman applies to you as well, of course. It’s simply traditional to use the word woman instead of man. We can’t change the Declaration of Independence, after all.”

“This is a woman-sized job. Of course, we don’t mean to imply that a man couldn’t do it. It’s just that, well, it’s such a big job.”

“Each manager must ask herself . . . Of course, that includes you men, as well: but you know how it is with language. The subject and verb must agree. So we’ll just always use the feminine, okay?”

You have just taken the Munter Turnaround Test for bias-free writing and speaking (MTT). According to Mary Munter, a professor at the Amos Tuck School of Business at Dartmouth College, “To check for biased thinking (which, of course, expresses itself in biased language), substitute woman wherever hoary tradition dictates man in writing and speaking.” (From Without Bias: A Guide Book for Non-discriminatory Communication, International Association of Business Communicators.)

The MTT illustrates a valid point: our communication styles can be vehicles for bias. Indeed, as communication arts senior lecturer Jane E. Hardy ’53 pointed out in her editing course, “There is a lot of sex-biased baggage that societies carry around. Students should be aware of the problems of using sexist language and be sensitized to the ways to avoid it. Implied bias is the hardest thing to find. In writing courses I teach, I cover these issues.”

But it is not only editors who should cast a discerning eye. Where sexism is concerned, we are all potential offenders. As Munter’s examples demonstrate, sex-biased language is used by communicators in business, government, education, mass media and whenever certain individuals are in positions to influence others.

The McGraw-Hill Book Company was the first to set down guidelines for nonsexist writing. In 1974, the National Council of Teachers of English (NCTE) adapted these guidelines in order to help ensure the use of nonsexist language in NCTE publications. The council defined sexism as “words or actions that arbitrarily assign roles or characteristics to people on the basis of sex. Originally used to refer to practices that discriminated against women, the term now includes any usage that unfairly delimits the aspirations or attributes of either sex.”

The term sexist, as used here, refers to use of the language and is not necessarily a reflection on the character of the speaker. “Certainly not everyone who uses sex-biased language intends to exclude women,” noted Professor Sally McConnell-Ginet, Chair of the Department of Modern Languages and Linguistics in the College of Arts and Sciences.

Many times, sex-biased language is used without the conscious intent of the speaker. “For a lot of people it’s a habit they have for years and no matter what their intentions are, they sometimes speak that way,” said McConnell-Ginet.

Sex-biased language takes various forms, from the subtle, “He likes children as much as any woman,” to the blatant, “What a broad!” The guidelines categorize the varied forms of sexist writing. The first is “omission of women.” While the word man originally stood for both men and women, its meaning has come to be so closely associated with the adult male that the generic use of man and other words with masculine markers should be avoided whenever possible. Humanity, human beings or people, for example, can be used for mankind.

Omission of women also exists in occupational terms: Why wait for the mailman in the morning when the mail carrier will come just as soon? And regarding the phrase “grow to manhood,” Hardy stated, “At least half the population can’t do that.”

A controversial issue involving the omission of women is the use of masculine pronouns. Because the English language lacks a generic singular or common-sex pronoun signifying he or she, we have used he, his and himself in the generic sense: “The average American blows his nose in the morning.” Those who argue that the generic he is sexually neutral need to take a look at the evidence that proves otherwise.

A 1982 study conducted by psychologist Janet Shibley Hyde of Denison University of Ohio examined grade school children to observe their interpretations of his, their, and her. After cueing them with one of these forms, she asked them to make up a story about a fictional character. The results: When cued with his, only 12 percent of their stories were about females; with their, 18 percent; with his or her, 42 percent.

Research conducted in 1980 by
Wendy Martyna, Assistant Professor of Psychology at University of California, Santa Cruz, produced similar results. She found that the closest study—McConnell-Ginet noted, however, “In written form, they is of course condemned by your English teacher. But they was used by Shakespeare for precisely that same kind of effect. Jane Austen, George Eliot—there’s a history of distinguished people who have used they.”

A final way in which women are omitted is in those sentences that assume that all readers are men. An example: “Democratic conventiongoers and their wives are invited . . . .”

The guidelines advise writers how to avoid the practice of “demeaning women.” They write, “Men and women should be treated in a parallel manner, whether the description involves jobs, appearance, marital status or titles.” For instance, don’t use the term lady lawyer when lawyer will suffice.

The guidelines also state that “Terms or adjectives which patronize or trivialize women or girls should be avoided, as should sexist suffixes and adjectives dependent on stereotyped masculine or feminine markers.” Thus, use poet, not poetess, female actor, not actress, and murderer, not murderess.

Problems also exist due to sex-role stereotyping. The guidelines state that, in writing, women should be shown participating equally with men, rather than as subordinates. Therefore, the generic terms doctor and nurse should be assumed to include both men and women, and male nurse and woman doctor should be avoided.

To dispel any misconception that only women’s interests are being looked after here, note that sex-role stereotyping does damage in both directions. As Hardy pointed out, “Men who are nurses don’t get equal respect and are looked down upon. Women are not any nicer to men trying to invade their territory than men are to women.”

But really, why all the fuss? After all, people should be able to write whatever they want, right? It depends on how you look at it.

Sex-biased language may carry societal costs. As the guidelines point out, language plays a major role in socialization—it helps teach children their roles and through it children conceptualize their ideas and feelings about themselves and their world. While eliminating sexist language will not eliminate sexist conduct, a language that is freed from sexist usage and assumptions will enable men and women to begin to share more equal, active and caring roles.

And the message is catching on. The days of the stereotypes of “Fun with Dick and Jane” are fading as publishers are becoming increasingly aware of the importance of equal treatment of the sexes. Even the Chicago Manual of Style, the “Bible” of many authors, editors, copywriters and proofreaders, has incorporated material about sexist usage.

Even with the shift toward awareness, sex-neutral language still faces resistance. One reason for the opposition is a perceived awkward-sounding nature of revised words and sentences. To this claim McConnell-Ginet replied, “There’s nothing intrinsically problematic with the form chairperson. The one area where I think there is awkwardness is when you’re using a long string of pronouns, like he or she, him or her, himself or herself. So I sometimes alternate the generic he and she in paragraphs.”

Aside from the aesthetics issue, what else causes the opposition? “At some level it’s what one is used to and it’s the association one has with the forms. Some people don’t like it because they’re not used to it or because they don’t like the politics they associate with its use. They see it as too radical,” said McConnell-Ginet.

How and when will a major shift in language take over? Communication arts senior lecturer Antoinette Wilkinson said, “Language is not rational. It arises out of social needs and social entities. Right now, language doesn’t have forms that we are comfortable with for these ends.”

The controversy over the use of sex-biased language continues. As a communicator, it’s your prerogative to shape your writing as you see fit. The next time you set your pen to paper, however, consider the words of Aldous Huxley:

Words and their meanings—this is the subject I have chosen. Some of you, no doubt, will wonder at my choice; for the subject will strike you as odd and rather silly . . . . This is a most unfortunate attitude. For the fact is that words play an enormous part in our lives and are therefore deserving of the closest study . . . . They are matters of the profoundest ethical significance to every human being.
To fully understand the meaning of being a minority student in the College of Agriculture and Life Sciences one must assess the impact of institutional structures on minority members. This assessment describes the transition to college life which all students experience compounded with the formidable role of prejudice and of being enveloped in a sea of majority students.

The transition from living in a segregated or homologous environment to one where they make up a disproportionately small number of the College’s student body [ten percent], may leave the student in a precarious position. How then does this individual deal with the transition to college life?

Well, one place they may find an answer is in a segment of Student Services, which was implemented in 1972 to take up the question of minority affairs in the College of Agriculture and Life Sciences. Katherine Thompson, the Assistant Coordinator of Student Services and the supervisor of programs concerned with minority affairs, said their major concern is monitoring the student. The office also concerns itself with counseling, recruiting, and admissions. Along with these concerns the office is home to a number of minority organizations including the Minority Undergraduate Veterinarian Association, The Haitian Club, and the Harvest, which is the College’s minority newsletter.

Thompson is excited about the special programs the office offers. These include open houses, phonathons, and various thematic recruitment programs, Thompson said. “Any programs the students feel they need we will provide for them.” The latest of these is a pre-registration mixer which is planned for the first week of pre-registration. The purpose of this program is to get freshmen and sophomores to mix with the upperclassmen and have an exchange of experiences. According to Thompson, “The mixer is a more personal way of taking the Of Course Booklet.” The Of Course Booklet is a booklet composed by the ag college honor society. It provides information on which courses have the best reputations and those less reputable ones. It provides a breakdown of the previous semester’s grades and the work load involved in the course.

The actual workings of the office are performed by student advisors. Student advisors monitor freshmen and sophomores. “They keep in touch with students, give advice and act as a point of reference,” Thompson said.

Ike Jordan, a senior communication arts major in the College of Agriculture and Life Sciences, is the Student Advisor Coordinator. Jordan said, “We [student advisors] act in the same capacity as faculty advisors, however, we have less authority and act on a more personal level. We have gone through the same thing the student is experiencing both socially and academically so we try to help them make a smooth transition to college life.”

Alicia Amaker, a senior in the ag college, added to Jordan’s point that they are available as a reference as well as resource for the student. Amaker said, “We basically do the same thing as regular advisors but we also have insight in helping them from a minority standpoint.” Amaker was quick to add, “Even if problems crop up which are not minority related we are more than willing to offer an open ear and any help we may be able to provide.”

This point was accentuated after speaking to students who agreed with Amaker that the advisors are more than willing to deal with the student on a personal level. Carolyn McDermott, a freshman in the College said, “The office helped me feel comfortable and welcome right away. They have been very supportive and are in constant contact with me to make sure everything in my life is going well both academically and socially.”

It is clearly the needs of the student which are of paramount importance to the advisors. “The function of this office,” Thompson said, “is if we can’t help the student we find out who can.” With this underlying theme in mind, the office helps to ease the transition to college. This enables the students to have enjoyable college careers beginning as early as freshman year.
Future doctors, lawyers, veterinarians and engineers may daydream about world travel, or working abroad, but demanding course requirements often keep them campus-bound. While they may be able to squeeze in a short summer vacation, spending several months in Europe or South America is usually not a viable option.

Or is it? The fledgling International Internship Program, created in 1984, gives pre-professional students an opportunity to work overseas in jobs related to their fields. "I think this can add a very exciting dimension to an education," said Dwight Giles, director of the program. "It offers students a chance to get valuable experience during the summer and also prepares them for the increasingly international professional world in which they will work after graduate school," he said.

The program, which is one of only three in the country, is open to all junior and senior pre-professional students who have at least a 3.0 grade point average and facility in a foreign language. "Students must pay for their airfare but are paid for their work abroad," Giles said, adding that assistance is available through alumni or program stipends in a few instances. He also has applied for federal and private grants to help finance the program.

Since many undergraduates at Cornell enter professions, the program has been enthusiastically received by students. According to Joseph Rossetti, a student in the Johnson Graduate School of Management, "My internship was just hard to beat." Last summer, Rossetti worked in financial management for Veneco, a Venezuelan petrochemical company. He brought back experience as well as "many long-lasting friendships."

Rossetti said the program's biggest drawback was that his salary was not comparable to what it would have been in the United States working for a similar company. "I didn't make much money at all," he said, adding that this consideration may prevent some students from participating in the program.

But the program is not limited to Cornell students. "Foreign students also have the chance to study in America because the program is based on reciprocal exchange agreements with universities abroad," Giles said. If Cornell officials want foreign universities to find jobs for their students, then they have an obligation to return the exchange, he said. Because the program is still developing, reciprocal exchanges have not been fully formalized and must be negotiated each year, he said. "Right now it is still a matching process and no specific job descriptions are available to interested students." Despite the informal methods, about half of the 21 students who have participated in the program have been from foreign countries, Giles said.

According to Yvan Busom, an engineering student from the Universidad Metropolitana in Venezuela, his internship at Cornell has been a learning experience from both a social and educational standpoint. "Living in a fraternity really helped my English and the guys have been great," he said, noting that although he previously read English literature fairly well, he was not used to engaging in everyday conversations.

Busom also said his research taught him about electronics and computers as well as mechanical engineering. "It's been a very nice experience. The only thing I did not like so much was the weather." Busom does not know if he would like to work in the United States or Venezuela, but hopes to attend an American graduate school.

"Exchanges with the Universidad Metropolitana are the program's flagship," Giles said. Agreements with other universities, however, are also in the works. Several students may travel to Germany and Sweden this summer and program organizers are also trying to develop opportunities in France, Japan, Mexico and England.

Cornell alumni have been instrumental in making the program a success, Giles said. Foreign graduates have developed connections overseas and American alumni have developed internships in this country for foreign students, he said.

Twenty-five students have already applied to the program this year. Although it is too late to submit applications for internships this summer, students can apply until December for internships in 1987, Giles said.

So pre-professional students can stop daydreaming and start planning for their summers abroad. The rest of us will have to confine our thoughts to American summer pastimes.
Keeping track of deer populations can help farmers and gardeners.

The man drove down the rural highway late one spring evening. Tired from his long travels, he did not notice the brief flash of reflected light from two darting eyes on the side of the road ahead. Suddenly, a large tan form lunged into the path of his car. The man tried to brake and swerve, but it was too late—he had hit a deer.

Such a scene can be common in an area heavily populated by deer. While deer are seen by most people as passive and harmless animals, unchecked populations can cause great damage. Not only is the risk of auto accidents higher, but the animals will often begin grazing—and perhaps depleting—agricultural crops.

Because of this, deer populations have to be carefully managed. If not hunted, a population can double in three or four years. However, since there is also an interest in preventing over-hunting and depletion, wildlife managers have been forced to spend a great deal of time and money to assess the deer management needs of a given area.

Until now—a computer program known as “Deer CAMP,” or “Deer Computer-Assisted Management Program,” has been developed to bring new precision to the management of whitetail deer. Its creator is Aaron N. Moen, a professor in the Department of Natural Resources of Cornell University’s College of Agriculture and Life Sciences. In designing the program, Moen was assisted by his son, Ronald A. Moen ’84 and C.W. Severinghaus ’39, a retired biologist.

"Between us, we have 75 years of experience in working with deer," Professor Moen explained. "We’ve accumulated extensive knowledge of deer population patterns and have used it to create this program to convey the information to others. 'Deer CAMP' is now available to anyone interested in learning more about deer biology and population dynamics. People who don’t know anything about it would begin learning as soon as they start running the computer."

Moen said deer populations are difficult to accurately determine. "Without computers, biologists used to have to look at key indicators, such as bucks killed during hunting season, and watch for trends in the number of deer seen, among other things." He explained that other computer management programs based management decisions on deer deaths due to hunting, predators and car accidents. Deer CAMP, however, takes into account factors such as deer biology, water area, incidences of poaching, and health of the deer.

"A person can think of it as a computer program based on proportions," Moen explained. He gave an example: "Suppose you weigh 150 pounds. I would guess you’re under 6’2", and that your stride is less than 42 inches. The same thing can be done with deer. For instance, winter fawn mortality can be calculated because the yearling frequency during hunting reflects the fawn mortality of the preceding winter. If the frequency is lower than expected, some of the fawns must not have made it through the winter."

Moen’s program uses available information to track an area’s deer population. The person using the program can base a year’s deer harvest on the computer’s calculations, and come up with precise calculations based on bits of known evidence.

"The equations in the program are based on the biology of deer and their relationship to their range," Moen said. "We put the biology of the animal into the computer and can then generate over 1,000 items of data from about six critical inputs. It takes about three minutes to run it for a year’s worth of data."

Moen said once the proper population for a given area is determined, measures can be taken to reach that goal. "The government can take several steps, such as issuing only a certain number of hunting licenses to determine how many deer you want harvested. Moving deer is impractical—they basically have to be controlled by hunting, but at least with the computer you can understand more clearly the dynamics of the population. 'Deer CAMP' is important as a learning tool as well as a management tool."

"I think it's a very innovative program. We don't just tally how many have been killed—we use that and other data to predict the population density. It's a very powerful predictive tool."
Appointments

Dr. Edward L. Bernays 'T2 has been appointed chairman of a newly formed Public Relations Advisory Committee at the Boston University College of Communication.

Dr. Bernays, widely regarded as the "Father of Modern Public Relations," is the author of "Crystallizing Public Opinion," the book which laid down the principles, practices and ethics of the profession.

Carl F. Gortzig '52 has been reappointed chairman of the Cornell University Department of Floriculture and Ornamental Horticulture. He has held the position since 1975.

In addition to his department leadership responsibilities, Gortzig teaches the introductory course in floriculture and is involved in the floriculture extension program, which provides educational activities and technical support for the floriculture industry.

Dairy Leaders Honored

A dairy farmer and an executive with a New York state dairy cooperative have been honored by Cornell for their contributions to the state's dairy industry and Cornell's dairy research.

NELVIN B. EMPEТ of Freeville and WILLIAM T. UNDERWOOD of Tully received the Awards of Merit from the Department of Animal Science in the New York State College of Agriculture and Life Sciences.

Empet is general manager and chief executive officer of the New York Dairy Herd Improvement Cooperative. The cooperative provides dairy herd improvement records and farm management information to more than 7800 farmers.

Empet maintains a close working relationship with the Dairy Records Processing Laboratory at Cornell, and is also a member of the Advisory Council for Cornell's Department of Animal Science.

Underwood, a lifetime farmer, is the former president of the Cortland County Holstein Club and is chairman of the New York Dairy Farm Beautification Program Inc.

Underwood has worked closely with faculty in the College of Agriculture and Life Sciences on various projects, including studies that evaluated the cost of dairy advertising.

Geneva Station Updates

James E. Hunter has been named acting director of the New York State Agriculture Experiment Station, Geneva. As acting director, Hunter assumes responsibility for the research and extension programs being carried out in the laboratories and more than 700 acres of Station farmland.

The Station conducts research on the production and processing of fruits and vegetables.

Susan B. Rodriguez has been named assistant professor of food microbiology at Geneva Station. She will be responsible for conducting research and extension programs in the Department of Food Science and Technology.

Rodriguez comes to the Station from Massey University in New Zealand where she was a postdoctoral fellow involved in wine yeast research.

Cornell has established a Technology Transfer Center that will help New York state's highway superintendents and other officials keep up with technical information about highway construction and maintenance.

Supported by a two-year grant from the New York State Department of Transportation, the center serves as New York state's only information clearinghouse on highway technology.

"This is a major boost in our efforts to keep New York's roadways in good shape," said Lynne H. Irwin, who heads this newly established center. A highway research engineer, Irwin is an associate professor of agricultural engineering and director of the Local Roads Program in the NYS College of Agriculture and Life Sciences at Cornell.

The Technology Transfer Center is now stepping up efforts to aid New York's highway officials through a series of educational activities this year. Among these are a series of one-day training seminars focusing on technical topics vital to the local highway agencies, and the establishment of a toll-free telephone number at Cornell for highway officials who request technical information and literature on highway technology.

Nomination

Dr. Donald W. Roberts has been nominated by the Eastern Branch of the Entomological Society of America (ESA) for the Society's CIBA-GEIGY Recognition Award. Roberts is a pathologist at Boyce Thompson Institute for Plant Research. His major research interest involves fungi which prey on insects, fungal toxins and the use of microbes to control insect pests.

Roberts is involved in ongoing projects for control of insect pests in Brazil and the Philippines. Most recently, he was awarded a Fulbright Senior Research Fellowship to conduct research in Australia.

Dr. Donald W. Roberts has published over 90 research papers.
Lighting the Way
by Paul Weinberg ’87

It's 11:30 p.m. A student has just left the library and is pondering the walk home to his room. The night is cold and foggy, as usual, but for some reason the thought of that long trek across campus and down the hill seems especially unappetizing tonight. The student swallows that lump in his throat, and goes out the library door. Half-way across the ag quad, he hears a noise behind him. He turns around but there doesn’t seem to be anyone there. It's probably just his mind playing tricks on him. Still . . . why take the risk? He walks back to the library and calls 255-7373. Now he can relax. The “Blue Light” will see him home safely tonight.

The Blue Light Escort Service was founded by Nick Theodore ’85 and Tim Norris ’85 in 1982, with the cooperation of Cornell University’s Department of Public Safety. Theodore’s younger brother Mark, a junior who transferred from Boston University a year ago, now heads the operation, and is the student service aide in charge of all students who work for public safety. The escort service is available from 9 p.m. to 1 a.m., Sunday through Thursday.

There are 40 to 50 dispatchers and escorts currently with “Blue Light”, which is not to be confused with the Blue Light bus. Each escort puts in two hours a week, while “Blue Light” dispatchers work four hours a week. About one-third of the escorts are women, and most of the dispatchers are women, too. Mark Theodore said that most student volunteers sign up at the “Blue Light” information table at registration as freshmen, and that many stay with the service throughout their Cornell years. Currently, approximately ten escorts are enrolled in the College of Agriculture and Life Sciences.

Dispatchers are trained in radio procedure, while escorts go through a more extensive program that includes rape awareness training, escorting procedure training and briefings on how to handle “crimes-in-progress.” “In general, we tell our people to report any criminal acts they witness, but not to get involved in a confrontation,” Theodore said.

Escort teams operate in pairs, and are equipped with a radio. “The two functions of the teams are to escort students from door-to-door and to keep their eyes open for any suspicious activities,” Theodore said. The Cornell campus is divided into four sections in the “Blue Light” scheme, and each pair of escorts is assigned one of the sectors as a “beat.” The sectors are Collegetown, the arts quad, the ag quad, and north campus. Since there are often only two escort teams on duty, it is sometimes necessary to have each pair cover two sectors.

The dispatchers receive three to five calls a night, Theodore said. However, the number of people escorted is often as high as ten an evening because the escort teams are encouraged to ask people they see walking alone if they would like an escort. “Some of our more aggressive teams get as many as ten students a night by asking people,” Theodore added. He said that the reason over 99 percent of the escortees are female is that “women have a special fear of walking alone.”

“There's one girl that we escort home from the library every night,” Theodore said. “But I think a lot of people don’t call for escorts either because they don’t realize this service is free and available to them, or because they are embarrassed and feel like they are burdening us by asking. That is why we have our escorts do the asking sometimes.”

Theodore said that the Boston University campus isn’t nearly as safe as Cornell’s. “This year has been very calm,” he said, “and the escorts have not reported any incidents.” He noted that the only incidents reported last year were of vandals spraypainting buildings.

However, Theodore is very quick to point out that Cornell is not the safest campus in the nation either. “There are plenty of dark areas of campus that invite trouble,” he said. Theodore’s advice to students is the old standby, “better safe than sorry.” After all, with the “Blue Light” around, why walk alone?

Dispatcher, Sue Quenzler, answers the call of a student who needs an escort.
FUN AND GAMES
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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853.

Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy '53, Linda Myers '64.
Meet Them at the Slopes

Winter in Ithaca can be quite dreary, but many Cornellians do not seem to mind. A swift trip down a glistening, snow-covered slope can banish winter blues in less time than it takes to pull the covers over your head.

Cornell has many students who ski recreationally as well as competitively for the University ski team and ski club. Gary James, advisor and coach of Cornell's ski team, said the goal of the ski team is to allow undergraduates to have the opportunity to compete on an intercollegiate level. According to James, there are 45 male members and 30 female members on the men's and women's ski teams, respectively.

The teams compete in the Eastern Intercollegiate Ski Association, which is deemed the top skiing division in the east. Members race throughout the season in seven races featuring giant slalom, slalom, cross-country relay and individual cross-country categories. Twelve men and twelve women travel and compete in each of these races or "carnivals", which are hosted at various universities in the east. "Unfortunately, Cornell does not host a carnival, but we hope to run one in the near future," James said.

The competitive season for skiing begins in early January and ends in early March. However, training for this team begins as early as September. "We begin dry-land training in the fall and this is our base for conditioning," James said. This land training consists of running, rollerskating, soccer and Nautilus. These circuit routines or flexibility exercises take place until the first sight of man-made snow, which usually is spotted around Thanksgiving.

James, who is the cross-country coach, is aided by a downhill (alpine) technical coach during training season. The cross-country (nordic) team travels to Lake Placid to train and the alpine team trains at Greek Peak.

Brad Randall '87, captain of the ski team, has been racing for the past three years. "I first became interested in the team during my freshman year when I saw literature about it at registration," he said. Randall participated in races at University of Vermont, Dartmouth College, Middlebury College and University of New Hampshire last year.

The Cornell Ski Club satisfies students who do not want to ski competitively. "We have 272 members and are a loosely run organization comprised of students who possess a strong desire to get out onto the mountain and ski," said Richard Chrenko '87, incoming president of the ski club.

The club holds membership drives in the fall and spring and in addition, has had trips during winter and spring breaks. "This year we went to Jackson Hole, Wyoming and Killington, Vermont," Chrenko said. The club frequently takes weekend trips to Sugarbush, and also skis at Greek Peak.

Maureen McCloy '86, a member of the ski club, joined last year and has participated in many events. "We do a great amount of skiing as well as socializing," McCloy said. "There are ski movies, pizza parties and general meetings where everyone is able to discuss their interest in the sport."

With winter just around the corner, Cornell students should think twice about criticizing Ithaca's abundance of snow. And Cornell faculty and alumni who feel left out should consider meeting them at the slopes.

by Corinne Renée Hermann '86
Spending hours each day meticulously working a field is hardly unheard of. But to then allow people—some from hundreds of miles away—to come and trample the greenery into the ground, instead of having it harvested, might sound a bit odd. There are indeed people like that: they are the groundskeepers of the playing fields across the country.

Groundskeeping at Cornell University’s athletic fields—Upper Alumni, Hoy, Newman, Jessup and Schoellkopf—is the responsibility of Tom Double, assistant athletic director and head of operations and facilities. According to him, maintaining an athletic field is very different from lawn or links. “You’ve got a short growing season, and constant high use. And we have to do all our maintenance around the teams.”

As soon as the snows are off the fields, they are groomed for the spring growing season. Aeration (poking small holes into the turf) allows better penetration of water, air, and nutrients. It also reduces compaction. Dragging and raking breaks up a clogged surface for the seeding, fertilizing, and irrigation to follow. The process is repeated in late fall.

The cool-season grasses that are used (varieties of perennial ryegrass and Kentucky bluegrass) are well suited for the climate and rainfall of Ithaca. But the soil is another matter.

According to Martin Petrovic, associate professor of turfgrass science at the College of Agriculture and Life Sciences, the clay-like soil of Ithaca makes growing tough and drainage a major problem. “Even if they had tried, they could not have designed a worse soil for athletic fields, especially on Upper Alumni Field.” Petrovic said.

All this magnifies the perpetual pounding the grass is subjected to. “A turf field is a community of plants. You strive for different grasses so whatever is thrown at them, something will survive,” Petrovic said.

Some of the qualities Petrovic studies, and Double seeks are resistance to disease, insects, and extremes of temperature and moisture; and recuperative potential—the ability to regrow when damaged.

Some grasses grow by sending out stems: stolons above the ground, rhizomes below. The advantage is that torn-up areas do not have to be re-seeded or resodded, just filled in. Then, with luck, the grass will grow back in of its own accord.

Nonetheless, “With such a high density of use, there is no way the fields aren’t going to get torn up.” Double said. His principal difficulty is that cool-season grasses want to go dormant in the summer as they do in the winter. Double and his staff (an assistant, four full-time groundsmen, and student workers) have to keep the grass growing to repair the damage of spring usage and prepare for the fall onslaught.

Warm-season grasses such as crab grass or Bermuda grass, would grow all summer, but would never live through the brutal Ithaca winter.

The alternative is artificial turf. The carpet on Schoellkopf Field allows for almost continuous use, but is by no means indestructible. “The current surface will have to be replaced in two or three years—you get about eight to ten years per carpet. Replacement will run about $1 million,” Double said.

Turfgrass has several advantages over artificial substitutes. More “give” and better traction usually lead to fewer injuries. Furthermore, Petrovic cited a study wherein the temperature one foot above a grass field was recorded at 75°F on an 85°F day. The temperature a foot above an artificial turf was 130°F! The transpiration by the grass kept things cool, while the carpet just bounced the heat right back.

Can Double and his opposite numbers around the country have the best of both worlds? Not yet, but according to Petrovic, development of ever hardier plants is accelerating. Once it was only at universities, but intense competition within the turfgrass industry and from makers of artificial turf has led to rapid gains in quality and resiliency at the retail level, said Petrovic. “We’re even starting to look at genetic engineering,” he added.

Only 6,000 acres of sod is produced in New York, not even enough to satisfy its own demands. So turfgrass is at a premium in the Empire State. The trick is simply to use plants with all the right attributes, then get them to grow when they are not supposed to, and despite being torn up, trampled on, and rolled in.
“Are they real, daddy?” the little girl asked her father as they looked over the rows of trees in front of them. Her father assured her they were . . . but even he had to remind himself occasionally that the trees in the room weren’t from a Lionel train set. Many of them were only a few inches tall.

The man and his daughter were attending a demonstration of bonsai, the art of growing potted plants in miniature, given in April 1986 by the Cornell Plantations. The program, “Bonsai for Beginners,” was held in the Plantations’ headquarters building, in cooperation with the Finger Lakes Bonsai Society.

Within the last ten years bonsai has experienced a sharp rise in American popularity. Only 50 years ago, few outside of Japan even knew of it. Today, however, plant growers have given it world-wide recognition.

The history of bonsai cultivation, or “training,” is very long, going back several hundred years—at least prior to the 17th century. Literally translated, the word bonsai means “tray planting,” but the word itself appears in Japanese writings only within the past century. Bonsai, as practiced today in both America and Japan, has been in existence only within the last 150 years.

Many of the early bonsai were merely dwarfed trees found in the wild. Due to adverse growing conditions, such as rocky crevices, wet bogs and perpendicular cliffs, the trees grew only a few feet high. While some of the modern bonsai are still found growing naturally, most of bonsai’s habitats have been picked clean by professional collectors.

Today the majority are developed from trees grown in nurseries. The bonsai are planted in very wide, shallow pots that leave little space for root development and restrain the development of foliage. Several months later a copper wire is fastened to the trunk to bow it downward. Another wire is wrapped around the branches to shape them. Over a period of years, the tree is shaped through careful pinching of certain tip buds and shortening or removing of undesired strong shoots. Gradually, the tree begins to look more and more natural.

If it takes so many years to produce a natural looking plant, why do so many people enjoy collecting and working with bonsai? Everyone seems to agree it’s the artistic quality of the small trees. “They’re beautiful” explained Robert Kiborsky, a visitor to the Cornell Plantations. “The fact that they’re created makes them better than house plants. I don’t work with bonsai myself, but my wife and I love to look at them. They’re great works of art.”

As the art of bonsai becomes more popular in the United States, expect to see miniature forests crop up all over. Who would have thought—at after all the cars, toys and radios shipped over here—that another leading Japanese export may soon be . . . little trees?
THE ART OF TEACHING

by Lorene Lamothe '87

When Prof. George Posner's students set out for "class" they head in many different directions.

John H. Huckans '85 drives to MacCormick School, a maximum security correctional facility for male teenagers who have committed crimes such as murder, rape and armed robbery or have been expelled from other facilities. Huckans tutors seven of these students so they can earn high school diplomas before they are released.

Debra Schneider '89 heads for Robert Purcell Union daycare center on north campus where she helps manage 20 adventurous pre-schoolers.

Michael J. Goff '86 also stays on campus, but teaches a more advanced segment of the Cornell population. He spends about 12 hours a week working as a teaching assistant for Introduction to Electrical Properties of Materials, a course in the engineering school.

Posner's course—The Art of Teaching—offers students an opportunity to teach almost any subject to students of any age in almost any setting. "Generally people have a narrow view of what teaching is all about. This course tries to expand that view," he said. Teaching can mean instructing senior citizens in pottery, leading a youth group on weekend excursions, managing preschoolers or helping high school students learn math and science, according to Posner.

Posner developed the course in 1975 to give interested students a taste of teaching. At the time, he was teaching an issues-oriented education class and found many students were enrolled because they were considering teaching as a career, not because they were particularly interested in the focus of the course. In order to provide students with a better idea of what teaching was like, he created The Art of Teaching.

The class includes a weekly lecture and laboratory section but "Fieldwork is without a question the most important part of the course. It is the point of departure for everything else the class does," Posner said.

"Generally people have a narrow view of what teaching is all about"

Prof. George Posner

Many of the 50 students enrolled in the 1986 course agreed with this statement. According to Linda Reymet '86, "The fieldwork got me to think there is a lot more behind teaching than meets the eye. I have a lot more respect for teachers now." Reymet is involved in a reciprocal teaching arrangement—she teaches a graduate student Spanish and learns Greek from him at the same time. Although Reymet is not sure what she plans to do after college, she said she "did not dislike anything about the fieldwork" and definitely considers teaching an option now.

Schneider said she learned a great deal from observing the two teachers she worked with at the daycare center. "I picked up on a lot of little techniques," she said, adding that she hopes she can use them as a social worker, her intended career.

Goff also heralded his fieldwork as the best part of the course. "It was a challenge to get students to stay awake. The material is very dry if you are not into it." Goff admitted, however, that he experienced some degree of success as a teaching assistant. "I think I got people in the back row to wake up." Although Goff plans to go into engineering, he said the course helped him in interviews with potential employers. Managers were impressed because they realize the importance of good communication skills, he said. "Teaching skills really help because engineers are always explaining things about their work to people."

Goff also liked the course because it was completely different from his other classes in the engineering school. "Most of my courses are required but I took (The Art of Teaching) just for myself. It's been a lot more fun and I am getting a lot more out of it," he said.

Posner said Goff's feelings are fairly common. Many students have had jobs before, but the fieldwork is the first time students are totally responsible for helping someone in a certain area. "When people are involved in 'real,' rather than classroom situations, something very exciting can happen," he said.

One example Posner cited involves a former Cornell football player who became so attached to the child he worked with that he brought the boy home with him for the summer. During the remainder of the student's college years, the two stayed in touch and are still friends, Posner said. "The course has made some things happen that
really made a difference in people's lives and that gives me pleasure," he said.

One benefit students mention is learning to solve problems that crop up throughout the semester. Two major problems students attempt to come to terms with involve the role of a teacher and discipline. Students don't know if they should act as a friend or an authority toward learners and they are not sure how to control their "excitement and energy," Posner said. Many students tried to work out these problems by writing about and analyzing their experiences in fieldwork logs; some concluded educators should set down rules of conduct immediately and stick to them, others felt they should learn to know students as individuals before they began teaching and others felt a teacher should find a balance.

Huckans said another problem he experienced was keeping students' interest in the subject matter. Although he described two of his students at MacCormick as "highly motivated," he said all of them lost concentration at times. Discipline can also cause problems if it is not handled correctly, he said. At MacCormick, students are well aware of the consequences of misbehavior in school and there are not many problems, he said, "When they return to their living units they are much more likely to revert to previous forms of behavior, such as always wanting to beat up someone."

According to Posner, some students experience more than fleeting frustrations. "It's not all sunshine and light—one or two students each semester have a negative experience," he said. Because students must choose their teaching assignment at the beginning of the semester, they may not realize a situation is truly bad until it is too late, he said.

Students who arrange assignments with people who really need help, such as prisoners, take on a greater risk of failure than most students, Posner said. The benefits to both people involved can be tremendous but things may not work out, he said, citing a fieldwork experience that ended half way through the semester because the teenager involved was arrested again and taken to a correctional facility in Binghamton. He noted, however, that the teenager and the Cornell student have kept in touch despite the separation.

The few negative experiences have not tainted Posner's optimism about field-oriented courses. "More courses should consider how the material taught in class can be used by students now. Rather than deferring the opportunity to apply academic learning for four years or more, students should be able to see the purpose of what they study," he said.
Everybody has done it at least once; students and working people do a lot of it. They do it wearing business suits, jeans or skirts, carrying a knapsack or a briefcase. They do it wearing sneakers, loafers, and even high heels!

At almost every time, somewhere on campus, someone is speedwalking. Such a person is easy to spot, because speedwalkers have a characteristic stance. The torso is canted forward, arms are swinging. The knapsack, if any, is worn over both shoulders. Without fail, there is a look of purpose and vague worry on the face.

This worry makes some sense, since speedwalking is generally done when the time needed to get there is longer than the time between now and when the walker has to be there. As an example, the appointment is at 9:05 and it is 9:00 and the walker has five blocks left to traverse.

Believe it or not, speedwalking, or racewalking, is an official sport with two Olympic events. But most Cornellians seem to be practicing a less rigid form of the same sport. Laurence Miller '86 explained that in Olympic racewalking, "You walk really fast and move your arms a lot but don't break into a run." However, he said, he never walks to class quite that way. "I'd look like a fool if I did that," he said.

In general, students at Cornell seem to do a lot of walking, a fair amount of it speedwalking. Driving, of course, is rarely an option and the buses may or may not run at the needed times. "Undergraduates don't have much choice," said Caryl Greenfield, a graduate student in immunology. Leah Rosenthal '88 agreed. "Cornell students definitely walk a lot, especially aggies because they have to walk all the way to the ag quad," she said. "In fact, I thought I might not take gym next year because I get enough exercise walking around here."

As it happens, brisk walking is good aerobic exercise, but most students probably do not get their exercise this way intentionally. "If people do walk in the real world it would be more a conscious decision than lack of choice," Greenfield said. Speedwalking uses up about 300 kilocalories of energy per hour, so it would take about seven hours of brisk walking a week to make up all the exercise most nutritionists recommend. However, the exercise value is there, meaning that speedwalking allows someone to both sleep late and still exercise before the day begins.

How rapidly do people go? It depends on length of leg, type of shoe (it is hard to speedwalk when a blister is developing on the knuckle of one's big toe), how late the walker is and the grade of the route. All of this walking is good for the heart and legs. "Most people have good muscle tone on this campus," Miller said. He related this phenomenon to walking. "It is certainly for no other reason. We don't exercise enough at Cornell because there is so much work," he added.

Just as with any sport, some hazards are the price of the benefits. One is damage to the feet by blisters. This is caused by wearing the wrong shoes. Miller said that where he'll walk on a given day affects how he dresses. "I will sometimes not put on my penny loafers if I have to come up to the vet tower because it would hurt my feet," he said.

Another hazard is in the social world. Unlike more formal kinds of exercise, the circumstances of speedwalking often preclude an after-workout shower. "I used to go to calculus in the morning and I was always late. By the time I got there, you couldn't tell I had showered in the morning because I walked so fast and sweated so much," Rosenthal said. In addition, it often takes a few minutes to calm down enough to take notes after such a workout.

Some people, of course, eschew this sport altogether. They prefer to get up five minutes earlier and walk leisurely. Or, they have large time gaps between classes. "You see some people rushing up the hill, some people walking quickly and others just taking in the sun," Rosenthal said. These people provide the most problematic obstacle for speedwalkers. They often walk in groups and take up the whole sidewalk, causing the hurrying person to step into the grass (snow, mud) in order to get by. The other big problem is earthworms. Ithacans are an ecologically aware bunch and don't want to squish earthworms on the Rocksports. But it is hard to avoid the critters when one is moving so rapidly.

However, speedwalking retains its proponents for several reasons: it is cheap, does not depend on fancy equipment and is a great way to warm up in the winter. Best yet, increased prowess in the sport means more time free to spend snuggled under the covers.

Since it is human nature to be late, people will always be speedwalking. But some small consolation may exist in the knowledge that those aching calves and blisters contribute to serious exercise.

by Mollie Zuckerman '86
A Cornell Great Remembered

JOHN MOAKLEY

by D. Scoop Roach '87

"His integrity was of iron. His intolerance of show was towering. His dedication to duty was relentless. This was a simple man. And this was an honorable man. Is this not greatness?"

The statement, spoken in 1955 by Robert J. Kane '36, then Cornell athletic director, was honoring John Francis Moakley, track and field coach of 50 years at Cornell University. Truer words may never be spoken again.

Moakley (1864–1955) undoubtedly was one of the nation's best track coaches. When he took over the reins of Cornell track in 1899, he took over a young team struggling for recognition. When his reign ended in 1949, Moakley had created a national track power and instilled a winning tradition that is still alive today. Partly for this reason some proclaimed him "The Miracle Man" of Cornell track.

The miracle man perceived patience as the one quality any coach must possess in order to be successful. This explains why he never cut any athlete from his team. Moakley gave mediocre athletes a chance to blossom. "It certainly gives one a feeling of great satisfaction," he once said, "to take a man with little or no experience, or one with a defective style, work with him day in and day out and finally see him blossom into an intercollegiate (IC4A) point winner, or perhaps a champion."

His patience always paid off, as he produced many champions from unknowns. For example, Henry Russel '26, 1928 Olympic 400-meter relay champion, never ran track until he came to Cornell. Similarly, former American two-mile record holder Joe Mangan '34 did not win a race until his junior year.

Developing John Paul Jones '13 into an athlete good enough to be considered "The greatest distance runner in the world" was one of his greater accomplishments. "When Jones came to Cornell," Moakley reflected, "A vision flashed before my eyes—a vision of him as a finished runner. And John and I plugged away for four long years to make that vision come true." John had won three intercollegiate cross country titles and held the world's record in the one-mile run by the time he graduated.

John Moakley discussed the vision he used to see in his athletes. "Many times a coach forms a mental picture of a runner as he thinks he ought to be, and then works with him to bring him up to that perfection." He said this satisfaction of seeing athletes blossom made his coaching profession enjoyable.

Moakley brought out the best in all his athletes, which is why he compiled an excellent winning record. Some of his monumental achievements include:

- Winning 17 IC4A championships in cross country, including 10 consecutive from 1902–11.
- Producing 86 IC4A individual champions in cross country and track. He produced a winner in every event except the javelin.
- Producing 25 Olympians, including five gold medal winners.
- Coaching the 1920 Olympic team. The team collected 22 medals, seven of them gold.

Winning did create a slight problem for Moakley. Along with trying to ward off other teams gunning for Cornell, he also had to maintain a will to win among his athletes. Moakley realized this in 1908 when he said, "Continued supremacy in any branch of athletics is liable to lead to carelessness among the members of a team. If such a spirit can be developed here that each varsity man is expected to do better work in athletics each year and not rest on the laurels of one or two victories, we are bound to be among the leaders in all branches of sport."

Thus, all Moakley wanted from his athletes was spirit and will. "We (Cornell Track) want more men who are willing to persevere and work conscientiously to the end, and fewer who are content to stand by to applaud the results of others." If his athletes granted him that request, Moakley could do the rest.

Doing the rest, producing the champions, was the job Moakley loved, and what made him loved. It was once written that "men who have been under his tutelage learn to value his friendship more than his training."

The tribute made by John R. Bangs '21, long time assistant to Moakley, summed it up best: "I have literally sat at the feet of the master."
As the batter steps up to the plate, the roar of the crowd softens to a hush. Then, abruptly, a harsh voice breaks the silence, "Strike out the little runt." The Little Leaguer strikes out only to hear a barrage of insults from the crowd. "I'll get a hit next time," he insists to himself. "I'll show them."

At a time when sport is at the height of its popularity it is interesting to query which societal values it is advancing to young athletes across the nation. The scenario above reflects the attitudes of many adults who are involved with Little League teams.

Dr. Daniel P. Wood reflected on individuals losing sight of the educative and character-building qualities connected with sport. In Wood's 1977 thesis entitled Consequences and Values of Sports Experiences, for Cornell University faculty, he said, "Our compulsion with winning and 'success' as a dominant American ideology is the main reason why the consequences of sports participation are often different from what the ideology says they should be. Our national psyche needs to be bolstered by constant reminders that 'we are Number One.' This sentiment infiltrates sports competition so completely that abuses of sport are common even at the pre-teenage level."

"Winning isn't everything. It's the only thing." This statement is attributed to the late Vince Lombardi, coach of the Green Bay Packers during the glory era of the 1960s. The Lombardi image of a non-nonsense boss who demands hard work and total obedience to his authority, while acceptable under the professional pressure to win, is hardly an appropriate model for most volunteer, part-time and amateur coaches. Yet we only have to watch a local little league baseball game or a Y.M.C.A. youth basketball game to see firsthand what the Lombardi philosophy may lead to. Coaches and parents on the sidelines exhort their charges to "be tough" and "pay the price."

Is this an educational character-building experience for the kids? An increasing number of youth programs are recognizing that in this form it is not. According to Wood, "Many youth programs are insisting on rules that everybody who tries out is placed on a team and must play so many minutes or innings of each game."

The compulsion to win in high school tone of this purpose Athletic Director Laing Kennedy supports the motto, "Cornell University Athletics—A Tradition to Cheer About." Many feel that is the way it should be. College sports have all the qualities of money-making, made-for-TV excitement which brings intercollegiate competition to the intense level on which it is performed. Maybe at this point in the program we should become more interested in winning and less so in the educative capacity of sport.

Misusing sport participation by overlooking its educative capacity is an injustice to college athletes as it is to high school students and pre-teens. There are invaluable educative and emotional experiences which can be drawn from college sport participation. It is in many cases up to the coaching staffs to facilitate these processes. Wins and losses do not necessarily make a season successful. There are other aspects of team play which must be considered when assessing a season.

Kaycee Krump, Cornell Women's Basketball assistant coach put it nicely when she said, "I play to win and I coach to win but in athletics I also see the opportunity to teach players things which can be employed in other aspects of their lives. Pushing kids and teaching them to perform at their best shows them there are no limits to what they can accomplish when they put their minds to it." There is a happy medium coaches on each of the aforementioned levels are operating on. Striving for a winning season seems a realistic goal for any team. Yet hopefully coaches, academic institutions and athletic departments see the necessity to incorporate the ideology of sport participation as an educational character-building tool as well.
Cornell's Intramural Sports Program by Melissa Mitchell '86

Sporting Success

"We’re definitely the best in the Ivy League, and one of the best in nation," said Maria West of Cornell’s Intramural Sports Program, which offers a total of 23 recreational sports to the Cornell community. West, the director of Intramurals, has been involved with the program since 1966 and believes the program to be getting better every year.

The history of the Intramural Sports Program goes back to at least 1946. Until women were allowed to participate in 1974, the program was only open to men. Today, participants have the option to play on all-men, all-women or co-ed teams in almost every sport the program has to offer.

The program is composed of different divisions: dorm, fraternity, women’s, independent, graduate and co-ed. "There’s a place for everyone somewhere if they want to play a sport," said West. The program is basically open to everyone currently related to Cornell, although there are eligibility requirements. Persons holding a varsity or junior varsity letter are barred from intramural participation in the sport in which they received the letter. Also, those on a freshman, varsity, junior varsity or club team are ineligible for that sport. Those who have not received a junior varsity or varsity award must wait one complete academic year after such participation before competing in that sport intramurally.

Cornell provides a wide array of facilities, including several gyms and playing fields, enabling the intramural program to be as broad as it is. The program has access to these facilities when intramural teams are not using them. "So far, we haven’t had any problems with scheduling our sports," said West. This is amazing since 1985-1986 saw a record-high of 11,000 (calculated from team rosters) individuals, mostly students, participating in intramural sports.

The past few years have shown other dramatic increases, too. Last year, volleyball surpassed softball as the largest sport in the program with an all-time high of 209 teams participating; softball had only 169 teams. And the women are quickly catching up to the men in quantity. A few years ago, a mere 2,000 women were involved in the program. Now, a whopping total of 8,000 women are participating. West believes this to be "because more women are athletic in high school now and they want to continue their athletic involvement in college. They’re just as aggressive and just as tough as the men."

The main reason for the huge increase in participation is probably the program’s broad range of activities. In addition to volleyball and softball, the program also offers (among others) basketball, soccer, touch football, lacrosse, hockey, squash, wrestling, golf, broomstick polo, sailing, horseshoes and badminton.

This variety is what makes Cornell’s Intramural Sports Program the best in the Ivy League. Few other schools have such a variety. West said that Cornell is the only university to have intramural broomstick polo, and few campuses are lucky enough to have access to a lake for sailing, or their own golf course and bowling lanes.

The friendly rapport between the staff and the participants has also helped the success of the program. In fact, the intramural program at Cornell is so successful that Princeton, Yale and Columbia University have contacted West, hoping to get some pointers for their own programs.

Success aside, West said, "I can’t think of a better job." She feels the intramural program is an excellent outlet for those who participate. "It’s a release for them, a way to relax, work out tension and have fun. It’s an amazing feeling to see a sea of people playing volleyball at Barton Hall," said West. It is also competitive. Some teams get so involved and want to win so badly that they go to great lengths trying to get their opponents to miss play-off games. West said team attitudes change from year to year, depending on which organization is winning the most games in which sport. But, as West said, "It’s all in fun. We’re like one big happy family!"

Intramural Volleyball action at Barton Hall.
Stamp collecting, fishing, bird watching, painting, jogging and reading are all frequently mentioned as favorite hobbies or pastimes. But at Cornell and in many colleges, being involved in theatrical productions would be mentioned by many students as their favorite pastime. Even though they are not studying theater or planning to do it professionally, many students are involved in on-campus theatrical productions in their spare time.

“Acting has been a serious hobby of mine for the past 5 or 6 years. Before coming to Cornell I did semi-professional and community theater shows,” said Charles Ganim Jr., ag ’86.

Christine Weiss, human ecology ’87 discovered acting when she was three years old. “One morning my mother was making bacon for breakfast. I laid down on the floor and started squirming and making a ‘phsot ... phsot’ noise. When I told my mother that I was a piece of bacon, my future as an actress was set,” she said.

Paul Duff ’89, came to Cornell as a biology major in the ag college. In less than one week after arriving on campus he auditioned for and was cast in the leading role of the Musician in Jean Anouilh’s play Point of Departure.

Jennifer Naggar, arts and sciences '89, started auditioning for roles during her first days at Cornell as well. She said “I think I got addicted to auditioning. I got called back a lot (by directors), but for a long time I didn’t receive any roles.” She sees theater as a very intense extra-curricular activity, almost like playing a sport.

These students and others enjoy theater as a pastime, as a diversion from academics, and as a testing ground for a possible career. Naggar likes the immediate response from an audience and the sense of accomplishment she gets from being on the stage. She feels that “The feedback (from the audience) is very fulfilling and it reassures me that I might have talent.” Her theatrical credits include the role of Philotis in 'Tis Pity She's A Whore by John Ford, as well as roles in Child-

hood, and Runaways. She has also done several one-act and original plays.

Weiss is able to let out a lot of aggressions during rehearsals and believes that she needs acting as a part of her life. “I go crazy when I’m not in a show,” she said. Weiss’s roles have included Martha in Who’s Afraid of Virginia Woolf? by Edward Albee, Desiree in Stephen Sondheim’s musical A Little Night Music and a double role of Flo/Madame Pavlenko in the musical A Day in Hollywood, A Night in Ukraine by Frank Lazarus and Dick Vosberg. All shows were Risley Theatre productions.

Ganim loves theater and got involved just before he graduated. “After I start working I won’t have the opportunity to be involved, although I am very interested in directing,” he said. Ganim played the role of Henry in Theatre Cornell’s spring 1986 production of Becoming Memories by Arthur Giron.

Acting is not only a pastime for students, but it can be educational as well. Duff has found that from taking acting courses, “I can now name a lot of the techniques that I use when I’m acting.” He has played Bogrov in Darkness at Noon by Sidney Kingsley, and had a role in the world premiere opera Mysteries of Eleusius. These were all Theatre Cornell productions. Duff also played in a Cornell Dramatic Club production of Runaways by Elizabeth Swados, as well as several one-act and original plays.

Weiss believes that, “You can learn a lot about yourself through the parts you play. You can pull so much (voice, walk, ways of sitting, gestures and mannerisms) from watching people on the street. All these things plus aspects of your own personality can be incorporated into the character you are playing.” She finds that she retains some of the mannerisms she develops for the roles she plays.
AL PASTIME
loetz '86

For Ganim, one of the most helpful courses at Cornell for him as an actor was a communication arts course in effective listening. "This course helped me to develop an attitude of intent listening. Onstage it is essential to listen to the other actors," he said. He also learned that in auditioning one shouldn't try to be too realistic. "An actor should exaggerate emotions during auditions so the director can sense the breadth of his expressive capabilities. You can always tone down an emotion," said Ganim.

Although these students really enjoy theater, there are drawbacks to being involved. The most frequently mentioned drawback is the substantial time commitment. Ganim estimated that the rehearsals for Becoming Memories amounted to 20 to 30 hours per week during the five weeks before opening and even more during the three weeks of performances. "It (being in the show) forced me to budget my time and to do more work in less time," said Ganim.

Duff noticed that his grades were affected by the amount of time he committed to rehearsals. "I am normally an A student, but I had to settle for B's last year," he said. He feels that it is primarily a matter of finding a balance between studying and other activities.

Weiss gives priorities to rehearsals when she is involved in a show. "But, I don't hand papers or projects in late or ask for extensions because of performances," she said. Naggar's attitude isn't as focused on grades as that of many other students. "I think that it's unhealthy to concentrate just on academics. You need some sort of outlet," she said.

The theater draws many people who enjoy it as a pastime, but fewer people consider it as a career. Although Ganim loves the theater he doesn't want to throw himself into acting as a profession. "There are so many talented people out there trying to make it that it is extremely difficult to get roles," he said. Naggar doesn't plan on acting as a profession either. "My brother is an actor and I know the hell he has gone through in becoming one," she said.

Although Weiss plans on becoming an actress after college, she is majoring in facilities planning so that she will not starve while she's trying to make it as an actress.

Duff, on the other hand, has become so enamored with acting that he has decided to change his major from biology to theatre arts. "Originally I thought that I wanted to do research in biology, but as I became involved in more theater and looked at the courses that I was interested in taking I decided to transfer to the arts college," he said. Duff would like to try acting as a career but expects that he will end up in the academic world.

Naggar is also in the process of transferring from the ag college to the arts college, but as a psychology major not a theater arts major. "I am not planning on becoming an actress, and an undergraduate theatre arts major is not necessary if I do decide to do graduate work in theater," she said.

A positive aspect about theater at Cornell is the abundance of productions and the degree to which they are open to all students regardless of their major. Duff believes that at many schools the theater departments are exclusive, giving roles primarily to theater majors. He has not found this to be true at Cornell. "There are engineers, hotel students and ag students involved in productions on campus," said Duff. Weiss feels that, "Anybody who wants to be involved in theater shouldn't feel they need to be in the theater department."

Just by the definition of the ag college, ag students are not immediately associated with the fine or performing arts. Naggar feels that performing is the type of thing in which anyone can be involved. As she said, "All it takes to become involved in theater is persistence and commitment."

Above: As Martha in "Who's Afraid of Virginia Woolf?" Weiss '87 yells at her husband, played by Anthony Sabedras.

Below: The young lovers kiss. Ganim '86 and co-star Dana Case in "Becoming Memories."
Not all sports teams at Cornell University are the same. There are winning teams and losing teams. There are teams with die-hard fans and teams which have had empty bleachers since time began. And then there are the teams which are not even considered real "teams" because they lack varsity status. These organizations are known as "clubs".

The women's squash program at Cornell has club status. The club's position is noteworthy because it is in obvious contrast to that of the Cornell men's squash team, which is given varsity status.

So what's the difference? The greatest advantage of varsity status is increased funding. Jennifer Stone '87, a member of the women's squash club, said, "I guess the women's club does envy the men's team a little bit because we'd like to see ourselves in the same position." The Cornell women's squash club currently uses facilities of lesser quality than those used by the Cornell men's squash team. According to Stone, "We play on courts with dead boards. The men's team plays on newer courts that have been recently resurfaced."

Cornell women's squash coach Leslie Porter explained that the root of the discrepancy is two-fold. "Women's squash is very young at Cornell. Because of this, we do not have a substantial alumnae group from which we can receive gifts for financial support."

Also, said Porter, in contrast to the men's squash team, the Cornell women's squash club does not have an established fundraising and recruiting network. Friends of Cornell University Squash (FOCUS) works both to raise money and attract athletes to the men's program. The women's club is presently funded primarily by the Student Finance Committee, as well as through gifts received from donors.

"It will take a few years for an alumnae network to establish itself. As players graduate, a network can be developed. Until we develop alumnae support, we won't have the funds necessary to be a varsity team.

Porter is optimistic about the future of women's squash at Cornell, though she predicted that the club would attain varsity status in five years at the earliest.

Squash, or squash racquets (its proper name) is an English game which got its name from the squishy sound of the ball when it hit the wall. The singles games is played within four walls, on a court that measures 18'6" x 32'. This gives squash the advantage of being playable in all types of weather, throughout the entire year, at any time of the day or night.

Squash is an easy game to learn, which is one reason for its growing popularity. Most of the women on the Cornell women's squash club only had minimal exposure to the sport before joining the club. Stone learned how to play squash in a physical education class at Cornell. "I was really lucky to be taught by Peter Briggs, a world class squash player and coach of the men's squash team." It was this class, said Stone, which sparked her interest in joining the club.

Stone, a former Cornell varsity tennis player, had the advantage of having played a racquet sport before. "Like tennis, squash involved hand-eye coordination, but it (squash) is a faster game. In terms of staying in shape, you can't beat squash. It's quicker."

Porter emphasized that in order for Cornell women's squash to compete with varsity status, more than mere financial support is required. "In addition," she asserted, "all players must maintain the attitude in competing of a varsity athlete. This means commitment." Porter stressed that the women's club is making great strides in developing team spirit.

With the commitment of Porter and the members of the Cornell women's squash club, varsity status will undoubtedly become a well-deserved reality. As Porter said, "It's just a matter of time."
SWITCHING STICKS
by Paul Weinberg '87

When Shelby Bowman was hired to be the head coach of the women's field hockey team at Cornell in 1977, she was reunited with Cheryl Wolf, who had taken over as the Cornell women's lacrosse team head coach only a year earlier. Bowman and Wolf, former teammates on the West Chester State field hockey team, found themselves in a unique situation.

"Since we had the same coach in college, we shared a common outlook on the way sports should be played, and we knew each other well enough to know that we could work well together," Wolf said. "So, in 1978, a system was put in place that made me the assistant coach to Shelby during the field hockey season, and made her my assistant during lacrosse season."

The "dynamic duo" system that was set up in 1978 is still going strong in 1986. "The key is that while we are both competitive people, we also have confidence in each other's ability to bring across the right ideas at the right times," Wolf said.

"The system works so well because it takes advantage of the differences in our personalities as well as the similarities," Bowman said. "Cheryl tends to be defensive-minded, while I like to work with the offense. Some kids respond well to my style, and other kids tune in better to her. We complement each other," she said.

The Bowman/Wolf tandem has had a very positive impact on both the women's lacrosse and field hockey programs. "The Ivy philosophy, as Shelby and I see it, is to give students as many opportunities to compete as possible. Since the field hockey season ends well before the lacrosse season starts, many players choose to participate in both sports," Wolf said. "Since the two sports are different in many ways, the kids get to develop lots of different skills. Also, we get to know them better by seeing them throughout the year."

"There is a definite advantage in the players seeing us both as assistant and as a head coach," Wolf said. "It teaches the players that there are times when you are the boss and what you say goes, and there are times when you are not the boss and you have to bite your tongue."

Neither Bowman nor Wolf expressed a desire to be head coach of both sports. "The pressure is off you as assistant," Bowman said. "The current system helps prevent either of us from burning out."

If all the other advantages weren't enough, Bowman and Wolf's teams have had plenty of success on the field as well. Wolf's women's lacrosse team won the New York State Tournament in 1983, 1984 and 1986. Bowman's women's field hockey finished the 1985 season with its best record in ten years. Based on the "dynamic duo" system so far, one can expect only continued success.

Shelby Bowman, left, and Cheryl Wolf, above, have been Cornell's "winning combination: since 1977."
"Stretch out everybody!" Olivia Lee turns on her tape recorder and begins stretching to the contemporary beat. Lee '87 instructs the Cornell Chinese Dance Troupe. Dressed in a tank-top and tights, she looks like an aerobics instructor, but the dances she teaches date back thousands of years before aerobics ever existed.

"Traditional Chinese dance can be classified as folk or classical," Lee said. "Folk dances come from the common people and have a long, long history. Classical dance is what you would have seen if you visited the emperor's palace in ancient China."

According to Dana Chin '87, a three-year member of the troupe, "Many of us don't have any previous dance experience." Two-hour practices are held every Sunday, when the group of about ten girls learn how to fling their ribbons and flutter their fans. "Sunday is everyone's study day, so I'm really proud that we keep regular practices. Lots of other ethnic dance groups on campus only get together if there's a performance coming up," Lee said.

Among the dances the troupe has performed are the animated Mongolian chopstick dance, the flower drum dance and more delicate feather fan and silk ribbon dances.

"People always like to see the colorful, silky Chinese costumes," said Tiyen Lin '86, who has attended several of the troupe's performances. "Chinese dance has to look graceful and feminine and that takes coordination. For the time the group invests, they put on a pretty extravagant show."

The troupe performs for many international cultural shows at Cornell. Lee hopes to expand out from the campus community. "We put on a show at the J.W. Rhodes department store recently, and the mayor's wife saw us and wanted us to dance at her house!" Lee said. "Next year we may even go to Washington D.C. to perform."

Lee's Chinese dance experience started in ninth grade when she began studying with the Chinese Dance Company in New York City. Her background also includes ballet, jazz, tap and modern dance. She said Chinese dance requires as much flexibility and energy as other forms of dance.

"Chinese dance is very controlled and defined. All kinds of dance give you a feeling of expression, but with Chinese dance I feel like I'm also giving the audience a peek at our heritage," Lee said.

Chinese dance is only one small aspect of Chinese culture, but audience member Shagu Shen '86 said, "At least seeing the troupe dance gets people started in learning about Chinese culture."

The dance troupe's Chinese New Year show at Willard Straight Hall was Leslie Weisberg's first exposure to Chinese dance. "You don't get many chances to hear this kind of music or see these kinds of costumes," said Weisberg '87.

Because the troupe members are amateurs, their standards are reasonable. Most of the dancers were born and raised in the United States and have joined the dance troupe simply for something to do. "I just think it's a lot of fun, and it's pretty good exercise too," Chin said. "But also, dancing with the troupe is a means of exploring our heritage actively. We're not reading about tradition, we're doing it."

Culture in action. That's the Cornell Chinese Dance Troupe.
"Looking at just an athlete's weight doesn't tell the whole story," according to Antoinette (Toni) McBride, assistant athletic trainer in the Department of Physical Education at Cornell. "An athlete must be losing the right type of weight, not muscle instead of fat," she said. To insure that athletes at Cornell are maintaining a 'healthy weight,' McBride has assisted in building a hydrostatic device which determines an athlete's percentage of body fat.

To use the device, an athlete first exhales into a spirometer, which measures the lungs' air capacity. The athlete then puts on a weight belt and sits on the underwater weighing apparatus—again exhaling—thus determining his or her weight in water. Using a series of formulas combining weight in water, weight on land and lung capacity, McBride can determine an athlete's body fat percentage.

"Athletes have to make sure they are losing the right weight. Taking their straight weight is not all that accurate; that takes into account body water weight, fat weight and muscle weight," McBride said. "Athletes have to keep their body fat percentage within a certain range in order to achieve maximal performance while staying as injury-free as possible. Body fat analysis is also a good screen for determining possible risk factors in coronary disease," she added.

The underwater weighing device, housed in Teagle Hall swimming pool, copies a similar, more complex device used by nutritionists in Savage Hall.

Dr. Jere Haas, associate professor in the Division of Nutritional Sciences in the College of Human Ecology, uses the machine in the nutrition department to monitor people who lose weight through diet and exercise. Haas said the nutritionists' machine works on a similar principle to the Teagle Hall machine, but he added that they measure the amount of air in the lungs while the person is actually in the water—involving more equipment and expense.

FIT or FAT?

by Judith Zwolak '87

Measuring the air capacity while the participant is immersed in the water leads to a more precise measurement of their buoyancy—which is a key factor in determining their body fat percentage, Haas said. The nutrition division's research requires more precise measurements than the athletic department's assessments, he added.

The athletic department's device was much less expensive to build since it does not have the complex series of tubes and meters that the Savage Hall device uses to measure lung volume while the subject is in the water. Subjects who use the Teagle Hall machine simply exhale when they are in the water and signal to the person who is weighing them when all of the air is out of their lungs.

The hydrostatic device used by the athletic department has a three to five percent error factor, while the Savage Hall machine has an error factor of one percent, McBride said. However, she is currently studying the differences in the readings from the two devices. "In previous studies, we were not that far off from their results," she claimed.

We also want to open this facility to the Cornell community," McBride said. Along with others in the athletic department, she is tentatively planning to develop a fitness evaluation exam for the Cornell community. The exam will include an evaluation of participants' body fat percentage, aerobic capacity, and assessments of strength and flexibility, she said.

At present McBride is concentrating on the benefits to Cornell athletes. Weight-dependent sports have the most to gain by using the machine, she said, since they must retain muscle weight instead of fat weight. She added, "The body can be deceiving."
by Leora Brayer '86

Question: What has thirty-two legs, sixteen sets of pearly whites, a pitch pipe, is coed, and sings?

Answer: The Class Notes.
The Class Notes formed in the fall of 1983, making them the youngest a cappella singing group at Cornell. They already have participated in two Cornell Jamborees to a full Bailey Hall crowd, have organized their own annual "Cut-tin' Class" concert and have gone on tour.

I am a Class Notes member myself, so while some objectivity may be lost in trying to tell you about my favorite singing group, you also get all the inside stories.

Auditioning for the Class Notes was a wonderful experience for me. At that point in my life, there was nothing I wanted more than to join that group. As I waited outside the audition room, I could hear all the threateningly beautiful trained voices of those who went before me. When my name was called, my heart pumped wildly and my face turned beet red.

I entered the room and saw twelve faces staring at me ready to rip my voice apart. Fortunately, it did not turn out that way. I felt at ease and was quite happy with the audition I gave. I was thrilled to read my name on the "congratulations" list.

Some changes have occurred since the Class Notes first started. There has been a large turnover of members in the past three years. By May '86 only four of the original members remained. Starting in the fall of '86, Mark McCarthy '87, will be the only original member left. "People graduate and then there are others who realize that they do not have the time to rehearse and perform," said Justine Johnson '86, the group's director from spring '85 to spring '86.

Another change that our audiences must notice is in the Class Notes' repertoire. When I joined the group in the fall of '84, we were singing jazzier, older tunes, like "Stardust" and "Take the A-Train," with a few modern tunes for contrast. At the Jamboree on April 25, 1986, our set included hits like "Monday, Monday," "Only You," "Pilot of the Airwaves," and a lovely Hawaiian folksong sung by Debbie Ting '88, our own native Hawaiian representative.

As we became a more mature and experienced group, we were invited to perform more frequently and for a larger variety of functions, such as fraternity parents' weekend dinners, Statler Hotel receptions, anniversaries, and the recent Secretaries' Convention held at the Ramada Inn in downtown Ithaca.

Rise

For me, the highlight of my involvement with the Class Notes was our week long tour of upstate New York, New York City and Long Island. It was the first time that we spent a lot of time together as friends and as a singing group. "When we got to Class Notes, member, Chris Frissora's '85 ski house at 3:00 in the morning, all of us got into her jacuzzi and drank daiquiris. It was unforgettable," said Don Snow '88, the present director of the Class Notes. We sang in shorts, t-shirts, 105° water and in harmony.

I felt that because of the tour and the closeness we shared, we sing more tightly and we have more of a shared feeling about how the music is supposed to sound. Danny Gringauz '86, a senior in the college of Arts and Sciences said, "I have been a Class Notes fan since their beginning and I've definitely enjoyed watching their development."

The Cornell Class Notes alumni list now numbers thirteen and will continue to grow. I am a June '86 graduate and in fact I think the thing I will miss most about Cornell is the closeness and the music that I have shared with the group.

From left The Class Notes: Martha Montes, Marie Connett, Adam Benjamin, Lisa Gagnon, Peter Noble, Christine Frissora.

From left More Class Notes: Ruth Hanning, Matt Dristan, Tina Johnson, Leora Brayer, Dana Post, Amy Pietzen, Don Sinow, Debbie Ting. Missing: Mark McCarthy and Nancy Herta.
Conceived, legend has it, during a frigid Ithaca night seven years ago—St. Patrick’s Day, to be exact—a mysterious organization came upon the Cornell campus. Four return Peace Corps volunteers (RPCV’s) gathered at a place called Frank’s Pub and imbibed alcoholic substances to “quench their thirst for knowledge for that moment and for all time to come” (author unknown). They spoke of such wild and wondrous things as the sweatless kangaroo rat and the flying wing bean. As the night waned (and the keg emptied), their vision crystallized; they were going to form an organization. Its characteristics: grace, sensitivity, the capacity for love, good taste, professionalism and scholar ability. Its focus: international development. Its name: the International Association of Camel Breeders (IACB).

Over the years, the breeders have evolved from a small group of social nomads in search of water holes like Frank’s Pub to an association that addresses international development issues with a multidisciplinary approach.

“The Camel Breeders have three main goals,” according to Joe McGee MPS ’87, co-president of the IACB. “One of them is educating ourselves and the Cornell community about development issues. And that’s why every semester we try to have at least one major seminar as well as movies and our magazine.” Last semester the breeders, together with other campus organizations, brought Joseph Collins, co-author of Diet for a Small Planet to Cornell. Past seminars have covered such topics as seed multiplication, population planning, tropical soils and ethics in international development.

Like any “herd”, the IACB must educate itself from within. “I’d say our main concern is sharing the knowledge and experience that we have gained from our travels, work and studies with other members of the group,” said Alex Singer MPS ’86, comrade “cameloid” and co-president of the breeders.

“The second goal is helping to get our members employed after they leave Cornell,” said McGee. “We do that by networking, not only with our alumni, but with other organizations on other campuses, private voluntary agencies and government agencies involved in international development.”

Singer feels that the job conferences organized periodically by the IACB are a very strong aspect of the group’s work. “We’ve become quite well-known for our job symposiums. We’ve had a speaker from USAID and from private volunteer organizations. The conferences also contain workshops which address issues like, ‘What is the state of the job market in development work?’ and ‘What is it like to work in the private sector?’”

McGee defines the breeders’ third aim as “getting to know other people with different experiences and similar interests.” To facilitate this goal breeders congregate in several pastoral settings. On the first Friday of each month, they can be found sipping the cool happy hour waters at the Royal Plam Tavern, a local Collegetown oasis. They also frolic at annual Fall Ruttling Season and Spring Migration bashes. These wondrous creatures even have their own softball and volleyball teams.

The IACB is comprised of approximately 95 percent graduate students, most of whom are from the College of Agriculture and Life Sciences, with a sprinkling of undergraduate aggies, faculty members and off-campus members. More than any other factor, travel experience is the common ground among most members. “We have people who have traveled extensively in all sorts of organizations, and all over the world—Asia, Africa and Latin America,” said Singer.

RPCV status is not a prerequisite for joining the organization. “There’s nothing selective about becoming a member. If you have an interest in international development, you’re welcome to join us. If you don’t know much about it, that’s so much the better. I think it’s a very good forum to learn in,” added Singer.

Origins, structure and functions resolved, inquiring minds are still not over the hump. The gnawing question remains: WHY CAMELS?! Surely there can be no connection with the animal’s characteristic ability to go for extended periods of time without water. Corneliannians are well-acquainted with the term cloudburst. Perhaps it has something to do with the multi-faceted nature of the Cornell student—after all, the camel is quite a complex creature. A back issue of Camel Breeder News quotes Egyptian veterinarian Dr. Sabry M. Aly as saying that the “Camel has the neck of a swan, the tail of a horse, the hooves of an elephant and the body temperature of an amphibian.” Then too, there is the insightful Corneliann-camel link presented in author Dennis Goulet’s introductory speech at a 1983 Ethics in International Development Conference: “Camels are the world’s best known ruminants: that means they think.”

A more sincere attempt at analyzing the bond was offered by McGee: “Camel breeding, it sounds funny, but I think the name represents an appreciation for indigenous knowledge systems, if you will. Maybe western technology is not the solution to other people’s problems. It also reminds us that we have a lot to learn from the people who have been surviving in harsh environments for a long time. It’s not just a one-way thing where we have a paternalistic attitude for handing things out to people. We have as much to learn as to give.”

by Andrea L. Bauman ’86
As the story goes, the announcer at the Cornell-Clarkson hockey game during the 1986 Eastern Collegiate Athletic Conference tournament had to apologize because he could not hear the person he was talking to. The reason, he said, was because the two finest pep bands in the northeast were playing: Cornell and Clarkson. However, a reputation for musical excellence is only one part of the Cornell University Big Red Pep Band tradition.

Traditions can be hard to pin down. People may not remember how or when the tradition started or who was there when it began—but they know they would be disappointed should it ever disappear. An integral part of many Cornell athletic events, the Big Red Pep Band is such a tradition.

"The pep band officially started in the late 70s basically as a hockey and basketball band," said Big Red Pep Band manager Bob Pittman '87. Even Phil Krasicky MS '75 PhD '80, who became the band's first manager in 1978, was not sure of its origins. "The pep band was going strong, although more informally organized than it is now, when I came to Cornell in 1972, but they were just playing at hockey and basketball games," he said. "Then around 1978 they added soccer and about 1980 they added the others."

The "others" constitute another part of the Big Red Pep Band tradition. Where most college pep bands are responsible for only one sport, the Big Red Pep Band plays for five: men's soccer, 150s football, men's lacrosse, men's ice hockey and men's basketball. Nor is it unusual to see the band playing at women's basketball or women's ice hockey. "We're the only pep band in the Ivy League to attend that many events," Pittman said.

Despite the importance tradition has had in defining the nature of the Big Red Pep Band, members have not been afraid to break from its past. "Up until the 1984–85 season the pep band had been under the wing of the marching band, sharing their funding and facilities," Pittman said. "Then, under the initiative of the 1985 pep band..."
Eyes on the conductor (left) despite the sun, drummer Heather Doering ’89 readies for the roll-off. Depending on the sport and weather conditions, the band ranges in size from 15 for a lacrosse game to 50 for a basketball game.

Braving a cold April day (below), the pep band celebrates a goal during a men’s lacrosse game at Schoellkopf Field. The band has played at the Syracuse Carrier Dome and the Boston Garden in the past seasons as well.

manager, Sarah Mendell, we went on our own.” The change was prompted by financial need.

“Pep band members had paid out of their own pockets for their travel expenses and tickets for any away games they attended. If we chartered a bus, the cost started at $30 a seat,” Sarah Mendell ’87 said. “If you take this spring for example, we made four road trips in six weeks. Food gets expensive on top of transportation and people who wanted to go, or needed to go for instrumentation, just could not afford to.” The pep band became eligible to apply for funding from the Student Finance Commission as a separate organization simply by changing election procedures. The pep band manager is now elected by members of the pep band rather than by members of the marching band. Having a stipend of its own means that members no longer have to finance all of the band’s activities.

The break brought benefits in terms of membership as well. As a group in its own right, the pep band can be more committed to recruiting members from outside the ranks of the marching band. “We need new people to bring in new ideas,” said Anne Welch ’88, who plays flute in both bands. The prospect of playing in a band where auditions are unheard of, the atmosphere is informal and the hockey tickets are free can be very attractive. “I like going to the games and getting to play my trumpet where no one is under pressure to perform,” said John Gustavsson ’88, who was recruited by a friend.

Despite the relaxed atmosphere, pep band members take their role seriously. “We are there to liven up the fans and provide entertainment. It is a big boost for some of the teams and they really like having us there,” Pittman said. Sandy Gilbert ’86, a member of the women’s ice hockey team, agreed. “It psyches us up and the higher noise level adds to the competitive atmosphere. It involves the fans too,” she said.

“Sometimes we’re the only Cornell fans, especially at away games,” Scott Pesner ’87 said. “But we can make double the sound of the home team’s band.”

Much of the Big Red Pep Band’s success at what it does—“getting Cornell fans psyched about Cornell teams” as director Rich Goldstein BS ’86 Vet ’90 phrased it—comes from the unity among the band members. “The pep band is a closely knit group that enjoys going places and supporting the teams together,” Mendell said. Playing with the pep band does require dedication and some stamina. On a given night, members might play at a basketball game, run from Barton Hall to Lynah Rink for a hockey game, yet still have the energy to go out for pizza with the visiting band.

Thus, the nature of the people who give the band its substance and spirit comprises perhaps the most important part of the Big Red Pep Band tradition. “The people in the band are a special group,” Goldstein said, speaking from his experience in the band as an undergraduate. “They want to see the band work and their enthusiasm shows it. They can take pride in the fact that they are recognized as the best pep band in the Ivy League.”
The Department of Education in the College of Agriculture and Life Sciences is one of the most successful educational entities in the nation, yet it is one of the best-kept secrets at Cornell. Although relatively small, the department's influence on education spreads world-wide.

Most students in professional education programs at other schools and universities are undergraduates studying to receive certification to teach in elementary or secondary schools. At Cornell, however, only a third of the students in the education program are undergraduates who receive teacher certification. The major emphasis of the program is on graduate education and research into educational problems.

The department's number of faculty (25 professors and 10-12 research and teaching associates) is one of the lowest for an institution of comparable size devoted to educating educators, but Prof. Richard E. Ripple said "The quality of student produced by this department is great. We're the top graduate education program in the northeast." The program focuses on preparing students to be educational leaders, influencing scholastic institutions all over the world. Graduate students, who in the spring of 1986 numbered 107, design their own degree programs in seven major areas of educational study, including agricultural and occupational education, curriculum and instruction, educational administration, educational psychology and science and mathematics education. Those receiving degrees go on to occupations such as curriculum developers, learning researchers and teacher-educators, who teach others how to teach.

While the education department is very much involved in the instruction of students, much of its energy is spent on research in areas such as knowledge generation, educational policy and computer instruction. One of the important areas of research is being conducted in the field of agricultural education, of which Cornell is the acknowledged leader. According to Prof. William E. Drake, "Cornell knows what's going on in the real world," and is responsive to its needs, whether in teaching in New York or in formulating agricultural policies for developing countries.

Small schools in rural districts in the state usually cannot provide students with the same diverse offerings found in larger schools. Cornell is in the forefront of developing materials and curriculum for the benefit of these rural schools through its Rural School Program and Instructional Materials Service. Cornell also extends its outreach by sending many of its education graduates to top leadership positions in ministries of education and agriculture both at home and abroad, where they develop policies that increase agricultural development in their areas.

The outreach of Cornell's education department is very valuable to the nation, especially at a time when America is very critical about the quality of education its children are receiving. Department of Education Chairman Joe P. Bail said he has seen improvements made in the quality of education over the past few years. "It's not what we aspire to yet," he said, "but it's getting better." Toughened school standards have been reflected in better performances on standardized tests during the last five years. The New York State Board of Regents, well aware of the state's educational problems, recently implemented the Regents Action Plan, which, among other things, will place more emphasis on science and math education.

In response to this need for quality science teachers in the country, the department is presently upgrading its science and mathematics area to be prepared for the coming years. Although undergraduate teacher certification in the past has been a very small part of the department's function, a recent $500,000 grant from the Mellon Foundation will be used by Cornell to encourage undergraduates to certify in the science education area through a 5th year M.A.T. Additionally, two new tenured faculty positions in this area will be created for the Fall 1986 semester, Bail said.

Despite the successful past and the bright outlook, knowledge of the small education department versus a large school or college of education within the large university is not great among Cornell students. As Prof. Drake said, "We're known better away from Ithaca than here." Nonetheless, continued emphasis on producing educational leaders and research on learning will keep the department at the cutting edge of education for the future.
Ground Broken for Food Processing Lab

A ground breaking ceremony last July 9 marked the start of construction for the new Food Processing and Development Laboratory for the New York State College of Agriculture and Life Sciences. The $6 million building will house training facilities for New York State's dairy and food industries, particularly studies in quality control, packaging, product development, safety, and consumer demands.

Researchers will also work to develop new, higher quality foods from New York State's agricultural products. These products are valued at almost $3 billion annually, and, after processing, about $7 billion. Researchers hope the new facility will help to further strengthen the economic role of food production in the state.

The building, to be located behind Stocking Hall, is being financed through the State University Construction Fund. It is scheduled for completion in September 1987.

Entomology Lab at Geneva Named for Barton

The entomology-plant pathology building at the Geneva Experiment Station was officially renamed last August. It is now called Barton Laboratory, in honor of Dr. Donald W. Barton, former director of the New York State Agricultural Experiment Station at Geneva, N.Y.

Barton worked at the Station for 31 years, first as a researcher of vegetable crops, then as director. During his tenure five facilities were built and existing structures were renovated, attracting more scientists to the Station. Barton also promoted joint research projects with other scientists and experimental stations, both national and international. Constructed in 1968-69, Barton Laboratory is the newest research facility on campus.

Capener and Webster Gain Emeritus Status

Two professors in the College of Agriculture and Life Sciences have been awarded emeritus status.

Harold R. Capener is renowned for his studies of the effects of economic stress on farm families and related sociology of agricultural issues. A Cornell faculty member for 22 years, Capener presided over the Rural Sociology Society in 1975-76. He was also chairman of the Department of Rural Sociology for ten years.

After 43 years on the Cornell faculty Dwight A. Webster is retiring also. A fisheries biologist, Webster bred a type of brook trout which is not affected by acid rain. He also helped to establish the Adirondack Fishery Research Fund. In addition, Webster served four years as chairman of the Department of Natural Resources.

Two researchers at the New York State Experiment Station at Geneva retired in May, 1986. John R. Stamer and Leonard R. Mattick, both professors in the Department of Food Science and Technology, conducted research for a combined total of 53 years.

Stamer, PhD '62, is a renowned specialist of lactic acid producing organisms. One practical application of his research has led to improved fermentation procedures for sauerkraut. Stamer was also one of two winners of the 1977 Campbell Award of the American Society for Horticultural Science.

Mattick has done extensive research in New York state's wine industry, particularly the reduction of acidity of wines. He is also a founding member of the Eastern Section of the American Society for Enology and Viticulture. Mattick plans to continue his work in Bangladesh for the Winrock International Institute of Agricultural Development.
GIVING BIG RED HOCKEY A BOOST

an excellent program because many of the players come from small communities, and living with a family helps them to become accustomed to college life with a little home life.

Many of the hockey players have lived with booster families during their high school years. According to Cornell center Pat Heaphy '88, "It is not uncommon to live with a booster family as a 17 or 18-year-old hockey player in the Canadian Junior League."

Many of the hockey players that live with families later move out to live on their own. Mark Canduro '86 lived with the Ostroms for two years then he moved out to live with other teammates.

Some players make the opposite transition. Brock Tredway '81 lived with Dale Grossman '72, a lecturer in the Department of Agricultural Economics and Communication Arts, during his junior and senior years. As a host for a senior, Grossman was able to assist Tredway in planning his professional career for the New Haven Nighthawks.

Jack Ostrom '51, University Control-

ler, and his wife Marybeth Ostrom '51, a registered dietician with the nutrition program of Tompkins County, prefer to take in players when they first come to the University. Mr. and Mrs. O (as the players refer to them) said, "We have enjoyed having freshman come live with us so we can watch them grow."

During the 1985 to 1986 school year, Pat Heaphy and Jim Edmonds '87 lived with the Ostroms.

How do the hockey players repay these kind people for their hospitality?

"I do not pay rent," said Heaphy, "but I am available for chores in my free time."

According to the Ostroms, "We are not looking for a hired hand, but anyone we bring into the house we expect to be part of our home and to do things around the house the way we would expect of our own kids."

Don Fawcett '87 lives with the Scanlons and does not pay rent either. Fawcett said, "I try to show my appreciation by helping out around the house such as shoveling the driveway or doing the dishes."

According to Grossman, "Some players pay rent or they work out some sort of agreement that does not violate the NCAA rules."

Head Hockey Coach Lou Reycroft makes all the placement arrangements. Heaphy said, "In most cases the family has never met the player, although a few have. "I was lucky," said Heaphy, "I met the Ostroms when I stayed at their home with Mark Canduro on a recruiting trip."

Similarly, Don Fawcett met the Scanlons on his recruiting trip when he stayed at their home with Geoff Dervin '84.

Ostrom and Scanlon are both associated with the University as are many of the hockey boosters. In fact, Wendell Earle MA '48, PhD '50, professor emeritus in the Department of Agricultural Economics, is the faculty advisor to the team.

The program also draws many people from the community. George Taber, Assistant Director for Business Affairs at Cornell University Public Safety, plays an active role on the C.H.B.A.'s Board of Directors and has served as president from 1981 to 1983. He said, "I strongly support the program because it strengthens the ties between Cornell and the Ithaca community."

Whether or not associated with the University, everyone involved shares something. They all are avid hockey fans and they all enjoy being involved with students.

Cornell University hockey players have no doubt earned their fine reputation, not only on the ice, but off the ice as well.

by Tambi Lee Saffran '86
Acid Rain and Ozone
A Deadly Combination?
See p. 16
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November 1986 Volume LXXXIV Number 2

ABOUT THE ISSUE
Themeless can be wonderful. Look through this mixed bag and find a little of everything. We visit classrooms to look at teaching methods, labs to look at research both at Cornell and across the country. We watch the birds at Sap sucker Woods, take medical lessons from a primitive fish, and look at spruce seedlings for clues about forest decline. Interviews at Mann Library and a historical look at the Straight reveal a little of the past, and we look at the future too: student-staffed cable stations, tax reform and dwarf-sized apple trees.

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The Cornell COUNTRYMAN (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell COUNTRYMAN Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays ’12. Faculty advisors: Jane E. Hardy ’53, Linda Myers ’64.
Some animals are raised to be eaten. They serve as an immediate nutritional benefit to flesh-eating mammals. Some animals are raised for scientific research. Their benefit is not felt immediately, yet it is invaluable. Those who believe animal research is immoral would have to be militant vegetarians to avoid hypocrisy. For man can survive as a herbivore all his life. Man could not prosper, however, if research on new drugs and surgical techniques did not continually occur.

There is a growing controversy in the United States as to whether vivisection, the practice of subjecting living animals to surgical operations in order to advance physiological and pathological knowledge, is morally right. Those who believe and practice animal experimentation are subject to strict laws and regulations. The U.S. Department of Agriculture, The National Institute of Health and the N.Y. State Department of Health all regulate institutions, establish guidelines, and state rules concerning the use of animals.

Colleges that conduct animal research are required to have centers responsible for ensuring humane animal care. The Center for Research Animal Resources (CRAR) at Cornell University monitors the facilities on campus. CRAR files yearly assurance statements that all applicable regulations are being met, and oversees all inspections of Cornell animal facilities.

Dr. Patrick Concannon, Senior Research Associate for Cornell University's Section of Physiology, teaches a class involving animal experimentation. Introductory Animal Physiology uses living frogs, rats, chicks and rabbits for research. The class curriculum is a series of physiology experiments. Students learn the use of modern instrumentation to study the living tissues of animals, cells in blood, and isolated muscles and nerves. They also learn about circulation, intestinal absorption and anesthesiology.

Concannon is aware that his class curriculum is controversial. Because living animals are used, and they are terminated following their use, there is criticism by anti-vivisectionists. Said Concannon, "There is nothing I can really say to the anti-vivisectionists; we do terminate the lives of the animals we use. However, I believe it is the manner in which we apply our decision to use the animals." Each animal is used to its fullest, so as not to waste its life. Unfortunately, there is often no other substitute for the use of a living animal.

Teaching facts and theory, Concannon said, is all well and good, but without practical experience students do not learn the methods of physiology research.

It is important to understand that the animals used in the Introductory Animal Physiology class are not mistreated. Each animal is anesthetized before experimentation begins. The animals must be terminated following the experiments because of the amount of research conducted on them. Introductory Animal Physiology meets all state laws and regulations regulating vivisec-

Zorba Lieberman '87, a biology major at Cornell University, took Introductory Animal Physiology last year. Said Lieberman, "It was an excellent course, designed to give students a thorough grounding in animal physiology. The course gave students, who have the intentions of a career in medicine, veterinary medicine, physiology or animal science, a chance for hands-on experience." Lieberman said that students are first required to learn the theory behind the experiments before any actual work is done. Following each lab, a detailed lab report is required.

Whether or not one believes in animal research, its value cannot be denied. Every pharmaceutical advance involved animal models. Work on heart transplants and micro-surgery, contraceptives and toxic levels all involve research animals. Classes like Introductory Animal Physiology teach the next generation of scientists the value of animal research. It awakens in them the unlimited possibilities of advancement that can only be attained from experimentation. Said Lieberman, "If I were given the chance to take the course again, I would want to even more so than before, because now I know how fascinating and valuable it was for me."

by Nancy A. Richardson '88
At 8:30 a.m., I am the first one in the newsroom. I turn on the Associated Press wire... it starts its usual clanking and clicking and begins typing out the latest world news. The scanner is turned on and a buzzing is heard, then a voice. "Fire alarm at 200 S. Plain St. Repeat—fire alarm—South Plain Street." The newsroom's TV is switched on to channel 17—CNN, the 24-hour in-depth news network. As the Assignment Editor, the next step in getting the day started is making phone calls to local police and fire stations. "I'm calling from Cable Newscenter 7. Do you have any news for me this morning?"

Cable Newscenter 7 is a live, weekday news program broadcast at 6 p.m. with a videotaped repeat at 11 p.m. It premiered July 1, 1986, to Ithaca, N.Y. and surrounding counties after almost one year of planning by American Community Cablevision. Cable Newscenter 7 is the only live, local cable news program in upstate New York, and one of the few cable-produced news programs in the U.S.

The anchor and news director, Donna Fowler, leads a staff of students culled from the community, most notably through the communication and radio/television programs at surrounding colleges and universities, including Cornell. "The students are very much involved in the entire process of the news program. They create the bulk of the news staff and are responsible for just about everything. You name it, they do it," said Fowler.

Chris Costa '87, a communication major in Cornell's College of Agriculture and Life Sciences, said his responsibilities include much more than he expected. "I'm reporting, writing news stories, editing and acting as cameraman both in the field and on the set. Bill Pidto '87, the summer sportscaster, said he was busy from the time he entered the newsroom until the show was over. "I'd come in the morning, cut my sports tapes and teases, then write my script. Once a week, I had a special segment called 'Athlete of The Week.' I covered all the local sports events and highlighted the national games."

For the student staff, this work experience is the first encounter with a television newsroom. "I think my experience at Cable Newscenter 7 was a little less than realistic in the sense that we were asked and were able to do so much. We were extremely fortunate. In a larger setting, I do not think we would have that opportunity," Pidto said. Costa said he expected a newsroom to be more organized and less hectic. "I knew there would be a constant time constraint, but I never would have guessed how chaotic a newsroom gets!" For both Costa and Pidto, this experience has confirmed their desire to pursue a career in broadcast news. "I have learned so much about a news program in such a short period of time. This should really help me get a job when I graduate," Costa said.

Fowler said there are both advantages and disadvantages in having a staff of student interns. "The advantages are that the students are young,
eager to learn, and aren't yet burned out by the news business. The only disadvantage is, due to the rotational internship format, the students have to leave us just when they are really fine-tuned, technically proficient and have developed self-confidence about their work.”

Besides technical talent and an understanding of the equipment, Fowler is looking for interns with other qualities. “I am looking for intelligence, perseverance and strong determination. The bottom line is you have to love what you're doing to be in the business.” Contrary to popular belief, Fowler said this is not a glamorous industry. “For every anchor person the public sees on a set, there are five people working behind him. The public tends to forget about all the hard work and long hours involved, but focuses on Dan Rather's six-digit salary.”

By 11 a.m., I’ve collected the local news from the police and fire stations, called the County Board of Representatives and City Clerk's office for today's meetings and have noted any other events taking place locally. I've been checking the AP wire for the latest world news and have been monitoring the scanner for any breaking news. The newsroom's blackboard, which lists the day's stories and who's covering them, should be filling up and reporters are out in the field working on their packages.

As the assignment editor, I am responsible for finding all the news stories, (local, state, national, international), and assigning specific stories to the reporters and camera-people. I’ve learned that even if it appears we have a full day's worth of news at noon, stories often fall apart during the course of the afternoon. When this happens, I must “find” more news or decide on a feature that can be done.

By 2 p.m., several of the reporters will begin returning to the newsroom to write their scripts and edit their packages. This is also the time when the producer produces the show. This consists of organizing the day's stories in a logical format and making sure we have the exact amount of news needed—12 minutes excluding sports, weather, and commercial breaks.

It would be fair to say that the rest of the afternoon only gets more hectic. The reporters are trying to get into the two editing suites, others are writing news stories, some are still out in the field, and the clock is ticking away much too quickly. Costa said, “Afternoons are always chaotic and hectic, but there is always a good feeling of teamwork.” “It's crazy here after 3 p.m. and you just try to stay out of anyone else’s way. After a while, I got used to the atmosphere,” Pidto said.

“A typical day in the newsroom can sometimes be a matter of survival,” Fowler said. “You just have to keep your momentum going. There will always be last minute things that happen, but that is the nature of the business.”

The nature of the business also contributes to unusual, sometimes humorous and sometimes scary events that happen. Costa remembers his first day at the news station when he was asked to operate one of the studio cameras. “I turned it on and thought everything was fine. I then saw the technical director waving his arms at me. I then realized that the only thing people at home were seeing were color bars. I thought I’d die.” Pidto said the worst thing that happened to him was when the teleprompter, the device the on-air talent read their script from, got stuck. “That is the worst experience! It's like being caught without your clothes on. You suddenly have to adjust to the situation without looking as lost as you might feel.”

At 6 p.m., the atmosphere in the newsroom has reached its climax. Everyone has taken his or her place—either on or behind the set—and the on-air light is blinking in the hallway outside the studio. “Good evening, I’m Donna Fowler. In local news tonight...”

As Walter Cronkite used to say... “That’s the way it is...”
In about 20 years' time, the "classic" big apple tree, the one image that is, along with an infinite number of fragrances and textures unfailingly evoked at the mention of the words "apple" and "orchard," will be a thing of the past.

Dr. Gene H. Oberly, chairman of the Department of Pomology at Cornell, said that this will be an unfortunate outcome of the current move toward smaller trees in tree fruit production, if a few large trees are not kept for their aesthetic value.

This scaling-down of tree size and the accompanying changes in equipment, fertilizer programs and spray programs are, Dr. Oberly said, "probably the biggest changes we've had in the fruit industry in the last 15 years."

The reason for this shift in fruit growing operations is mainly economic. "We cannot afford the big trees anymore," explained Dr. Oberly. Not only does it cost more per acre to prune and spray big trees, but insurance companies seem to be becoming more reluctant to offer coverage to farmers with "U-Pick" operations who must use ladders for picking, even though accidents are not frequent, he said.

An acre of small trees can be pruned in about the same time it takes to prune one of the big trees, according to Dr. Oberly, and pesticide costs are reduced too, due to better coverage.

"We can get 25 percent more production of quality fruit off the small trees per acre at a lower cost. We have no trouble producing 1,000 bushels of high quality fruit per acre on these small trees. Our state average for the big trees is usually 500 bushels or less, and the quality isn't as good; so not only are we going to see an increase in production, but also much higher quality fruit on the new trees."

This trend to scale down operations will gain momentum, said Dr. Oberly, as many of the older fruit farmers retire or go out of business.

"To establish one of these high-density plantings you're talking something between $5,000 and $6,000 an acre. An older person simply won't put in that much investment late in life. But I think as the property changes hands we're going to see a higher percentage of high-density plantings."

"There aren't many other big changes going on in the fruit industry," said Dr. Oberly. "There are changes every year but they're small—changes that come about through new technology and new production practices. Like any other field we keep adding new technology. It's kind of interesting though, if you read the old textbooks that [Liberty Hyde] Bailey wrote at the turn of the century he talks about some of the problems they had, and we have basically the same problems today, taking into account updates in technology. It's kind of like the saying that 'The questions remain the same but the answers are different.'"

Like the relatively stable fruit industry, the Department of Pomology has experienced few if any major disturbances or changes since its establishment in 1874.

Dr. Leroy L. Creasy '60 MS '61, himself a graduate of the department, said neither the students as a group nor their career goals have changed much in the 30 years since he was an undergraduate at Cornell.

"We are still a production service-oriented department, and we still get a lot of production-oriented undergraduates, probably in the same proportions we always did," he said. "At least half of our students, maybe more, are from producing fruit farms, and most of these return to their family operations. The rest are the usual mixture—some will go into chemical companies, consulting companies, companies that provide service to the fruit industry in one form or another; and an occasional student will go on to graduate school."

Dr. Oberly added that one noticeable change is in the number of female students. "Thirty years ago you just never saw a woman student in pomology."

Most of the pomology undergraduates come from New York state. Emeritus professor Louis J. Edgerton PhD '41 said, "We've always had a few students (in pomology) from Massachusetts, Pennsylvania, and Michigan, and once in a while someone from Connecticut or Ohio. Occasionally some come to Cornell to study pomology from more distant states, including Washington and Maine, but the majority of our students come from New York."

The opposite is true for graduate students, however. About half of the pomology graduate students are from other countries, and of the Americans, local students are the exception rather than the rule. Most come from other states and other universities.

Dr. Loyd E. Powell PhD '55 explained that this may be because most of the local students who come from a pomological background will not continue on in a graduate program, and of those who aim for careers in research, extension work or teaching and who will enter a graduate program, many opt for the experience of a different university for their second degree, a move which Dr. Powell encourages.

The number of foreign graduate students is no recent phenomenon. Dr. Powell noted that there have always been a lot of foreign students in the department at graduate level: "Our department has always been more national and international," he said.

Although student composition and
backgrounds are largely unchanged from 30 years ago, there has been an increase, Dr. Creasy noted, in the number of transfer students. The reason? The high cost of a Cornell education. The solution that many students have decided on is to take two years somewhere else, and then to transfer to Cornell for the final two years.

As for faculty, Dr. Oberly said with justifiable pride that, since the department was established, only three members have resigned to take positions elsewhere. There has been turnover, of course, but this has been due to retirements or deaths.

"We just haven't had people quitting to take jobs elsewhere. It's been good—it's led to a very stable department over the years. We now have primarily senior faculty members. In the next five or six years we will have a big turnover within the department. There are many of us in the age bracket that will be retiring, probably over a six-year period, so we will once again have a young department."

So what lies ahead for the next "generation" of fruit farmers and pomologists coming out of Cornell?

Most graduate students usually choose from careers in research, teaching or extension. If students have good training in the applied aspects of fruit growing, said Dr. Powell, they will generally be well-equipped to handle opportunities in extension work.

At the undergraduate level, for those that will not be going back to their family fruit operations, the businesses serving the fruit industry provide positions in marketing and sales, or as orchard or vineyard managers. More students than before will go into managerial positions in the industry, possibly because of the general "scaling-down" trend: there will be fewer producers, fewer suppliers. Some who take up managerial posts hope to save enough money to one day start their own operation.

"It's a lot harder to do this than it is to just wander back to your own farm, pick up a million dollars' worth of capital investment and continue with it," said Dr. Creasy.

But there are successes in managerial positions. Dr. Creasy gave the example of a student a few years back who joined a large corporation's farm in western New York. She is now Integrated Pest Management director, in charge of a "phenomenal" budget for pest control on more than 2,000 acres.

Dr. Oberly noted that students are increasingly interested in the areas of economics and finance, integrated pest management, viticulture and small fruit production. The interest in viticulture (grape-growing) in particular, said Dr. Oberly, started about ten years ago.

"Probably a third of our students are interested in viticulture. I've had a lot of job requests for people with background in viticulture and enology (wine-making). There are many small wineries scattered around New York state, and they've been increasing very fast. Every one of them has to have an enologist—most of these wineries don't want someone who is just a winemaker—they want someone who also understands grape-growing, because production and the quality of the grapes has such a tremendous influence on the wine itself. We could use a course specifically on wine-making."

Another problem, Dr. Oberly said, is that all the viticulture personnel are at the experiment station at Geneva. The current arrangement is that Dr. Robert Pool comes to Cornell to teach the one grape course that is taught every other year.

"It's an excellent course, but the professor can't be here throughout the year for direct contact with the students. I hope that sometime we can get a person here on campus qualified to teach a viticulture course. I think it will strengthen the program."

On the subject of courses, Dr. Oberly noted that many students are taking a large number of courses in agricultural economics. In fact, he said, "Many of them almost have a split major between pomology and agricultural economics."

"We try to counsel the students and get them into courses that will fit in with their career goals," he said. "If they specify their interest in pest management we lead them heavily into entomology and plant pathology."

What about the students from farming backgrounds? Why are they taking a degree in pomology if they already come from a family that owns and runs a fruit farm? As Dr. Creasy said, "They don't necessarily need to learn how to spray, mow, pick, plant or prune. Many of them know that already. Undoubtedly they will pick up new ideas or procedures that they haven't used on their own operations, and that's useful. They may take economics and learn what the future is supposedly going to bring and how to adapt to it financially. These things are very important, but I think they're a small part of the value of their education. The major thing is that they go away educated in a broad sense; educated in life, if you want to think of it that way."

Today's pomology students are very much aware of the importance of finance, marketing and sales, and of the environmental impact of their farming decisions. Pomology is not something they stumble into randomly. The students take their profession-to-be seriously, all the more so because, for instance, in tree fruit production, effects of decisions may last for 20 or 30 years.

"The annual crop-grower," said Dr. Creasy, "gambles from year to year, but the fruit grower gambles from decade to decade. It's a hard business. It takes all kinds."
Proponents of alternative energy resources are witnessing a revitalization in the concepts of appropriate land use in the form of permaculture. Permaculture concepts, new only in name, integrate human land needs with those of the environment, creating an almost symbiotic rather than exploitive relationship between humans and their environment.

Permacultural practices are designed to occur on a specific site. As people study a landscape and its vegetation, animal life and water resources, they develop a plan or design for the enhancement of the natural processes already happening on that land to meet the needs of future human habitation. The ideal plan is one that will meet the designated needs of people living on the land without deleterious effects on the land.

"Permaculture, as I see it, sets up a discipline that incorporates research from the last 20 years of appropriate technology," said José Barreiro, who during the last week of July and first two weeks of August, 1986, co-sponsored a Permaculture Workshop at his farm in Caroline, New York. "It is a way of developing interrelated technologies to look at the inhabitation of the earth, putting humankind inside of the natural world context, enhancing the prospects of the natural world to strive and thrive."

Permaculture is more than a side-interest or hobby to Barreiro, editor of Cornell University's "Northeast Indian Quarterly" magazine, published by the American Indian Program. Permaculture is a way of life.

The term "permaculture" was first used by Bill Mollison, an Australian who observed and was alarmed by the deterioration of the environment in his part of the world.

The first and foremost principle of permaculture is conservation. Reading landscapes is an integral element of practicing permaculture, entailing the interpretation of the design of the landscape to relate it to human needs, without the intense chemical usage that often comes with landscape development.

An example of reading landscapes focuses on pond or dam construction. The shape and contours of the land are studied, looking for natural depressions or areas where pooling of water already exists. The condition of the soil and its ability to hold water is studied to prevent water seepage and loss. The soil can then be altered slightly to compensate for any shortcomings. The design satisfies human goals within the constraints of the natural system, without abusing or over-exploiting the resources.
Another example of a permaculture practice is organic gardening, with a diversified group of food plants being grown. Intercropping and companion planting, such as planting corn, beans, and squash in the same area is practiced. Under ideal conditions, the corn acts as the pole for pole beans to grow around, and the beans provide the extra nitrogen for corn, through nitrogen fixing bacteria. The squash vines act as natural mulch and discourage predators. Berry bushes can also be planted to feed birds as well as humans. “Each element should, wherever possible, be capable of more than one function and conversely, each function should be performable in more than one way,” wrote Mollison in his book, co-authored by David Holmgren, Permaculture I (1981, Transworld Publishers).

Dan Hemenway, the permaculture instructor who visited Barreiro’s farm, lives in Orange County, New Jersey. Hemenway comes from a strong “grass roots” background, with much experience in homesteading. He was trained at the Permaculture Institute, which was organized by Bill Mollison. The three week summer course was attended by seven people (three from the Ithaca area) who wish to continue their studies and eventually become permaculture instructors.

“The idea behind the workshops is to get the students to know the landscape’s identity and encourage them to continue to study it beyond the three week session, through the cycle of the seasons. They will be checking in regularly and continuing projects on the land, working toward another workshop in the spring,” Barreiro said.

Permaculture ideas can be used in helping to develop a semi-homesteading economy, said Barreiro. The plan is to utilize the resources of people sharing a common ethnic, kinship or cultural network to recreate a lifestyle that uses the land in terms of food, fuel and housing toward less dependency on total cash economy.

“The concept, as I see it unfolding, is to incorporate the scientific with the spiritual,” said Barreiro. “In this day and age, where Native American people have undergone the rigors of western academic training but haven’t lost the sense of their native cultures in the process, they want to see things in the same circle of thought.”

Permacultural concepts are not foreign to people who come from a Native American tradition. The idea of land sustaining the people, and the people holding the land in deep respect and care, underlies the basic world perspective of most Native American communities and philosophies.

“In the long term sense, which is how you have to think with permaculture, I can even see it as helping to reincorporate older members of the family into doing more work in relation to child raising,” said Barreiro. “While the younger members of the community are doing the more physical work involved with homesteading, the older people take part in the development of the children. It can be a healthy, helpful family mechanism.”

The way of life that Crows Hill residents are trying to embrace is the idea of the interconnectedness of family and community to their land base.

“The concepts are not new. They have been a part of almost every world culture at one time or another,” Barreiro said. “Not only does the land sustain you, but you sustain it.”
THE RIPPLE EFFECT

by Carla R. Sunshine Koppell '88

There's madness in his method. Professor Richard Ripple excites his students.

"It is nice to know that there are opportunities out there to have a different learning experience, chances to see different approaches to teaching." Stacy Silverman '88 is speaking of Professor Richard E. Ripple of the Department of Education and his style and approach to teaching.

Ripple's method emphasizes a "self-directed, self-motivated, independent study program." Attendance is required at Professor Ripple's lectures where the broad-based learning takes place; everyone acquires a certain level of understanding of educational psychology. Where the difference in Ripple's approach becomes apparent is in the smaller class sections and the out-of-class assignments. Both of these are structured so as to allow the student to study those topics which interest them to the greatest extent. While reading is required, that reading is guided only by individual preference. Students are told not to do the reading just to get it done; rather, they should do the reading to get the point of it.

What is the prescription for success in this atmosphere? How do you get the student to be sufficiently interested in the subject to do the work independently? The keys are the ability to motivate and be motivated. Ripple feels that his role as the teacher is to define the parameters of the course and then to inspire individuals to want to do work within those parameters to enjoy the learning. "My goal is to get the students to continue to have an interest in the subject even after the class has ended," Professor Ripple commented.

There is however a second, underlying goal and that is to teach students how to learn and to get them to develop their independence. Ripple calls the process "an intellectual weaning away from dependency upon the instructor."

While Ripple believes that people do sort themselves into different groups within the class, he also believes that almost everyone gets something out of the experience. He seems to be right. Students, for the most part, have a positive reaction.

They feel that they are more motivated to do the work when given the responsibility; it becomes less burdensome and more enjoyable. Silverman, a student in Ripple's psychology class, summed up many students' sentiments when she commented "The responsibility is scary. At first you don't know what to expect ... but in the end there is a sense of greater preparation for independent study in the future."

While in large measure this is due to Ripple's own teaching style, he feels the method has applications in many different fields. The student's interest must only be fostered. This premise applies, in his opinion, to any discipline. "There is never one way to teach or learn ... teachers must work within their own personal style." Professor Ripple has modified and changed his style over the course of time. He feels that a person's teaching style evolves with experience.

One technique which facilitates stylistic and curricular modifications is In-Class Writing Exercises. These are small exercises which ask the students either for their opinion or something about their history. It is in this that the instructors in the course get a sense of the people they are interacting with. That is not to say that Ripple and his assistants cater to the students; they do not. They do, however try to emphasize those topics which are most relevant to the types of people in the class. Bill Altman, who has been a teaching assistant with Ripple for four years, emphasized the instructors' role as an information resource. He feels that gearing the information towards those students who are motivated makes learning fun.

No model can be perfect for all people at all times and even Ripple's philosophy continues to develop. "I'll keep going as long as they let me or until I get it right," says Ripple. But consensus seems to be that Professor Ripple is already doing pretty well. One student commented "it is nice to be given the responsibilities of an adult."
Cornell students have changed dramatically in the past 20 years from “wearing ragged clothes, long hair and beads” in the late 1960s to becoming “briefcase-carrying freshmen” in the 1970s, according to Ed Stewart, M.F.A. ’71, who has been an employee of Cornell University’s Mann Library since 1973. As for the 1980s, “Students’ attitudes seem more open and students are slightly more aware of political and social issues than students were six or seven years ago,” Stewart said.

John Gibson, who has a B.A. in political science from Dickinson College and a M.A. in philosophy from Temple University, started working at Mann Library in 1967 as a conscientious objector during the war in Vietnam. He went to library school for one year but decided that he was “happier as a nonprofessional in a library.”

Gibson said he enjoys working at Mann because he likes meeting new people, seeing new faces each year and training the student workers for their jobs.

“The late 1960s was a profound experience. I’d say the period from 1969 to 1971 was the hottest period. This campus was radical. Cornell as we know it today is 180 degrees different than Cornell was in the 1960s,” Stewart said. “Hippies were everywhere. Students were very politically involved . . . and Vietnam was the basis of protest. There was also a sense of separation between the blacks and the whites. There was even a section of tables in Willard Straight Dining Hall which blacks had unofficially appropriated for themselves,” he said.

“Whites seldom, if ever, crossed over the invisible demarcation blacks had drawn around this section.”

“‘There was also dissection between the ‘Freaks’ and the ‘ Straights,’” Gibson said. “Today if a student has very short hair or very long hair, it doesn’t seem to mean very much whereas in the 1960s those people hated each other,” he said.

As a result of the many protests, “There was a mass cutting of classes which prompted the faculty decision in the spring of 1970 to give S/U grades,” Stewart said.

“I was a grad student and Teaching Assistant and in 1971 my class was interrupted by at least three bomb threats,” Stewart said. “Buildings were pretty routinely evacuated in May of 1971,” he said.

“People were awed by everything,” Gibson said. Most students smoked pot often but used heavier drugs less often. The way that people viewed the world was derived from drug influence, he said.

In the early 1970s, the feeling about drugs was different than it is now, Stewart said. There was more of a religious aspect tied in with drug use. When students gathered to do drugs, they did so in a ritualistic fashion.

“We were partly conscious of the corniness . . . that what we were doing was childish, silly, stupid, and cliché. But at the same time we felt that we were doing something that had never been done before. Deep down we knew it was impossible to have a world where everyone loves one another and where everyone is open,” Stewart said.

“We were the kids from the frigid 50s and for us, the 60s decade was a true liberation,” Stewart said.

“The 1970s was a transition period. It was a kind of erosion of the 60s pattern as the 80s pattern began to form,” Gibson said. “If you asked me about the typical 70s student, nothing comes to mind.”

On the other hand, Stewart said that, “the most depressing, even shocking thing about the 1970s was the nearly total lack of transition. In a couple of years everything had changed. The straight-A-seeking, briefcase-carrying undergrads covered the campus and the few hippies were colorful anachronisms. The students of the 70s lacked sensitivity to political issues and were more concerned with careers. The very old, but 60s-renewed ideas that one attended college to acquire a liberal education, to study and think about ideas and values, to develop sensitivity to the ways of being and living outside of one’s career-track or ‘lifestyle,’ were discarded as impractical . . . as pointlessly idealistic,” Stewart said. “Also, the 50s fraternity/sorority phenomenon came back with a vengeance.”

According to Gibson the 70s was the “me” decade. He said people turned away from protests and the world to explore their inner selves. People became involved in disciplines of various kinds such as yoga.

In the spring of 1985, protests asking the University to divest itself of stock held in firms that do business in South Africa were a major source of conflict on the Cornell campus. “Students marching resembled the 60s students in their style. But they are a real minority and this is where I think the change is from a few years ago,” Gibson said.

Cornell students have made the change from being the hippies of the 70s to being the yuppies of the 80s. What trend will the 1990s bring to Cornell’s campus? Only time will tell.
Birds—inspiration to poets and artists, archetype to inventors and naturalists—occupy a unique place in natural and human history. Over the centuries, they have provided symbols, models, and sustenance for countless generations. Small wonder, then, that across the continent, today's bird-watchers number in the millions.

"There are an awful lot of people watching birds out there," said the executive director of Cornell's Laboratory of Ornithology, Charles Walcott PhD '59. "They are a valuable resource for the professional ornithological community."

Harnessing this resource is the focus of the Lab's ambitious Cooperative Research Program. Collectively, birders have amassed substantial amounts of information on bird populations; information that would be impossible for scientists to accumulate alone, and that may be useful not only in monitoring the status of hundreds of species of North American birds, but the health of the environment as well.

As the DDT experience will attest, birds are vulnerable to changes in the environment. Two decades ago, some populations of raptors, including the peregrine falcon, had declined significantly—unintentional victims of the indiscriminate use of the now-banned pesticide. Magnified concentrations of the chemical wound up in the birds' bodies by way of the food chain, and destroyed their ability to reproduce. "It was bad news for ospreys, peregrine falcons, and eagles," said Walcott.

By compiling and computerizing data gathered by volunteers, scientists will have comprehensive, long-term pictures of the distributions, nesting biology, and population dynamics of many species at their fingertips.

"We can see which species are declining and which are increasing," said Walcott, "and get a handle on what's going on in the environment." Interpretation of data provides researchers with indexes that Walcott explained are representative, and not complete, counts. For instance, the Program's indexes on Black Ducks indicate that their numbers have been steadily declining since 1949. "We are looking at hints and suggestions, not definitive answers. The numbers give cause to learn more about what's going on."

When combined with indexes from other studies, findings can give strong evidence on trends.

"It's an early warning system," said program director Gregory Butcher. "Birds are sensitive to habitat changes, pollution, toxic chemicals—environmental problems with big consequences." Continual monitoring of populations and easily-accessed quantitative data are valuable tools in combating what Rachel Carson called the "night of extinction." They can alert state and federal agencies involved in wildlife management to species in trouble and support measures, such as establishment of sanctuaries or hunting regulations, designed to protect them.

According to Butcher, there is much knowledge to be gained in the area of

Waterfowl rest and preen themselves on the shores of the 10-acre pond at Sapsucker Woods, home of the ornithology lab.
population biology. The Program can address questions that “can't be studied in any other way,” reported the Lab's Cooperative Research Bulletin. It will allow scientists to look at crucial factors like food supply, climate, competition, parasitism and predation that affect animal populations.

Cooperative research at the Lab began in 1965, the first year of its North American Nest Record Program. Today, the program has over 300,000 cards on the nesting habits of over 550 species—a boon for breeding biology. Ten years after its inception the Program added the Colonial Bird Register, a census of the numbers of waterbirds—gulls, terns, herons, and egrets—found in breeding colonies each year.

This register now stores over a quarter of a million records on 78 species. Since 1976, 140 researchers have requested data from this source. It is currently aiding the Laboratory's studies on New York's endangered Least Tern. Since these birds nest in colonies on open sandy beaches, they are extremely susceptible to disturbance by humans. Preliminary data seem to point to the success of recent conservation efforts. Their populations appear to have stabilized, but other action may be necessary to protect their habitats and ensure their survival.

The Program is now also responsible for computerizing information collected through three annual census studies sponsored by the National Audubon Society. One of these, the Christmas Bird Count which began in 1900, is North America's oldest and largest cooperative research project. Last year, 41,377 birders contributed their observations on early-winter bird populations across the continent.

The consolidation and computerization of these surveys would not have been possible a few years ago. Data had to be transcribed by hand and filed. The recent acquisition of personal computers, a database manager, and disc storage on Cornell's mainframe system from the IBM Corporation, and free computer time for three years from the University has changed all that. The Program's new capabilities will allow collection, organization, analysis and dissemination of greater quantities of information on a wider geographic basis.

The Cooperative Research Program is on the brink of discovering many of the mysteries of avian life. It plans to expand work with birders and researchers, agencies and organizations concerned with management and habitat enhancement, and corporations concerned with their impact on the environment.

Armed with all of these resources, the Cooperative Research Program may help to prevent many species from meeting the fate of the passenger pigeon.

By heeding what birds tell us about environmental conditions, the Program is guarding the delicate balance between the earth, wildlife, and man. "In wildness," said Thoreau, "is the preservation of the world."
Hungry for a tart red Cornell-grown apple? Or would Cornell-produced ice cream or maple syrup better satisfy your sweet tooth? One of the aspects unique to Cornell is the variety and quality of food produced on campus. From apples to eggs to sausage, Cornellians are making a veritable menu of foods produced on campus.

Cornell students either buy food for at least some of their own meals, or they rely on a meal plan, usually Cornell Dining. For those in the latter group, Christopher Nevole, purchasing manager for Cornell Dining, determines how much of what they eat is made by Cornell.

All of the milk drunk at the dining halls, obtained from vending machines, or bought in the Cornell Dairy Store came from Cornell cows. Most of it is from the Cornell University Teaching and Research Center dairy barn in Harford, NY (about five miles from Dryden). The rest is produced on campus by cows used by the New York State College of Veterinary Medicine for teaching purposes.

If any experiment will affect the quality of milk in an adverse way, the cow and milk are isolated and the milk discarded. Dave Brown, manager of the Cornell Dairy Plant, inspects the dairies regularly. "They are producing good quality milk out there," Brown said.

Although a lot of milk is not used, about 55 percent, or over seven million pounds produced by the two farms, is used on campus. The surplus is sold to Eastern Milk Cooperative where it is pooled with other milk and distributed. More milk is used on campus during the school year than in the summer.

"During the summer we lose 10,000 hungry mouths but the cows don't stop producing," Brown explained. Thus more milk goes to Eastern Milk Cooperative at that time.

While the University is in session, most of the milk ends up in the dining halls via Brown and the Department of Food Science. Most is plain; some arrives as bulk ice cream or other processed products. This pleases Nevole, because it makes his purchasing job easier.

"They produce a high-quality product and you can't do much better than having a convenient source for deliveries," Nevole said. "They produce a lot of special ice cream flavors for us, which helps us produce the maximum variety and quality for students. We are always working together."

Apples grown at the Cornell Orchards are also distributed to Cornell Dining, but not always.

"We try to get the best quality and the best price for our customers so we don't buy exclusively from any source," Nevole explained. "Whenever possible, we try to use Cornell goods, then we go to New York state goods."

Approximately one-third of the 30,000 bushels of apples grown a year become cider. Most of the cider is sold to the public at the Cornell Orchards on Route 366, and the rest goes to the Cornell Dairy Store. Most of the remaining apples sell as fresh fruit at the orchards, about 18,000 bushels worth. The 2,000 bushels left go to another location for processing, mainly to juice. A few apples end up in the vending machines in Plant Science run by the Pomology Club.

Only those not on the University dining plan can put real maple syrup on
their pancakes, since Cornell Dining does not use the syrup from Cornell’s two forests. One is in Lake Placid, NY, and the other, the Arnot Forest, is 18 miles south of campus. The Cornell Dairy Store sells about 95 percent of the Arnot syrup and 75 percent of the Lake Placid syrup. The remaining syrup is sold at the facility in Lake Placid or through a mail-order operation. About 1,000 gallons comes from the Lake Placid trees and about 500 from the Arnot forest, said Professor John W. Kelley, director of the maple syrup research extension teaching programs.

Small jugs of the syrup are sometimes given away at University meetings and to trustees and officials. The Statler Inn has used them as gifts in rooms. Jugs of several sizes are on sale in the Cornell Dairy Store throughout most of the year, as long as supplies last.

"We think it is a unique product," Kelley said. "It is a fine opportunity to get the University’s name out before the consuming public."

Those hungry for Cornell-produced eggs can only buy them at the Cornell Dairy Store. Most of the eggs Cornell chickens lay do not get sold to consumers. They are used in research programs both in the Department of Poultry and Avian Sciences and around the world.

"They are used first for hatching to maintain the flock, and secondly to support research. Any excess are provided to the Dairy Store where they are sold," said Dr. Rodney Dietert, Associate Professor at the poultry science department.

How many eggs are available to sell to the Cornell community depends on the number laid, which varies. For example, at least once a year the flocks are removed from the houses so that the houses may be cleaned. Those birds go to a market distributor and end up as someone’s dinner. Once birds are back in the houses, it takes a while before production returns to normal levels.

Cornell produces more than just breakfast foods and snacks. On a much smaller scale, Cornell produces meat and potatoes. The meat comes from pigs, cows and sheep slaughtered and processed in meat science classes and research. Some goes to Student Agencies, but townspeople and staff employees buy most of it in Morrison Hall as wholesale carcasses or cuts, according to J.R. Stouffer, Professor of Animal Science.

The sausage which goes so well with the Cornell produced eggs is made by the Round Up Club from Cornell beef cows and pigs. Club members make and sell summer sausage in the fall and Kielbasa in the spring.

The vegetable crops department sells very little of its produce, but people can buy potatoes where they are grown in Freeville, NY. Most potatoes are not sold because of the experiments done with them.

If you want to try some of Cornell’s own products, stop by the Cornell Dairy Store or the Cornell Orchards. From apples to eggs to sausage, you’ll find great tasting food and learn a little more about the College of Agriculture and Life Sciences at the same time.

by Mollie Zuckerman ’86
Research being conducted at Cornell on a species of primitive fish may, in the distant future, help some of the 175,000 to 225,000 Americans with spinal cord injuries regain at least partial use of their paralyzed limbs.

The fish being studied are lampreys—parasites which resemble eels and suck the blood of other fish. Tied with hagfish for last place on the vertebrate evolutionary ladder, the lampreys are valuable subjects for research because they can repair cuts in their spinal cords without aid in about 60 days.

Avis H. Cohen, PhD '77, a senior research associate in the Section of Neurobiology and Behavior in the Division of Biological Sciences, hopes to learn more about how lampreys repair damage to their primitive spinal cords.

She hopes her work will offer insights for researchers elsewhere who are working toward a possible drug treatment and physical therapy program for humans with damaged spinal cords.

Cohen, who has been working on lampreys for almost ten years, showed in previous experiments that the fish can function normally after nerve fibers in the spinal cord have been cut and allowed to regenerate. In her current study, she is attempting to show how exact the reconnections must be for the organism to function normally.

Knowing the importance of the "specificity of reconnection" is vital for any potential applications for humans. Scientists believe the fantastically complex human spinal cord could never be reconnected perfectly and, therefore, they need to know how close to perfection reconnections must be for an organism to regain control of paralyzed regions.

The lamprey research should tell scientists whether it is imperative to get everything perfect or whether it is sufficient to reconnect certain nerves and use physical therapy to teach people to compensate for misconnections or nerves left unconnected.

"In humans, it is not very likely that in the near future we're going to get much regeneration. If we do get some, it is not clear whether it will be specific reconnection or how functional it will be. The lamprey study suggests that, with less than complete recovery of the regenerated portion, you can restore function," Cohen said.

By removing the spinal cord from the lamprey and placing it in a bath of excitatory amino acids, Cohen and laboratory technician Margy Baker can record the patterns of output that would be sent to the fish's muscles if the cord was still in the body. According to Cohen, these patterns are similar to those produced when the fish is swimming, but are "less than perfect."

However, when the same experiment is done on an intact lamprey, it swims normally, Cohen said. Apparently, "it is able to take this less than perfect function, combine it with sensory input and produce the perfect output. The assumption is that it doesn't take full recovery to restore function because the animal learns to compensate," she said.

If the proper excitatory drug can be found for humans, the hope is to use injections to cause some partial regeneration of damaged spinal regions and to
use physical therapy to teach the patient to compensate. "With training, you should be able to teach the person to put it together," Cohen said.

Researchers at other institutions have been searching for the drug that "turns on" the human spinal cord. "It's not yet been completely proven humans have such a drug, but every other animal has it and there's no reason to believe humans don't," Cohen said.

Cohen noted that a combined drug and physical therapy treatment method would be "more direct and more natural" than other more-publicized treatments for spinal cord injuries. The media have reported recently on electrical impulse treatments which enable persons with paralyzed legs to ride bicycles. Cohen explained that these impulses must excite each individual muscle necessary for bike riding.

In contrast, the possible spinal cord treatment resulting from the lamprey study and other current research would activate only the nerve column, allowing it to send a natural pattern of signals to each muscle, Cohen said.

It is possible the two technologies could be used in conjunction in a treatment plan. Stimulation of the muscles could keep them from degenerating and keep joints from seizing up during the time between the onset of paralysis and the implementation of the drug treatment and physical therapy plans, Cohen said.

Cohen's lamprey research is only a part of a larger research project that involves mathematicians at Boston University and the University of Pittsburgh and a biologist at Brandeis University. The U.S. Air Force Office of Scientific Research is funding the project for the next two to three years under a grant which is intended to establish a Center for the Study of Rhythmic Processes centered around Boston University.

Cohen explained that the Air Force is interested in the patterns of output from the lamprey's neural system because the patterns could produce data about how complex networks and circuits work. This information has applications for artificial intelligence—a sphere of technology which includes advanced computers that can "think."

Cohen said she is "uncomfortable" working on research that could be used to produce smarter weapons. "I'm caught—the military is the department that has the money for research and development," she said. "The research is not classified and it's not restricted in any way and it's research I'd be doing anyway. This is just one way of diverting some of that military money into peaceful uses as far as I'm concerned—especially since it has real positive medical applications," she said. "I must admit I'm still not terribly comfortable, but it's a necessity of the present [federal] government."

Cohen said she has plans to try to get the government to change the way it allocates research and development money in the federal budget. "I want to try to encourage the government to change its allocations to put the money back into the civilian sector," notably the National Institute of Health and the National Science Foundation. "The civilian sector is directed by people who are more in touch with the societal needs," Cohen said.

Prof. Miriam Salpeter PhD '53, chairwoman of the Section of Neurobiology and Behavior, echoed Cohen's concerns about the military's establishment of research priorities in biology. "I think it's an unfortunate situation," she said.

However, in Cohen's case, "this is work she would have done anyway. She's not changing anything because of military requirements," Salpeter said. "She's got a good start on many problems of motor control and potentially regeneration," the chairwoman said, adding, "I'm quite enthusiastic about it."
WHAT'S causing FOREST DECLINE?

Have we contaminated our environment so much that trees are rapidly dying, causing a syndrome known as forest decline? Scientists at the Boyce Thompson Institute for Plant Research at Cornell University have recently become one of the several research projects conducted around the country investigating this question. BTI scientists suspect that acid rain and ozone may be involved in this inexplicable syndrome.

Red spruce and sugar maple trees interest scientists the most because both species show decline symptoms and are economically important for the Northeast. Red spruce provides paper and lumber. Maple trees in New York and Vermont are the heart of the nation's maple syrup production.

Investigations to find the culprits of forest decline are also conducted in the southern Appalachian forests, southern pine forests in North Carolina, Georgia and Texas, and western conifer forests in California and Oregon. These research experiments are all being done independently of one another and by different research organizations.

Several factors thought to contribute to forest decline include poor soil, wind, heat, drought, disease and air pollution. Other possible factors include heavy tapping of the sugar maple and a general change in climate leading to less favorable growth of trees.

Past studies of agricultural crops have provided researchers with some information. These studies give evidence that ozone in the lower atmosphere—the product of the interaction between sunlight and the emissions from internal combustion engines and power plants—reduces the process of photosynthesis in trees and agricultural crops.

An eight year study concluded in 1985 of agricultural crops showed that acid rain—containing nitric and sulfuric acid, also products of fossil fuels burned by power plants, metal smelters and automobiles—had no obvious long term effect on the yield of agricultural crops, according to BTI scientist Larry Heller.

Ozone, however, because of its threat to the life sustaining force of photosynthesis, has proved to be detrimental to crop production. "Losses range from five to fifteen percent, depending on the crop and the region," said Robert Kohut, BTI scientist. Yield reductions in crops grown in the Midwest alone due to ozone's tampering with photosynthesis are now estimated at between $2 billion and $4 billion annually, according to Kohut.

Though acid rain has not proved detrimental to crops, scientists have developed a theory linking acid rain to forest decline. Trees need nitrogen for their growth. Acid precipitation in the form of rain, snow, sleet, hail and mist contains significant amounts of nitrogen. The nitrogen fertilization theory proposes that trees, especially those in the higher elevations which are constantly exposed to acid mist, grow past the stage when they should shut down for the winter. The facts that trees seem to be dying of frost damage and that trees at higher elevations show greater damage than those lower down, support this theory.

Heller, involved in one of the three independently run research projects at BTI, studies trees in chambers which allow him to control their exposure to acid precipitation. He exposes them in a misty atmosphere four nights a week, about the same exposure trees in higher elevations receive. Sponsored by the U.S. Forest Service, this project...
will run for three to four years. Heller said this project will observe the effects of acid mist on red spruce and balsam fir.

In another investigation sponsored by the U.S. Forest Service, Leonard Weinstein, director of BTI's Environmental Biology Program, and Ruth Alscher, BTI scientist, observe the effects of ozone on red spruce trees. Weinstein and Alscher work in collaboration with faculty and researchers Curtis Richardson and Richard Di Giulio from Duke University, Bob Ekart from the University of New Hampshire, and from Cornell University, Jean Chabot and Elaine Birk. They are interested in how ozone affects processes such as photosynthesis, respiration and metabolic repair mechanisms. According to Alscher, trees may show metabolic changes in winter hardening, leaving them unprepared for winter and left victim to winter's harsh conditions.

Three million, eight hundred thousand dollars of the total $4.4 million in grants go toward a five-year project studying the effects of both ozone and acid rain on the red spruce and the sugar maple. Sponsoring this investigation into the effects are the Electric Power Research Institute, Niagara Mohawk power company and the Empire State Electrical Energy Research Corporation. The utility industries emit sulfur dioxide and nitrogen dioxide which may contribute to the problem of acid rain, but their contribution of air pollutants to produce ozone is negligible, according to Kohut.

The potential independent and interactive effects of ozone and acid rain will be evaluated. The growth, nutrition and physiology of the trees will be closely examined throughout the study. Timothy Fahey of the Department of Natural Resources at Cornell will be conducting the plant and soil nutrient studies.

One important aspect of the research is the development of computer models to help predict how red spruce trees will fare as they grow under the long-term impact of acid rain and ozone. These models are being developed in cooperation with David Weinstein of the Ecosystems Research Center at Cornell University.

All the experiments take place in greenhouses and in open-topped chambers especially designed for this type of research at BTI, which allow the environment of the trees to be controlled. The studies use seedlings and twelve-year-old trees obtained from a forest in Maine.

The researchers will investigate the effects of acid rain and ozone under both laboratory and outdoor conditions. They will keep watch over the trees and determine exactly what harm occurs to them and how.

Through their careful analysis of the problem, scientists hope to come to a better understanding and gain some clues to this longstanding problem of forest decline in eastern North American forests. They hope to someday offer suggestions on whether ozone and acid rain have any effects on these trees being studied.

Like a trail left by a criminal, one can see the damage done to our forests, but why and how are the questions these scientists must explore before they can catch or control the culprit.

by Elizabeth C. Parker '88
FINANCIAL AID and TAX REFORM
FOR BETTER...AND WORSE

by Judith Anne Yeaple ’88

Will financial aid be a remnant of the past? Will alumnae and friends of Cornell continue to make donations? Carried on a wave of rumors and confusion, the next tax reforms have left many Cornell officials and students wondering what financial obstacles they will have to face in the future.

Approximately 43 percent of the average student’s school budget is covered by financial aid. Any major reductions or cutbacks in student assistance programs could therefore easily wash away any reasonable plan for secondary education. If approved, just how serious will the tax bill threat be to Cornellians?

What does it mean for Cornell undergraduates?

“I would break the tax bill effects into two categories, direct and indirect,” explained Susan Murphy ’73, dean of admissions and financial aid at Cornell. “The indirect effects include changes in the charitable giving to Cornell, and a possible cap on Cornell’s borrowing. These are changes the student won’t see immediately.”

“There are at least three direct effects, however, which the student should know about. First, any financial aid exceeding the tuition will become taxable,” she said. Ironically, it may be that low-income students will feel the greatest burden of this provision as they receive the largest scholarship support.

“In addition,” Murphy continued, “students will lose the deductibility of interest on their loans.” This will happen gradually, so that current students have time to adjust their budgets. In 1987, for example, a student will be able to deduct 67 percent of his or her interest expense; this will decrease year by year to 10 percent in 1990.

“It will make us look carefully at financial packages. We don’t want to put anyone in a tax jeopardy.”

“The other tax bill change will affect family loans for education,” Murphy explained. “Again, they will lose the deductibility of interest payments.” However, parents can work their way around this by borrowing against the value of their home because mortgages will remain one of the few tax exempt loans.

What about graduate students?

If undergraduates should be irritated at the tax bill changes, graduate students should be irate. According to a recent article in the Cornell Chronicle, more than 2,500 graduate students (both in Ithaca and at the Graduate School of Medical Sciences in New York City) will face increases in their tax liability. Because graduate students usually cover their expenses through stipends and large grants, they will be better targets for taxes on money for living expenses than undergraduates. One Boston financial consultant expects this to raise the cost of a diploma by 15 percent. This increase will not only discourage less wealthy students from earning advanced degrees, but will also further dampen the popularity of lower-paying careers, such as teaching.

How will it affect the University?

Students need not look to Cornell for any financial lifesavers. The University too has found itself swimming in deep water. One wave of gloom has been the change in the rate of the tax deductability of gifts. This may pose major difficulties for Cornell, which received $114.23 million dollars last year. Donors have always been able to deduct the value of their gifts from their income taxes. Now, they will have less favorable tax deductions for the appreciation on certain types of gifts, such as securities, real estate, and art works.

Furthermore, donors who don’t itemize their deductions will find they cannot deduct their charitable gifts under the new tax bill. And, as the max-
imum income tax rate falls in the next two years from 50 percent to 28 percent, tax form itemizers might find large deductions less beneficial than before.

Most officials agree, therefore, that these changes could seriously affect private support for the University, thus forcing it to discover new sources.

Some however, like Carol O'Brien '68, remain hopeful. O'Brien, Director of University Development, stressed, "People don't give because of the tax advantage. There is a relationship—whether it's professional or emotional—that gives an institution some meaning for them."

If the tax bill is an influence to donors, O'Brien believes, it will create a surge of activity before the law takes effect.

"Before the end of this year we'll see a lot of giving. The complexity of the tax bill will make it hard for people to decide what their financial situation will be."

The result? Future student aid, as well as campus projects and research programs, may not be as stable as previously, until donors assess the full impact of the tax changes.

But as one of Cornell's pecuniary sources dries up, so does another. The University currently relies on tax-exempt bonds provided through the New York State Dormitory Authority, which saves Cornell between $5 and $7.5 million annually. The new tax bill will limit the amount of bonds an institution can hold to $150 million, $100 million less than Cornell holds now. If this money source also dries up, some officials have hinted, the University may have to consider increasing tuition, one of the only dependable revenue sources left.

Schemes and Solutions for Students

Does this mean prospective students should favor the "Wants Ads" over college applications? Many people don't think so.

"I never underestimate the power of the financial community to study these tax laws and find ways around them," said Jeanne Hogarth, a consumer economist with Cornell Cooperative Extension, adding, "Tax evasion is illegal; tax avoidance is okay."

As an example, Hogarth also described a single-payment life insurance plan available now with tax-free returns, capable of generating a substantial amount of money for those who can afford to tie up large sums of money for years. "The sad thing is that only parents with higher incomes will be able to take advantage of these creative solutions," Hogarth added.

Susan Murphy believes Cornell will do its best to ease the tax bill's strain on students. "It will make us look carefully at financial packages. We don't want to put anyone in a tax jeopardy."

More than anything else, the tax bill changes will create a lot of confusion. Because there are so many other factors involved, loss of a tax exemption in one area might not be as damaging as a tax savings would be helpful in another. But if actual dollars and cents aren't lost, Cornell officials are still upset.

"What concerns me is the message it gives. It's not a positive sign for higher education from the federal government," Murphy said.
“Facetime and a place to eat.”

To LeNorman Strong, Director of Willard Straight Hall, these words epitomize how the Cornell community perceives the oldest and most grand of its campus student unions, which celebrated its 60th anniversary in 1985. With the many student services and activities found in the building, it may seem mean-spirited to label Willard Straight Hall, (or “the Straight” as it is popularly known) just a place to meet people. However, it was with this very intent that the building was constructed in the early 1920s.

The hall is a memorial to Willard Dickerman Straight ’01, who died of influenza days after the end of World War I in 1918. A perceptive man, Straight saw the Cornell of his time to be lacking a basic human need that would make the university a more enjoyable place to live: the need for friendly student interaction, the need for fun. Outside of fraternities, there was no place on campus where students could meet just to be social.

In his will, Straight directed his wife Dorothy to do “such thing or things for Cornell University as she may think most fitting and useful to make the same a more human place.” With the forceful help of Prof. George L. Burr ’81, and Leonard K. Elmhirsh ’21, then a leading student figure on campus and later Dorothy Straight’s second husband, the form of Willard Straight’s bequest to the university gradually was shaped into a student union building.

Dorothy Straight took an active role in the design of the new building. Working closely with William Delano, the building’s planner, Straight sought in the student union “beautiful surroundings conducive to the making of admirable characters.” She saw it that the building contained many large rooms with comfortable chairs, a browsing library, a music room, and a room for snacking. Also among the rooms added to the plans were a large, “distinguished” meeting room and a theatre.

Although it met with some resistance from the Cornell community at the time, the Straight was designed for both men and women from the beginning. The detractors to this policy were somewhat pacified by the provision that women had to enter the building through a different entrance than the men. Once inside, the women would be free to wander to any part of the building, as long as they kept out of the designated “MEN ONLY” lounges. Given the dubious standing of female co-eds at the time, their access to the building was quite an achievement and due, in a large part, to Dorothy Straight’s strong advocacy of women’s rights.

The building’s location on the slope overlooking West Campus was chosen for its accessibility to students. It is near to Uris Library, which most students visit often, and it is on the way home for most non-fraternity students walking from campus.

After years of planning and construction, and with decidedly little fanfare, Willard Straight Hall opened its doors to students in November of 1925. In her dedication speech a month later, Dorothy Straight expressed her dream of what Willard Straight Hall would mean to Cornell. “It is our hope that Willard Straight Hall may play a part in cementing really great friendships—friendships between men and women, between faculty and students, between men of all groups, races and nationalities.”

Her words still ring true today. Willard Straight Hall was immediately embraced by the Cornell students, and to this day represents the primary social gathering place on campus, “the epicenter of facetime,” as one Straight-goer explained it.

Seven thousand people, or about one-third of the Cornell population, walk through the swinging wooden doors of the Straight each day. Some of them will be watching a musician perform, or asking for information on campus events at the Straight Desk. Many will be meeting people in the Straight’s murred lobby, or eating meals in the building’s two dining halls. In addition to facilitating these activities, the Straight operates the Big Red Barn, a luncheonette behind the Andrew D. White House; and the Alfalfa Room, the only snackbar on the College of Agriculture and Life Sciences’ campus.

As the 60th Anniversary is now behind them, the emphasis is on renewal for Willard Straight Hall. Along with continuing to offer new programs and activities for students, the Straight is planning construction of a large windowed terrace area on the west side of the building.

Renewal will only help the Straight serve the Cornell community in providing the means for social interaction, the reality to Willard and Dorothy Straight’s dream.

Facetime and a place to eat, indeed.

by Bill Schove ’87
A Grape Opportunity

Kevin Barr '88 of the Department of Pomology, has been selected to receive the Nelson J. Shaulis Summer Scholarship, which is provided by the Nelson J. Shaulis Fund for the Advancement of Viticulture. This fund was established by grape growers and processors on the retirement of Nelson J. Shaulis Ph.D. '41 from the Geneva Station.

As the recipient of the scholarship, Barr worked with researchers at the New York State Agricultural Experiment Station at Geneva, on a project exploring the impact of a vine management and insect and disease control program. Specifically, he studied the grape berry moth and botrytis bunch rot development in Aurora grapes. The project is an interdisciplinary one, and involves faculty from the departments of Entomology, Plant Pathology and Horticultural Sciences. During his summer in Geneva, Barr also had the opportunity to meet with other researchers at the Station and with technical representatives of the grape and wine industries.

Faculty Achievements

L. Dale Van Vleck PhD '60, an animal geneticist at Cornell, has received an honorary degree of doctor of science from the University of Nebraska.

A professor of animal science in the College of Agriculture and Life Sciences, Van Vleck was cited for the "breadth and scope of his contributions to the science of animal genetics." A member of the Cornell faculty since 1962, Van Vleck is known internationally for his expertise in animal genetics and in its application in evaluating dairy cattle.

The Cornell scientist has previously received other awards in recognition of his work, including the 1983 J. L. Lush Award from the American Dairy Science Association, the 1972 Animal Breeding and Genetics Award from the American Society of Animal Science and the 1974 National Association of Animal Breeders Research Award.

Professor of agricultural economics Dana C. Goodrich MS '56, PhD '58 has received the 1986 Edgerton Career Teaching Award.

Goodrich, a member of the Cornell faculty since 1958, coordinates the undergraduate program for the Department of Agricultural Economics. He teaches courses in marketing using the "Futures Market Game," which gives students the opportunity to participate in commodities trading.

In the last 25 years, Goodrich has advised more than 500 undergraduates, and in 1983 he was selected by graduating seniors in the College of Agriculture and Life Sciences to receive the Professor of Merit Award.

The Edgerton Career Teaching Award includes a recognition plaque and a gift of $1,500 to the recipient's department, to be used to enhance its teaching program.

Forty-one newly elected members were inducted at the ceremony, along with 35 charter members who became members of the society at other universities.

Established in 1905, Gamma Sigma Delta is dedicated to recognizing academic contributions to agriculture by students, faculty and alumni. It has 42 chapters at universities throughout the United States, Puerto Rico and the Philippines.

Schenkel Memorial Fund Set Up

Cornell University has established an endowment fund, the Herman R. Schenkel Sr. Memorial Fund, to be used to benefit students and support research projects in the Department of Floriculture and Ornamental Horticulture.

The fund was established with a gift from Mr. and Mrs. Herman R. Schenkel Jr., both members of Cornell Class of 1954.

Schenkel Sr. '27 earned an industry-wide reputation as an outstanding rose grower, managing several greenhouses in New England after graduation. He founded H.R. Schenkel Inc., a greenhouse operation in Lynchburg, Virginia in 1952, which is now operated by his son and grandson.

David O. Watkins Jr. has been named director of Media Services in the College of Agriculture and Life Sciences and the College of Human Ecology. He succeeds D. Christopher Whittle, who is now on the faculty of the Department of Communication.

Watkins, who served as associate director of Media Services for four years, has 20 years of experience in media planning and marketing, graphic design, publication, displays and other promotional materials.

He will continue in his role as director of Cornell's Education Television Center, media project director of Cornell Cooperative Extension's public awareness efforts and director of a videotex demonstration project to investigate the use of videotex equipment in undergraduate instruction.
Breaking into The Business World

As a minority student, one faces discrimination and stereotypical behavior when it comes to the business world. Coming from an isolated or homogeneous secondary school, minorities have to make a transition into an environment where they make up a small number of the student body.

From this transition, one must make another transition into the business world. Minorities make up an even smaller number in the business world. There is a chance that one will be the only minority in that business section.

At Cornell there is an organization set up and designed for minorities interested in the business world. This organization is known as the Minority Business Students Association (MBSA).

The goal of the Association is to prepare members for a successful entrance into the business world through various means. MBSA teaches effective interviewing skills and resume writing skills. There is also exposure to professionals in various business fields and dissemination of information regarding business trends and needs.

Derek Ross '87, President of MBSA, who joined the spring of 1984, said "Without MBSA I would not have performed very well in interviews. Personally, it has given me exposure to opportunities in business and indirectly it helped me get an internship this past summer.'"

"I was able to obtain an internship in sales with Procter and Gamble. At first I went through a week of sales training seminars. From there I was given a territory consisting of 60 accounts in which I sold advertisements. The advertisements were displays of Procter and Gamble's products. I was also given the assignment of figuring out a way to increase the overall shelf distribution. And at the completion of my internship, I conducted a sales presentation for some of the managers," Derek stated.

One member just joined because she participated in an internship this past summer. She felt that with this experience she could give helpful hints on resume writing, how to go about researching for different internships, and finally, applying for internships.

Feleciai Favroth '87, majoring in business management, joined MBSA as a freshman because she believed in time it will help her career. "By joining MBSA as a freshman, I was able to fully understand the extent that MBSA can help me. It forced me to write and rewrite resumes, think about my future goals and how to go about obtaining these goals, and it gave me contacts with companies for recruiting purposes when the actual time comes to search for a job. As a freshman, I was also able to meet older MBSA members. And now when they come back to Cornell, for one reason or another, they inform me about job opportunities in the business world, and about different professions growing in the business field," Feleciai commented.

"With the joint efforts of my education and MBSA, I plan to utilize my experience and contacts to obtain the type of job that I desire," she added.

Many of these contacts come from conferences sponsored by MBSA. Last semester there was a conference with alumni and faculty, who talked about interviewing, dressing, and how to apply oneself in the business world. In November 1986 MBSA is holding a conference which will consist of alumni who work for businesses. The speakers will pick a topic of interest or which they think others should be informed about.

MBSA is also putting together a resume book this semester consisting of juniors and seniors in any major. The book will be distributed throughout the many business companies interested.

From speaking to these members, it is apparent that the members are ambitious and positive about now and the future. Looking at past resume books and looking at past events sponsored by MBSA, it is clear that MBSA provides contacts for students as well as an important net-work system among the minority community.

The future looks profitable for this group of Cornell students. They hope to break the bank, aided by the Minority Business Student Association.

by Michèle D. McCullom '87

New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.
Cornell Under Construction

Cornell Countryman
VOL. LXXXIV  DECEMBER, 1986  NO. 3
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It is the policy of Cornell University actively to support equality of education and employment opportunity. No person shall be denied admission to any educational program or activity or be denied employment on the basis of any legally prohibited discrimination involving, but not limited to, such factors as race, color, creed, religion, national or ethnic origin, sex, age, or handicap. The University is committed to the maintenance of affirmative action programs which will assure the continuation of such equality of opportunity.

CORNELL COUNTRYMAN
December 1986 Volume LXXXIV Number 3

ABOUT THE ISSUE
The multitude of buildings on the vast Cornell campus includes representatives of various architectural styles that have been popular during the University's 121-year history. In this issue, we look at that architectural history and at the current flurry of campus construction, which is improving many of the older buildings and erecting new representatives of 1980s architecture. We escape the rumble of construction equipment to appreciate the beauty of Cornell's herb garden and glasshouses and meet with students involved in academic, athletic and cultural programs. Finally, we pay tribute to several award-winning faculty members.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy '53, Linda Myers '64.
fortifying
NUTRITION

by Elizabeth C. Parker '88

Running to class, already five minutes late, I discover I must go around fifty yards of fence and use the door at the other end of Roberts Hall. On my way out of class I can not take my usual short cut across the grass to Tower Road because Stone Hall has yet another fence around it extending all the way down to the sidewalk. Comstock Hall does not exist on the ag quad anymore, at least not with that name. That building will become a computer center. There is a new building across from Teagle which has been named Comstock. To enter Savage Hall one must enter from the lower level.

I do not really mind all these small inconveniences, for besides giving me more exercise, I can see Cornell is growing and though some inconvenience may exist now, I am sure it is all leading to improvement in the way the College runs and the research it can do and in what it can offer students.

Renewal and growth—that is what it's all about and Savage Hall demonstrates how everyone will benefit from the construction. Savage Hall houses Cornell's Division of Nutritional Sciences, the largest academic department in the United States devoted to the study of human nutrition. The division, a joint unit of the New York State College of Agriculture and Life Sciences and the New York State College of Human Ecology, also houses the headquarters of Cornell Cooperative Extension programs in food and nutrition.

Currently Savage Hall does not have the space to accommodate the programs within the division. The research rooms are overcrowded and outdated.

The expansion and renovation partially financed by a grant from the J.N. Pew Jr., Charitable Trust, began several months ago. The $1.9 million award enabled the division to start work on the renovation of Savage Hall and on the addition of a three story north wing which will double the current space available for lab research.

The Pew Trust supports nonprofit organizations in the broad areas of health care, education, arts and humanities, and human services. Joseph N. Pew Jr. was a 1908 Cornell graduate for whom the engineering quadrangle at Cornell was named.

Previous grants from the Pew Trusts have helped in constructing the Cornell Medical School, the computer center, the engineering instructional facility on computer aided design, the geological sciences building, and equipment and materials for the veterinary college and Cornell libraries.

The new laboratories will allow researchers to use advanced techniques involved with cell and tissue culture, biotechnology research and enzymology. Researchers will be able to progress in their studies of heart disease, cancer, obesity and to increase their basic knowledge about nutrients. The renovations will provide more space in Savage Hall for the division's nonlaboratory programs, such as consumer education, nutritional surveillance, and international nutrition.

The projected cost of all this construction is $8.9 million. Just over half of this has been raised. In addition to the money from the Pew Trust, other funds for the project come from the late Frances Johnston, professor emeritus of nutrition, from the Division of Nutrition human ecology and agriculture and life sciences alumni.

The new wing, providing 15,000 square feet of space, should be completed by the fall of 1987. The renovation of Savage Hall should be completed by the summer of 1988.

The problems caused by the crowded and outdated facilities will be solved by this construction. Researchers will have more room and better materials. The other programs will be able to function in a bigger area. Benefits from the construction are great compared to the inconvenience it causes to those trying to find their way into and around buildings.

The current elbow rubbing with construction workers will give Savage Hall the growth it needs to continue as one of the pioneering establishments in the United States for the study of human nutrition.

This three-story addition to Savage Hall is expected to be completed in the fall of 1987.
Palm trees surrounded the area. The temperature was a pleasant 75 degrees. On the right, a huge coconut palm towered above and on the same side was a banana plant. There were rows of orange, grapefruit, ponderosa lemon, and pineapple plants. Coffee was also being grown. But where is this paradise? How can I find it? Surprisingly enough, this paradise is located right on the Cornell campus.

The Bailey Hortorium Conservatory is one of six greenhouses in the Plant Science greenhouse consortium and contains 3,000 different plant species. All the plants are being listed on a computer by their BH (Bailey Hortorium) number and scientific name. The computer listing will tell the name of the plant, the location of the plant in the conservatory, the year the plant came in, and the history of the plant. This will make it easy for anyone who is interested in knowing if the conservatory has the plant.

The five smaller greenhouses were rebuilt in the 1930s after they were dismantled from a location downtown and moved up to where they are presently located, in front of the Plant Science building. The large greenhouse, which is divided into two rooms, the student house and the palm house, was built in the late 1930s.

The large greenhouse is divided into two different rooms in order to maintain two different temperature settings. The student house is the cooler of the two, where the temperature during the day is 70 degrees and where the temperature at night is 58 degrees. The palm house has a ground bed plant area where palm trees, banana plants, and large coconut palms reach the ceiling. A large fern collection is another attraction that should not be missed. For these tropical plants to flourish in the untropical climate of Ithaca, a day temperature of 75 degrees and a night temperature of 70 degrees must be kept.

"The large greenhouse is primarily used for teaching. Every year approximately 3,000 students use the conservatory for educational reasons," said Bob Traphagen, who is the supervisor of the consortium. "The conservatory is used not only for biology, floriculture, ornamental horticulture and pomology classes, but also for drawing and descriptive writing classes. The conservatory is widely used," he said.

In the older, smaller greenhouses, the pomology department is growing grapes, peach trees, and apple trees. The plant pathology department is raising garden material such as corn and beans for experiments and teaching purposes in the smaller greenhouses as well. Also, the plant biology department is growing several different vegetables for a garden demonstration where a display will be set up.

Traphagen came to work for the Bailey Hortorium Conservatory in 1970. He became interested in working with plants when he was in high school. "I
built my own greenhouse and grew bedding plants for local greenhouses,” he said. He graduated from Alfred with an Associate and Applied Sciences degree.

Besides Traphagen, four other staff members are required to maintain the greenhouses. One student waters the plants on the weekends, and the rest of the workers are employed full time to water, fertilize, and prune the plants.

The funding for the consortium is divided between the Dean of the College of Agriculture and Life Sciences and funding from New York state. The labor is funded by the Dean and Traphagen’s salary is funded by the state. The cost for the rest of the facility is based on a square foot charge of 10 cents per square foot per month.

The conservatory staff is taking care of the greenhouses for eight different departments, according to Traphagen. “In order to save money it was necessary to join efforts... to join a common force,” he said. The eight departments involved with the conservatory are: the Bailey Hortorium, plant biology, genetics and development, plant breeding, pathology, pomology, agronomy, and floriculture and ornamental horticulture.

Traphagen said experiments presently taking place in the greenhouses involve a number of different scientists, including plant molecular biologists conducting research on the molecular genetics of the plants.

Future plans for the consortium include taking all the greenhouses down and building new greenhouses, growth rooms, and teaching rooms. The large conservatory may be taken down and changed to a regular conservatory, which would be round and have a domed roof.

As for the older, smaller greenhouses, they too would be dismantled and in their place a two-story building would be placed. Ideally, the lower story would be growth rooms and teaching rooms, and the roof would contain greenhouses constructed with aluminum frames and high intensity lights. “All of the renovations would cost an estimated $4.5 million,” Traphagen said. With the new construction, it will be easier to maintain accurate light and temperature levels that the plants require for maximum growth.

Everyone is welcome to come learn in the glassroom. The conservatory is open to the public six days a week from 8:00 a.m. to 5:00 p.m. Greenhouse tours may be arranged for larger groups if given advance notice.
If the room in the stables were a painting, it would be a study in browns. The saddles that cover the walls would be shades of tan. The tack hanging from every beam and hook would be dark and rich. A study in browns, except for the center, where a young woman in denim blue leans over a saddle rubbing oils into its leather. All the light in the room hits her face, yet what emanates from her is not a reflection. It is the glow of a person who is where she belongs doing what she loves best.

Tracy Durham hopes to be in the Olympics ... in twenty years. She wants to compete in the dressage events. Dressage is the execution by a horse of complex maneuvers in response to barely perceptible movements of a rider's hands, legs, and weight. In a sport where most winners are in their fifties and sixties she is a mere child. Although the 2008 Olympic Games may seem far, to this dedicated equestrian they are close to tomorrow. She is an intelligent, talented woman who knows what she wants, and will stop at nothing to achieve her goals.

Durham, '87, is an animal science major in Cornell University's College of Agriculture and Life Sciences. She chose Cornell over the University of Vermont, even though the latter offered her a possible academic scholarship. "I wanted to come to Cornell because it was more challenging than Vermont. I hope to go to veterinary school... preferably Cornell's. I figured if I went through the agriculture college's curriculum for pre-vet students I would have a better shot at veterinary school," said Durham.

She has definite plans. "I want to be involved in small animal surgery or equine medicine for dressage horses. The small animal surgery is exciting because of the high degree of difficulty. It requires manual skill which cannot be done well without a good eye and precision control with your hands," explains Durham. Both channels of veterinary medicine are difficult ones to pursue, but Durham is ready for the work. "I have enough background in it to know perfectly well what I'm getting into—I want the challenge," said Durham. The sparkle in her eyes tell just how much.

Durham is also a talented artist, and she considered following a career in advertising or design. She still paints with oils and watercolors, and has a business in which she utilizes her artistic skills. People from all over the northeast send her pictures and short paragraphs on their horse's idiosyncracies, from which she draws a cartoon of their horse from the information. "If I were a practical person, advertising is probably what I should have pursued. But art comes too easily for me. Science has always been more of a struggle," admits Durham. As a result she pursues art more as a hobby. The easy way out just does not seem to be her style. She laughs and shakes her brown mane of hair, "I guess I'm just a sucker for punishment."

She has had her share of injuries. One such injury occurred when Durham fell off a horse onto an already bandaged knee. The result of the fall was fairly severe nerve damage, and crutches for five weeks. Durham said that it wasn't terrible being off a horse for awhile. Her definition of 'awhile' was two days. "I had to crutch out to my horse and have my friends lift me on," laughed Durham at the memory. "Of course you take a beating when you ride, but you keep on going. I always assume that the law of averages catches up to you if you do anything long enough," said Durham.

She has ridden ever since she was four years old. Now that she is studying at Cornell, she has less time to ride than previously. Durham makes up for her lack of time by using 30 hours out of every 24-hour day. Her alarm clock rings at six-thirty and she heads to Cornell's stables between seven and ten.
She attends her classes until one-thirty and heads off to work on her honors project, or her independent research. She is back at the stables before dinner to teach private lessons. Totally she spends 15 hours a week teaching lessons, and approximately 25 hours riding. How does she find time to do her school work? “It all gets crammed in. I do most of my work early in the morning, and late at night . . . if I haven’t collapsed,” said Durham.

She still has time for “fun.” That is what she calls her involvement on the equestrian team. Durham is president of the team. “I joined because it is low key and there is no competition between team members. We compete so much here, for jobs over the summer, for jobs when we leave Cornell, for graduate school—I certainly don’t need one more thing,” Durham said.

What does it take to balance the rigors of a Cornell education with a sport? The only answer is dedication. “Dedication is the desire to see something through even if it’s not easy. If you don’t care enough to do that, even if other things are coming and going, and if you cannot fit your desire into your schedule . . . then you are not dedicated,” said Durham. She cannot be sure she will make it to the top as a rider. However she has planned for that possibility by getting a top notch education. She also has a career goal that is extremely important to her. “I want to canter down the Olympic centerline,” said Durham in a hushed voice. She has the dream, the desire, and the dedication. Tracy Durham will “go for the gold” in the 2008 Olympic games, but if she doesn’t receive a medal it won’t matter . . . she is already a winner.
A. D. WHITE'S GIFTS from the HEART

With time comes all emotions, and any institution with the age, population and history of Cornell University can claim witness to them. Many such emotions have been made permanent in some way, whether carved initials on a desk or a monument to the memory of another. One man in particular has left us an account of his personal aspirations and tragedies in ways Cornellians can see every day.

Andrew Dickson White, a founder and first President of Cornell University, donated a number of unobtrusive monuments, each of which held a particular meaning to him.

White served as President until 1885, and many of his gifts were not donated until after that time. One of his first personal contributions was the gateway framing Eddy Street, the original road to campus. It was William Sage, son of Uris Library bequeathor Henry Sage, who first took steps in the construction of the gate, but "Within twenty days," one historian wrote, "A.D. White, to whom the aesthetic interests of the University have always strongly appealed, came forward with a gift for the erection of the gateway." To further enhance the entrance way of the University, Henry Sage donated the stone bridge arching over Cascadilla gorge.

William H. Miller, a Cornell student and architect, was chosen to design the gate. Selecting a combination of white Ohio sandstone and reddish Berea limestone, Miller stacked the two in alternate layers, forming mirror columns. He joined them with an intricate wrought-iron arch. Formally named White Gateway, the thick layers of dark stone prompted the students' dubbing: "Andy White's chocolate layer cake."

White's inscription on the west column reads, "So enter that daily thou mayest become more learned and thoughtful. So depart that daily thou mayest become more useful to thy country and to mankind."

Regarding this, White later reflected, "The work to which I had devoted myself for so many years... I have now seen successful beyond my dreams. Above all, as I have seen the crowd of students coming and going, I have felt assured that the work is good."

This bell was donated in 1894 by A. D. White while he was an ambassador to Russia.
There are interesting stories behind each of the gifts that A. D. White gave to Cornell.

White left other gifts as more crystallized forms of his deepest emotions. In June of 1892, Ex-President White and his wife Helen took a "very charming walk" behind Uris Library and found a new and very beautiful view of the valley and lake. They donated a bench to be placed at this site. In a startling premonition, the couple inscribed, "To those who shall sit here rejoicing, To those who shall sit here mourning, Sympathy and greeting; So have we done in our time."

That same day, June 12, 1892, a Cornell sophomore drowned in Fall Creek. Days later, their first child, Hilda, died "in a sudden convulsion." She was not even a year old. And within the days shortly following, the United States Senate granted President William Henry Harrison's nomination of White as U.S. Minister to Russia. Of mourning and rejoicing, White bore much that summer.

The bench, worn and initial-carved, still sits atop Libe Slope. And the view is still good.

White's stay in Russia was eminently successful, and when he returned in 1894, he brought back with him a large bronze bell weighing approximately 360 pounds. Circumscribed with three messages, one in Russian, one in English and another in Latin, the bell is adorned with figures of Jesus, the Virgin Mary, the Chalice of the Holy Communion, and the Ten Commandments.

Around the bottom edge circles the Russian statement: "This bell was molded in Moscow in the foundry of Andrei Dvirtyevitch Samgin 10th century P. 15 Feb." The date can only be estimated, because the Slavonic alphabet, which it is written in, is obsolete. Historians place it between 1881 and 1894, as there are medallions on the bell of czars Alexander I to Alexander III.

The English message at the top of the bell marks the presentation of the gift. "Presented to the Library of Cornell University by Andrew Dickson White, Minister of the United States, Moscow, March 16/28 1894." The curious date allows for the difference in the two Russian calendar systems, one used by the previous Czarist regimes, and the other used by the outside world.

The third inscription, chosen by White reveals his devotion to the University, and his wish to be considered no differently on his return than on his departure: "Their skies they change, but not their souls, who rush across the seas." (Quoted from Horace's Epistles.)

Although never to be rung in the usual fashion, the bell was placed in the President White Memorial Room of Uris Library, and fastened to a wooden frame. For years it was struck in this stationary position to signal the nightly close of the library. Former students describe the sound as a "booming resonance." The noise was apparently so loud and startling that the librarians resorted to warning the students of the closing time bell by ringing a smaller, less jolting bell beforehand. White's bell later cracked after a particularly robust warning ring, perhaps fortunate for today's dozing scholars.

There is a final monument which serves as a daily reminder to the ideals and dreams of Andrew Dickson White: his statue. Made by Karl Bitter and financed by Henry R. Ickelheimer '88, the statue was unveiled in 1915. It was placed in front of Goldwin Smith Hall so that his figure overlooks the three original buildings of the arts quadrangle: Morrill, McGraw, and White. The object of harmless spoofs by fun-loving students, frosted with notorious Ithaca snows and a black shadow in the nighttime lights of Goldwin Smith Hall, the statue has silently watched more than 70 years of grief and joy among Cornellians.

So had he felt in his time.

by Judith Anne Yeaple '88
THE CORNELL ENSEMBLE

ARCHITECTURAL HARMONY 
OR DISCORD?

by Carla R. Sunshine Koppell '88

A. D. White and Ezra Cornell were certainly visionaries when they conceptualized Cornell University in the 1800s. Starting with a mass of land and a single building, Cascadilla Hall, they facilitated the development of the world renowned university which exists today.

In some ways, however, White and Cornell were also idealists. They built and expanded the campus with little regard to topography, continuity or long-range planning. Perhaps that is the reason why Cornell, until recently, made little attempt to follow a long-range construction and expansion plan. "Since its inception, Cornell University has been built without a 'master plan'. We have continued for over a hundred years to develop the campus a building at a time." This is part of the explanation that Peter Trowbridge, Coordinator of the Landscape Architecture Program, in the College of Agriculture and Life Sciences, gives for the lack of architectural continuity on the Cornell campus. "I think that Cornell has always been confused, from the very first buildings. There are 100 years of remarkable buildings here on campus that have not had a clear sense of direction," Trowbridge adds. Certainly the predominating view is that direction has been lacking. Associate Professor Leonard Mirin, Graduate Faculty Representative of the Landscape Architecture Program agrees, "It is unfortunate that planners have been so short sighted." But he believes that to condemn planners would not be fair.

"Change in accordance with the times, and building to meet the needs of the academic community all add to the university's mystique. They add a sense of modernity, progress and advancement. You would have to have been a genius to be able to predict and work with the growth of this University over time," Mirin adds.

But how has expansion affected the face of Cornell on an aesthetic level? On the arts and sciences quad we have had some interesting developments. Morrill, McGraw, and White halls all face the outside of the quad, towards Library Slope and West Campus, because they were originally designed to be gazed upon from the town below. Additionally, Sibley Dome is located at one corner of the quadrangle when it was originally intended to be the centerpiece. Trowbridge attributes this to lack of foresight as related to topography and the construction of the arts quad. Mirin believes it accentuates the dynamism.

Individual buildings further complicate the architectural structuring. Uris Hall, a source of continuing conflict, is a prototypical example. Certainly it is of a different genre. Trowbridge believes that "Uris is not part of the ensemble. It sits on and establishes a corner, but it is forboding and uncomplimentary. It is the only building on campus which sits on a platform resembling a truncated skyscraper." While Mirin might agree with Trowbridge that Uris Hall is ill-conceived he would rather look at structures "as sculptures representative of a given style. Perhaps that makes Uris somewhat acceptable...?" As a result the aesthetic value becomes important to varying extents.

In the agricultural quadrangle, inconsistencies exist which are similar to those in the arts quad. Roberts, East Roberts, and Stone Hall all face Tower Road rather than the interior courtyard. In the last few years more fundamental questions have arisen in relation to the courtyard. Cornell has chosen to sacrifice some of the historic architecture to provide for necessary space. "When the history of the university is examined I think that what you find is that you are starting to attend to technology with use of the courtyard. Stone Hall is not a good building, not an architectural model, and not particularly beautiful. As
a research institution space is being created without destruction of the themes underlying Cornell’s architectural structure," says Trowbridge. Maintenance of themes takes priority over individual buildings.

Progress and planning do standardize accommodations, though. And it is Mirin who feels that "Some continuity must exist. The restoration committee must realize that a building’s adaptability should be considered. Comstock’s restoration as a computer facility has attempted to work within the style of the original structure." Another element of the dynamism at Cornell arises from its ambiguities and eccentricities. Buildings such as Uris Hall, the Johnson Museum or Helen Newman Hall all exist as aberrations because of their placement.

There is, Trowbridge has found "a long, though not an unusual history of unplanned architecture at Cornell." The problem with Cornell "is that the spatial structure and the landscape are beautiful but everything is placed with a different orientation. In the last five years there has been a movement towards examining the campus at large. I hope the days of haphazard planning are over; that we will now have buildings constructed that are part of 'The Cornell Ensemble'."

Ensemble is an interesting term to use to describe a campus which, at first glance, seems to be composed of buildings offering little continuity or architectural interaction. Closer examination reveals that Cornell, though poorly planned, offers both thematic consistency as well as a historic portrait of architecture through the ages.

"Towers and quadrangles are integral elements of the ensemble which emphasize Cornell’s majesty." Mirin points notably to the McGraw Hall tower and McGraw Tower as well as the tower which used to exist on Sage, and the domes on Roberts Hall and Sibley.

The use of quadrangles is a signature of Cornell’s. From the first plans issued by White and Cornell to proposals surrounding Comstock (formerly Academic II) and Mudd and Corson halls, the quadrangle has remained as a landscaping element to create space. "I think that Cornell is built around quadrangles. Historically relationships between schools have been emphasized through quad arrangements." Trowbridge noted that even the construction plans behind Comstock Hall include an internal quadrangle.

Academic II and the projects surrounding its completion are only one small portion of the construction projects planned for Cornell. In all, there are over thirty major changes taking place in the architectural landscape of the university. There is some concern as to what the effect on the ensemble will be. It is Mirin’s sense that "While elements of ambiguity and surprise help to support and form the mystique of Cornell, we must preserve the large open spaces and access to the landscape in order to create and maintain the "Ivyness" of the campus. In the case of the quad and Academic I we must take care not to ruin the venerable quality that exists."

Trowbridge doesn’t think that Cornell’s style can continue unhampered in light of constant construction. "I fear that there are not enough visionaries. Today too many people say 'Let’s get it done, let’s make it functional, and good and economical.’ There should be free space, with quad buildings open. Thank goodness for the gorges! They set the tone as sort of idyllic, nature at its best. Gorges far and away separate us from other campuses and offer a natural entry; they allow us to confront the high level of architectural diversity we are met with. To close off the open spaces and limit access to the environment could suffocate campus."

An examination of the architectural changes can be approached from several perspectives. As a study, individual buildings render, quite accurately, periodic themes giving dynamism to the campus. As aesthetic entities they can overwhelm one another. Either perspective you take indicates that care and foresight are necessary for the preservation of THE CORNELL ENSEMBLE.

Cornell University’s campus in 1905 and 1975. A study in expansion and growth over the years.
THE VISION
Beginning as a single building, Cascadilla Hall, Cornell University has grown and expanded dramatically. What exists today is a beautiful study in architecture through the ages. From the ornate towers which crown the landscape to the austere design of Comstock Hall history has been recorded. The many periodic styles represented on campus all interact to produce what can truly be called ‘The Vision on the Hill.’
When the stage curtains rise at Cornell's Performing Arts Center in 1988, a decades-old dream will crystallize. At last the University will have a locus for the Department of Theatre Arts, for the students who enroll in its classes and participate in its productions, and for the audiences who flock from the campus and the larger community to enjoy its varied repertoire of drama, film, and dance.

The University has long recognized the need for a performing arts facility. In 1979, Cornell's Council of the Creative and Performing Arts issued a statement that pointed out the inadequacy of the present facilities on campus and recapitulated 50 years of unrealized plans to remedy the situation.

Yet the dream moved closer to reality only a few years ago when a College-town site was chosen and the Board of Trustees selected James Stirling of London, one of the world's premier architects, to design it. In 1980, Stirling was awarded the prestigious Royal Gold Medal, a distinction previously conferred on architects such as Walter Gropius, Buckminster Fuller, and Louis Kahn. When Stirling was picked, Trustee Austin H. Kiplinger '39, chairman of the Advisory Committee for the center, remarked, "It is gratifying to have a project on the drawing board that can add an exciting dimension to Cornell and to Ithaca in the '80s as the Johnson Museum did in the '70s.'"

The five-story complex, featuring a loggia, garden, and tower, will overlook the 140-foot deep Cascadilla Gorge at the College Avenue entrance to Cornell, and will provide views of the campus, the city of Ithaca and Cayuga Lake.

Adjacent to Sheldon Court and to Cascadilla Hall, where a century ago, the University's first drama club was formed, the facility will house a 450-seat proscenium theatre, a smaller "flexible design" theatre, and dance and acting class studios to teach undergraduate classes. It will also contain administrative and faculty offices, seminar rooms, scenery and costume shops, special craft rooms, a film forum and editing rooms.

These features will consolidate performing, teaching and administrative spaces for the theatre arts department, which is presently experiencing a "geography problem" according to chairman Bruce Levitt. The main office is in Lincoln Hall, where insufficient space requires faculty members to share offices, the dance program is in Helen Newman Hall, quite a hike away, classes are dispersed throughout the campus and the main theatre and scene shop are in Willard Straight Hall. "The performing arts center is bringing it all together—coordination, cross-offerings, inter-disciplinary work," said Levitt. "It's making things possible that were not possible before."

Richard P. Korf PhD. '50, professor of mycology in the Department of Plant Pathology and former chairman of the theatre arts department, agreed. "The center will have a very large cultural impact on campus. It will make changes in what we're able to do and the way that the department will be able to operate."

Levitt said the department will converge on the center "as soon as it is occupiable." Before the number of productions that can be offered is known, he predicted a "shakedown period of, minimally, two years" because all of the equipment has to be brought in and made operational and "It takes a period of time to see how the building operates. We don't know, for instance, if we can rehearse for one production while another is being staged. . . It's guesswork until we live in the building for awhile."

Eventually, performances by departmental classes, Theatre Cornell and the Dance Concert will be offered, as well as presentations by the Pentangle Film Series.

The center will emphasize intimate and medium sized events. Cornell wisely avoided what Levitt called the "jack-of-all-trades, master-of-none kind of large hall."
The much-awaited Performing Arts Center, scheduled to open in 1988, promises to change the course of theatre arts at Cornell. This model shows the center overlooking Cascadilla Gorge.

From the production point of view, the center is far superior to the facilities currently available. David Feldshuh, artistic director of Theatre Cornell said, "It will physically enable us to do more things. We'll be able to do the kinds of productions we can't do in Willard Straight."

Levitt characterized it as a "dynamic building with lots of interesting potentials in the ways it can be used educationally and artistically." At the center's groundbreaking ceremony two years ago, President Frank H. T. Rhodes said Cornell's theatre arts people "are no longer limited by facilities, but by the extent of their vision and their talent."

When the department moves to its future Collegetown address, Levitt foresees new directions and great expansion. "The center is serving as a catalyst for us to rethink our undergraduate offerings and cultural offerings to the community." The latter may include a training institute in collaboration with the National Theatre of Great Britain, increased involvement of guest artists and scholars, and expansion of Theatre Cornell's community outreach program. Feldshuh calls this "important social theatre," drama that speaks to critical issues like suicide and rape prevention and "integrates the whole theatre process in bringing people together."

In addition, Levitt believes it will enhance the new Resident Professional Theatre Associates program, which brings in 15 to 20 major guest artists to work with young professionals who have completed their MFA degrees. These artists teach undergraduate courses and are instrumental in the direction of departmental production. This year, for example, one of the guest artists will be Anthony Cornish of the National Theatre of Great Britain, who will instruct and direct Two Gentlemen of Verona in spring, 1987.

It's quite an ambitious vision we're working toward," Levitt said. "The center will be a place where the academic and professional interests of the theatre can meet and profit from one another in a very rich way."

When construction is completed, Feldshuh believes the center will "send reverberations throughout the campus by inspiring scholarships, discussions and new perspectives... It will increase our potential, our visibility on campus, and our national presence."

Today the Performing Arts Center is unifying the University and Ithaca; it is an important element of the city's Collegetown revitalization project.

Tomorrow it will enrich the life of the whole community and, as Ithaca's mayor, John C. Gutenberger said, "It will make Ithaca a must-see on America's cultural landscape.

by Carolyn Shea '87
Most of the current construction at Cornell is intended to benefit current and future students, faculty and staff, but campus planners have not forgotten about the University's alumni.

Alumni who venture back to campus in a few years will be able to congregate in a new multi-million-dollar alumni and admissions center overlooking Beebe Lake.

This new structure, which will house the Office of Alumni Affairs and the Undergraduate Admissions Office, will mark the entrance to central campus via the Triphammer Bridge as "The gateway to Cornell," proclaimed former Provost Keith Kennedy MS '41, PhD '47.

It will be a visitors center where alumni and families of prospective students can begin their day at Cornell, he said. There will be an information desk to provide directions and details about activities scheduled for alumni or prospective students, he said.

"We've also indicated to the architect the need for a sizable amount of space where people can stop after having driven quite a distance and just relax while their son or daughter is meeting with admissions officers," Kennedy said. "This area would also be used for luncheons or dinners for alumni or student groups," Kennedy said.

The small Alumni House, which currently overlooks Fall Creek gorge at the intersection of Thurston Avenue and East Avenue, will be razed to make room for the center. Construction is expected to begin in the spring of 1988.

It is too early in the planning process to know whether neighboring Noyes Lodge will be left standing. The Cornell administration would like to see the small structure incorporated into the new building rather than demolished, Kennedy said.

James D. Hazzard '50, director of the University's Office of Alumni Affairs, said, "It is important that we have a center to which returning alumni would want not only to visit, but to use. If they had meeting facilities, reception facilities and dining facilities, it would be an additional reason for them to come back."

Alumni Affairs needs the added room offered by the new building for its operations because space is at a premium in the current Alumni House, Hazzard said.

"We house a lot of activities and a lot of people. Currently, we share space with the Cornell Alumni News, two alumni regional directors, and the Cornell Adult University," he said.

The coordination of such alumni activities as reunions, Homecoming and individual college events like Alumni ALScapades, has become a much greater task in the 20 years since Alumni Affairs moved into Alumni House, Hazzard observed.

Cornell continues to add 3,000 undergraduates and 1,000 graduate students to the ranks of the alumni every year, he noted. "Therefore there are more services to provide and more activities to design to accommodate alumni interests," he said.

John C. Sterling '59, director of alumni affairs for the College of Agriculture and Life Sciences, said the planned center will be "a focal point" for all alumni returning to campus. It could be a central location for information about alumni activities in each of the colleges, he said.

The new center probably will not have facilities large enough to house larger ag college alumni events like Alumni ALScapades, but it could provide space for small meetings of alumni, Sterling said. Some of these smaller meetings are now held in classrooms on the ag quad or at hotels in Ithaca, he noted.

The College's alumni, however, should have meeting areas big enough for large gatherings when Academic I is finally built, Sterling said.

Plans for Academic I, which is to be located on the west end of the ag quad, include open spaces for large social gatherings, a big lecture hall and a dining hall, he said.

For the admissions office, the new
visitors center at the gateway to Cornell is a very attractive prospect, according to Nancy Hargrave Meislahn '75, director of University undergraduate admissions.

"It's something to get very excited about," she said. The new center will make the admissions office better capable of hosting prospective students.

The large open area that Kennedy has proposed will be "Cornell's living room" where prospective students and their parents can feel more at home, Meislahn said.

In addition to the information desk, Meislahn said she has also envisioned some kind of "high-tech playroom" where visitors can view videotapes about the University and have access to CUINFO, Cornell's computerized information network.

"The new center will be a true reflection of the quality of the University," Meislahn said. The admissions office struggles to project Cornell's "world-class image" from its current cramped facilities in a former fraternity house on Thurston Avenue, Meislahn said.

The new center will provide needed space and a location closer to central campus. Campus tours will originate from the center, she said.

"We'll have a tremendously persuasive program for visiting students when the center is completed," she said, adding "We in the admissions community wish there was some way to put the construction on a faster track."

According to Kennedy, funding for the alumni and admissions center is included within a larger project that also involves the restoration of Beebe Lake, and the construction of a new building for the Office of University Development on an undetermined plot near the lake.

Gil Ott, director of University development operations, said the development staff is anxious to be together again in a single facility. Currently, the office has 67 employees in a former fraternity house on University Avenue across from the Baker dormitories and 30 people in Sage House on East State Street in lower Collegetown.

Centralizing staff in one location would enhance communication and allow for more cost-efficient operations, Ott said.

A small group of anonymous donors has offered "a sizable amount" of money for the construction of the two buildings and the restoration of the lake, Kennedy said.

The entire project will likely cost between $12 million and $15 million so funds will be needed to supplement the gift, the former provost said.

"Alumni have a lot of interest in University admissions and in restoring Beebe Lake so fund raising is feasible, and will occur," Kennedy said.

According to Kennedy, $500,000 of the contribution from the anonymous donors has already been allocated for the dredging of Beebe Lake.

Large amounts of sediment are being relocated from the lake bed to the shoreline in an effort to increase the lake's depth to about four feet. An island in the middle of the lake is also being reconfigured to hasten water flow and thereby reduce future sedimentation.

After the admissions and alumni center is finished, Kennedy said Cornell will do extensive landscaping around Beebe Lake to integrate the building and its surroundings.

The architect for the admissions and alumni center, Richard Meier of New York City, visited Cornell in October 1986 and met with administrators who provided him with detailed breakdowns of space requirements for the building.

Meier is now working on a schematic arrangement to show administrators the planned configuration for the new building. If the Cornell administration approves, Meier will proceed with the design phase and produce working drawings for the construction contractors, Kennedy said.

Once construction is underway, it will be a relatively short time until Cornell has its first new "gateway" since Eddy Gate was erected in 1893. It will also not be long before the University's alumni and prospective students have a marvelous new facility they can visit and enjoy whenever they come to Cornell.

The alumni and admissions center will be built on the plot currently occupied by the Alumni House (at the left) near the northern end of Triphammer Bridge.
Many students come to Cornell University with some competence in a second language. But it is difficult to speak a second language fluently when the language is not used often. For those interested in having an environment which enables them to use their second language often, the Language House was developed.

The house which is in Anna Comstock House dorm, consists of students who are supervised by resident native speakers who are language coaches and discussion leaders. Students live in one of four sections depending on whether they speak German, Mandarin Chinese, French or Spanish.

To become a member, one must fill out an application and then be interviewed. As members enter the language house they must renounce the use of the English tongue at the doorstep and speak only French, Spanish, Mandarin Chinese or German except when speaking with members of a different language group.

There are many activities shared within the house. The members participate in the sharing of meals five nights a week, screening foreign films and documentaries, organizing lectures, and subscribing to foreign periodicals. The magazines and newspapers usually stimulate discussions of issues in the language the students are speaking. This provides students with a common interest to learn in a relaxed and friendly atmosphere. Megan Greene, a graduate student seeking her masters in Asian studies, said she likes living there because it is a unique dorm. “Here people care about what they study. It is nice to learn why they care about the Chinese language and those things affiliated with the language and compare it to my reasoning. We have a mutual interest,” Megan said. One of the added extras of living near the German speaking people is observing them interact with each other and watching what they do, to learn and enhance

Deen Atwell '89 and Grace Eng Yee '88 are both members of the Spanish House.

Playing around with a camera (from left to right): Pascal Peron MBA (French native speaker), Scott Gunther '90, Elizabeth Van Wambeke '88 (French native speaker), Parinaz Zantoshy '90, Isabelle Gerard '90, and Patricia Levy '89.
their German.

Ole Rummel '89, is one of the German native speakers. When asked why he chose to live in the language house, Ole replied, "My aim in life is to be an ambassador. I see myself representing Germany at Cornell." He also added, "I might as well speak my native tongue and help others at the same time. We are learning, growing and sharing beyond our academics in a close knit group. We have a common aim and link which entails learning the German language."

Many students become part of the Language House because it gives them a chance to practice a language before heading abroad, while others stay there after returning from time overseas to share their intercultural experiences, and some just simply want to keep up their language skills.

Chris Merkel '89, a mechanical engineering student, took four years of German in high school and spent four months in Germany. He decided to become a member to help further his education in the German language. Chris stated, "I like everything about it; the people, the friendships formed, getting together and doing things as a group and also learning about the German culture. I even learned some Chinese.

"So far the program has helped me become fluent in German plus it has helped me in my German language class, with tutoring always available," Chris said.

The only person with a complaint is Giles Shih '89, a microbiology major. "I wish people were not so busy. This way we could do more things together, as a group and as a dorm," he said. During his freshman year, Giles noticed his fluency in Chinese deteriorated through lack of practice. "Now I am reimmersed in the language which I really needed," Giles stated. "But what is even better is that it has strengthened my weak spot, my writing."

Since the Chinese and German programs were added this year, they have been praised by students. Another additional program is the Faculty Fellows program. One or two faculty members participate in dinners and other activities. Not only have the language house programs increased but the enrollment has doubled this year from the previous year.

Elizabeth Newton '88, encourages more people to get involved. She said, "There is always something going on. And there are the added benefits, like a close community, supportive people and a social atmosphere. But as a Resident Advisor I dislike people getting into the program and not being committed," Elizabeth stated.

Scott Gunther '90, a government major said, "My opinion of the language house is 'sort of' a controversial issue. It is small enough to make good friends, there are plenty of activities to participate in and I am learning practical French. On the other hand I miss a 'typical freshman experience' and I meet fewer people. But then again the advantages to living in the Language House far outweigh the disadvantages," Scott concluded.

The Spanish speaking people decided to consolidate their opinions of the Language House. They agreed that the house has given them a good chance to improve their fluency in Spanish and learn different accents of the language. One girl added, "I have improved 100 percent in Spanish." It is a program that has different people with different talents and yet a common interest binds them together. Steve Angladé '89, said, "It is like a community where everyone shares a little of themselves."

One girl shouted, "By living here I realize I have another career option. I now have the option of applying overseas for job opportunities."
"Somewhere in this world, I want my Indian peoples to be heard. No matter how small a group they are, every one of them has the right to be who they are."

Phillip Deere,
Muskogee-Creek
Medicine Man
Fourth Russel Tribunal, 1980

Education, in the words of the acting director of the American Indian Program (AIP) at Cornell University, Ron LaFrance ’85 is something that takes place all through life, every single day. Education should give you the experience and point of reference from which you can face the issues in front of you. "But most importantly," LaFrance said, "education depends on you."

The AIP is designed to provide a unique interdisciplinary base for understanding the past, present and future of American Indian people. The unique goal of this program, as written on the program's brochure, stresses honoring traditions, developing respect, nurturing trust and supporting human rights while educating one another. The program was founded in 1981 by the American Indian Affairs Committee and consists of about 70 undergraduate and graduate students from throughout the University.

While the courses within the AIP are primarily directed towards non-Indian students, the program acts as a strong support service for the American Indian students at Cornell. "One of our biggest priorities regarding American Indian students is to get them home intact so they can fit back into their communities," LaFrance said. He referred to an expression—"brain-drain"—describing the process where the best young minds leave their Indian communities to get a college education. Once this is achieved, they rarely return home. Though this process might sound very natural to an American, it is very different for an American Indian. "We as American Indians are very attached and have developed a strong bond with our community. It is difficult for us to leave the community and fit into the 'working world.' After all, how many American Indian attorneys, doctors or businessmen do you know?" LaFrance asked. He said the goal of the AIP is to try to find an institution within the American Indian community that can benefit from the students' skills and interests. If, on the other hand, the American Indian student chooses not to return to his or her community, the program will support this decision too. "We try to offer social, emotional and financial support to students so that they will succeed with their education. If we can get them back home, all the better."

One of the most important objectives of the AIP is to work with the American Indian communities in New York state. "This program is not about Indian communities but about working with Indian communities," LaFrance said. Being situated at Cornell, a highly respected Ivy League institution, and in the ancestral lands of the Iroquois Indians, the AIP has many channels to work with. The students taking courses through the AIP are from different colleges at Cornell. LaFrance said many of the students are involved in work-study programs and independent research projects which contribute to the American Indian communities while educating the student. The work-study
students work with scientists and educators from different fields at Cornell to try to provide solutions to some of the problems, such as ecological and environmental, that American Indians are faced with. In this sense, the AIP works as a tool to provide answers to problems in communities.

A communication major and a student in the AIP, Russell Maracle '86 produced a prize-winning video documentary on environmental problems in New York state Indian communities. "Projects like Maracle's," LaFrance said, "not only serve as a profitable educational experience for the student, but this promotes the notion to other students that they can do the same thing. I believe in making the most of one's education and not, by any means, limiting oneself."

Another unique component of the AIP is a magazine it publishes called the Northeast Indian Quarterly. The magazine began as a small publication in 1984 under the name Indian Studies. In January 1986 the magazine changed its name to the Quarterly and expanded its format. The magazine's editor, José Barreiro, said the Quarterly is recognized as one of New York state's major Indian magazines. "It's a publication devoted to the widest possible discussion of Iroquoian life and culture, and it is by this very nature, a diversified product designed as a spectrum of topical sections on economic, literary, cultural, artistic and educational themes." Rather than being a magazine about Indians, the Quarterly is a general topics forum, edited from a regional, indigenous world view.

"The magazine poses questions such as the origins of culture, questions of economic development, government and the environment and invites its readers to view an Indian perspective on these issues," Barreiro said. Carolyn Shea '87 served as an intern for the magazine and said, "The Quarterly is an important voice in the community and opens much needed discussion on topics such as toxic waste, education and health." The associate editor of the Quarterly, Stephen Fadden '88, said the magazine presents the Indians' perspective of the world in terms of human, animal and plant life. "A major part of the magazine is devoted to discussion on advanced technology. Modern technology is being used in ways that are seriously endangering the environment. It is easy to hold up your hands and say there is nothing one can do about it. Many American Indian people, however, have not given up. We still have the mentality to improve our environment," Fadden said.

The magazine has a committee consisting of seven faculty committee members who oversee the general parameters of the publication and 5-10 student interns. The Quarterly has a variety of contributors from Cornell and Indian communities in the northeast and nationwide.

As with any new publication, its staff members, contributors and readers are looking for ways to improve the magazine. LaFrance sees the next four to five years as exciting ones for the AIP and the Quarterly. "Our program is expanding and bringing in lots of new students. As we get more students, we get more diversity and skills to contribute to the program."

Fadden wants to see a wider variety of courses offered dealing with the perspectives of today's American Indian. "Our philosophies are changing every day as the world around us changes and education must keep up with this." Shea thinks a larger staff and more courses could be added to the program but realizes that the AIP, like many other small programs, needs more funding in order to make these changes.

LaFrance said he believes the program, given time, will expand its courses and staff and will continue growing in a positive direction. His philosophy is, "We can do whatever we believe we can do." With a philosophy like that, you are bound to succeed.
HERBS ROOTED IN CORNELL'S HISTORY

Built into the walls of the raised garden beds and into the walls that surround the Robison York State Herb Garden is a silent monument to Cornell University's history and beginnings in the Ithaca area. The stone used to construct the walls and foundations of the garden was recovered from historic buildings in the area, including stones from Ezra Cornell's farmhouse. Two 180-year-old wrought iron gates at the north and south walls of the garden and colonial style split-rail fences at the east and west sides also help to remind visitors of early New York state and Cornell history.

In more recent times the one-acre herb garden was once a school playground for Forest Home children. Since 1974, when the garden was dedicated, instead of watching children grow, the acreage has been watching plants grow.

Visitors do not need a general horticultural background to enjoy the garden because each bed is arranged by theme, with the plants labeled by scientific and common name and an explanation of the significance of the plant.

"We have a very broad definition of what an herb is," said Diane Miske, BS '81, MPS '85, who manages the garden. "Besides including plants with specific uses to humans we also include a lot of plants that might have had some historical or literary significance to people."

One example of a historically significant herb is the Scotch thistle. Scottish folktales tell about a surprise attack by Vikings around 950 A.D. When the invaders ran into the thistles they screamed in pain, alerting the Scottish army of the attack, allowing them to be victorious.

"There were a lot of interesting herbs in literature. The globe amaranth, which keeps its color even after it is dried, became a symbol of immortality or undying love in Victorian England," she said.

Miske said her work at the garden is a way of combining her interests in photography, plant crafts, history and folklore. In 1979 she received an Associate's Degree from Rochester Institute of Technology for photography and decided horticulture would be an excellent complement to her interest in nature.

"I didn't know a lot about herbs, other than the common culinary ones, until I got the job managing the herb garden," said Miske. "I had more of a general horticultural background with my master's degree work emphasizing woody plants, particularly propagating lilacs."

"A lot of old herb gardens were arranged by plant families, so you never really got a sense of what the significance of the plants was," she said. "With the theme beds, you can go to a section and see how different plants were used for certain things."

Among the other herb garden themes are: Herbs of the Ancients, Bee Herbs, Native American Herbs, Medicinal Herbs, Dye Herbs, Sacred Herbs, Tussie-Mussies and Nosegays, Savory Seed Herbs, Fragrant Herbs, Tea Herbs, Economic Herbs, Culinary Herbs, Herbs of the Settlers and Scented Geraniums.

The herb garden might be a sign of a regrowth or renewal of an interest in using herbs as natural dyes, food flavorings or medicines. America has witnessed a "back to nature" movement that strives to create works of art of culinary delight using natural materials. As the interest in herbs and plants grows, so will the Plantations and their new projects.

"The Plantations are growing more and more each year," said Miske. "They have obtained grants for education, they are expanding the garden areas, bringing in more people and advertising more to the public."

"One of the sayings around here is that the Plantations is one of the best kept secrets in Ithaca. We hope to change that. We want to make all of the gardens more visible and accessible to the public."

The Robison York State Herb Garden (below) has its herb beds arranged by themes and allows visitors to see how the herbs were used.

by Stephen C. Fadden '88
Plane Takes Over as Director of Experimental Station at Geneva

Robert A. Plane, former president of Clarkson University and former provost of Cornell University, became the director of the New York State Agricultural Experiment Station at Geneva in November.

As part of the College of Agriculture and Life Sciences, the station conducts research on the production, protection, and processing of fruits and vegetables. It is also the site of the United States Department of Agriculture's National Clonal Germplasm Repository, a living library of apple and grape genes for plant breeders and biotechnologists.

"We are particularly pleased to have someone of Bob Plane's caliber as a scientist and administrator in this important leadership position at the Geneva station," said Dean David L. Call BS '54, MS '58, PhD '60 of the agriculture college.

During his 22-year career at Cornell, Plane has served as a researcher, chemistry professor, department chairman, faculty trustee and provost.

Hardy Appointed President of Boyce Thompson Institute

Ralph W.F. Hardy, one of the nation's leading scientists in the field of life sciences and an authority on biotechnology, is the new president and chief executive officer of the Boyce Thompson Institute for Plant Research at Cornell.

Hardy is the fifth chief executive officer of the research institute. Established in 1924 in Yonkers, N.Y., the institute moved to the Cornell campus in 1978. Recognized worldwide as a leading research organization of its kind, BTI concentrates its research efforts entirely on plants, focusing on four primary areas—biological control, environmental biology, nitrogen and crop yields and plant stress.

During the past two years, Hardy has served as a visiting professor in the New York State College of Agriculture and Life Sciences.

A leading authority on nitrogen fixation and plant microbiology, Hardy has published more than 100 scholarly articles in leading scientific journals.

Hardy is also past president of Biotechnica International, a Massachusetts-based biotechnology firm. Prior to his employment at Biotechnica, Hardy was a member of the research and development staff at E.I. du Pont de Nemours & Co. for 21 years.

The National Agricultural Alumni and Development Association has presented the Distinguished Service Award to Glenn O. MacMillen '54 in recognition of his professional achievements and his service to the organization.

Director of development and assistant to the dean of the College of Agriculture and Life Sciences, MacMillen was instrumental in increasing private support to the College from $1 million to $9 million during the past eight years. He has increased the membership of the College's Alumni Association from 3,000 to 3,600 and has established an annual alumni reunion program called "Roundup." In addition, he has played a major role in establishing more than 50 of the 100 scholarship funds for students in the College.

Charles J. Sniffen has received the 1986 American Feed Industry Award in Nutrition Research from the American Dairy Science Association.

Sniffen, who joined the faculty of the Department of Animal Science in 1978, was recognized for his research accomplishments, especially the development of a method to evaluate protein degradability and the application of this methodology in dairy cattle feeding and nutrition.

An authority on ruminant nutrition, Sniffen has been recognized as the scientist most responsible for the widespread adoption of protein solubility as a key factor in formulating dairy cattle rations. In addition to his research responsibilities, he works closely with Cornell Cooperative Extension agricultural agents, feed manufacturers and farmers on all aspects of dairy cattle nutrition.

Four Food Science Students Gain National Championship for Cornell

Four food science students in the College of Agriculture and Life Sciences captured the national championship at the "National Food Technology College Bowl" in Dallas this past summer.

The Cornell team of graduate students Raymond J. Lundy and Todd Gusek and seniors Joe Klemaszewski '86 and Andrea Malmendier '86 was the Northeast entrant in the quiz show sponsored by the Institute of Food Technologists.

Cornell crushed Kansas State University 70 to 5 and defeated the University of Wisconsin 70 to 55 to take the national crown.

Cornell defeated the Pennsylvania State University team last fall to become the Northeast entrant in the national competition.
The handsome plaque in the lobby of Mann Library symbolizes the recognition of excellence in one of mankind's oldest professions: teaching. For the College of Agriculture and Life Sciences faculty members whose names are engraved upon this plaque, the Edgerton Career Teaching Award is an immensely satisfying culmination to the years they have given to helping students learn.

Established in 1980, the award was conceived after undergraduates honored Professor Louis J. Edgerton PhD '41 at the announcement of his retirement with a small celebration and a plaque.

Friends and members of Dr. Edgerton's family decided to create an award in his name to recognize those who, like Dr. Edgerton, had given so many years and so much of themselves to serving students. An endowment was set up to provide funds, which as part of the award were given to recipients' departments for use in improving teaching facilities.

Glenn O. MacMillen '54, Assistant to the Dean and Director of Development in the College who set up the award and who helped prepare the wording on the plaque, said Dr. Edgerton emphasized that it should be meaningful and defined very carefully its purpose: "to recognize those instructors who have taught and counseled students faithfully and diligently throughout most of their professional careers."

What distinguishes this award from other teaching merit awards? Firstly, candidates are judged not only by their classroom performance, but also by the roles they have played as student advisors. Secondly, the award is for career teaching: only instructors who have at least 25 years of classroom service are considered.

The award winners interviewed all revealed that they felt their relationships with students was one of the most important aspects of their teaching as a whole. Professor Emeritus William C. Kelly PhD '45, vegetable crops, said, "The students are more important than the awards." The real reward in teaching, he said, came from the satisfaction of being able to help students. "It was very gratifying to have somebody who was struggling and didn't know what they wanted to do, to get them into courses, talk to them and finally to get them matched up with either a course or a professor that really turned them on, and then to see them 'take off.'"

"I've always had an interest in students, not only in class but outside of class too," said Professor Emeritus John G. Seeley PhD '48, floriculture, who still keeps in touch with many of his students, and who carries a little book of former students' addresses with him when he travels. "I felt I'd like to have a student feel that I'm a friend rather than just a professor, and I think that came through.

"It gives you a thrill," he continued, "when you meet former students and they say, 'When are you going to come and see my greenhouse? It's not big, but I'm proud of it.'"

Pride and satisfaction in their students' achievements shows up in the award recipients' comments again and again. Professor Dana C. Goodrich Jr. MS '56, PhD '58, agricultural economics, expressed much the same sentiments as Drs. Kelly and Seeley. Previously chairman of the undergraduate program in the Department of Agricultural Economics, Dr. Goodrich said that his responsibilities in that position gave him the opportunity to talk to students in small groups or individually, which he did not have in a class situation, and to help students look at possible areas of study in the department—"a very satisfying experience."

The most rewarding times in his teaching, he said, are "when students come back to the campus and in a rather surprised tone say, 'Wow—I have actually seen some of the things I was taught,' or 'I have learned to apply some of the skills I learned in class!'"

How do the recipients feel about receiving the award? Their comments reflect similar emotions: "'I'm grateful and pleased.' "I felt great." "What a thrill it is to be recognized for career teaching."

The recognition, they agreed, is wonderful but, as Dr. Seeley said, "The award is like the icing on the cake. The real reward is in hearing comments from students and seeing what students have done."

Dr. Kelly commented, "I knew the people who had gotten it before me as well as the ones after, and I was very pleased to be associated with that group. They're all people with reputations for being good teachers. That's what I wanted to be—a good teacher."

The tangible rewards of being a good teacher and advisor to students are not the only ones. Others, such as lasting friendships with former students and the personal satisfaction of having helped a student to succeed, are perhaps the most valuable. Dr. Seeley agreed: "If I were starting over, I'd do it all again."

Time-honored Teaching

by Carol A. Tong '87

New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.
Helping Hands
January/February 1987 Volume LXXXIV Number 4

ABOUT THE ISSUE
Student support and university outreach services are sometimes overlooked, but essential, ingredients to university life. In this issue we will become acquainted with several of the kinds of support and outreach organizations that are available on the Cornell campus. More importantly, we will be introduced to the people who are willing to lend the helping hands, ears, advice, information and encouragement to Cornell community members.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy '53, Linda Myers '64.

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PHOTO EDITOR:
Carla R. Sunshine Koppell '88
CIVITAS and Cornell's Volunteers
PARTNERS IN ACTION

Four years ago, a 13-year-old girl from a single-parent family needed a mentor and a friend. Jessica Irschick '89 became her Big Sister. Since then, the two have met nearly every week to go out, do crafts, cook, or just talk. When they can't get together, they exchange letters. They've developed such a close relationship that Irschick said, "Now we really are like sisters!"

Last year, a group of children living in nearby Etna needed leaders for their 4-H club. Beth Adler '89 decided to help out. Every Friday afternoon, when she and the two other Cornell students she works with arrive at the meeting, they are greeted by the chorus of several very excited kids who just can't wait to get started. "It's neat," said Adler. "They really look forward to it."

Last semester, a 15-year-old Ithaca High School student needed help getting through her math course. Maria Sileno '87 offered to be her tutor. This became Sileno's second tutoring position. Not only did her pupils earn better grades, but as she said, "Because I point out what's right, not just what's wrong, they gain a sense of self-worth. They see that they can do the work. That attention just isn't present in a classroom situation."

All of these Cornell students are volunteers. For a few hours each week, they break away from their studies to be with the young people who need their attention, their initiative and their skills.

Volunteerism is alive and well at Cornell thanks to a dynamic collaboration between CIVITAS (Cornell-Ithaca Volunteers in Training and Service) and some 300 students who, like Irschick, Adler and Sileno, want to lend a hand.

CIVITAS, a program of Cornell United Religious Work, works "like an employment agency" to link students who want to be of service with the local service groups that need their help.

Now entering its twenty-first year in operation, CIVITAS has cultivated close ties with Ithaca's wide-ranging network of community service agencies. In 1985-86 alone, the program dealt with about 180 different groups. "Ithaca is a very supportive community," said Volunteer Coordinator Mary McGinnis. "If someone dreams up a need, someone else will dream up a program." In this teeming environment, there is little chance that people who want to volunteer won't find something to interest them.

"The most popular volunteer jobs," said McGinnis, "are with young people." Many of the students are placed as high school tutors. Others go to organizations like the Ithaca Youth Bureau or the Greater Ithaca Activities Center, to work in programs they sponsor for youth in the area.

The field of health care also attracts a good number of students. Most volunteer in the emergency room at Tompkins Community Hospital. Still others care for the elderly or the disabled. CIVITAS volunteers assist battered women, county jail inmates, refugees, pregnant teenagers . . . the list goes on and on.

The alliance between CIVITAS and the student volunteers has definitely enhanced community service in Ithaca. "There's no doubt in my mind," said McGinnis, "that the agencies downtown are extremely grateful for the help of the students. Many of the groups simply wouldn't operate without them." Children, she feels, have been especially fortunate. "A lot of children wouldn't be getting help if volunteers weren't working with them."

"From the point of view of the students," she continued, "I think it makes everybody feel good when they're doing something for someone else. With volunteering, that reward is there. Plus the students have a chance to get career experience and to break out of the 18- to 22-year age group—to feel part of the larger world."

If anything attests to the success of the CIVITAS-volunteer partnership, it is the unqualified praise that comes from all levels of the network. "I don't know what we'd do without them," said Mary Rogers, a teacher at Ithaca Housing Authority's Northside Community Center. As facilitator of its Big Brother/Big Sister program she sees volunteers foster enriching relationships with the children they work with, "help take pressure off the family, and show the kids there's one more person who loves them and cares for them." Furthermore, the volunteers involve the children in activities that are just plain fun. "The kids always come to me and tell me what they've done with the Big Brothers and Sisters," she said.

Volunteer Irschick, who has participated in CIVITAS since her first semester at Cornell, called it "an amazing resource for the University." She said, "I've been here for four years and gotten a lot out of the Cornell community. CIVITAS has helped me give back some of what I've received."

Social commentators have heralded the 80s as the "Me Decade." But the spirit of generosity that prevails at CIVITAS belies this characterization. "We hear about how selfish and inward looking people are these days," said McGinnis. "We don't see that here. We're fortunate. The people who come to us have a real sense of social and civic responsibility." From these people—people like Cornell volunteers Irschick, Adler and Sileno—comes a legacy of service and good will.

by Carolyn Shea '87
Dear Uncle EZRA—
Are you an uncle or an aunt? We assume you are male but is that assumption correct?

Signed, Just Curious

Dear Curious,
As I’ve said before . . . “Uncle Ezra” represents not one individual, but the spirit and efforts of lots of Cornellians who are trying to provide help, guidance, counseling and plain old good advice.

That being said, however . . . it is true that a single person reads all of your mail and takes responsibility for all of the answers. And that person, while anonymous, is . . . let me check . . . yes, an Uncle.

That, in a nutshell, is why Uncle Ezra logged-in on September 26, 1986. Since then he has become, as he calls it, the “computer-age ‘Dear Abby’ of Cornell.” And he has taken Cornell by storm.

EZRA is a new addition to the CUINFO public computer listings which began three years ago. It is a service offered by the Dean of Students Office through CUINFO, and is one of more than 50 resource listings under the code SOS. Access terminals are located throughout campus in such public locations as Uris, Olin, Mann, and the Law libraries as well as Gannett Clinic and Day Hall.

Users may hook into SOS EZRA and either write to Uncle Ezra concerning issues of personal importance, or may read the entries of others. “I started advising by computer for a couple of reasons. First of all, for a number of years Cornell had listed counseling and advising services. But, use of those listings had recently decreased to about 30 or 40 people a month. What this suggested was that these listings weren’t the best way to let people know help was available. We wanted a way to let students ask whatever questions they wanted and then try to give them an answer and let them know of Cornell’s services,” Uncle Ezra explained.

Evidently, the formula has worked. “In the first three weeks instead of the average 30 people per month we had about 300 users: 100 questions and 200 readers. In the first full month of operation we had 250 questions and approximately 1200 readers,” Ezra estimated.

EZRA deals with a wide range of issues. Questions include, “Why is the ag quad so ugly?” “When will the construction end?” “Why isn’t there a place to eat on the ag quad?” “As a sophomore in the ag school, how can I overcome my shyness?” “How can I nurture my relationship with my girlfriend?” and “Are there any libraries open 24 hours a day?” The abundance and variety of questions has been tremendous.

And the results of this influx have been both good and bad. Because of
the high level of usage some unanticipated effects have become apparent. "The original goal was just to be able to answer questions for people. What we are seeing is a secondary effect in which people have been reading and finding out what other students think. My guess is that people just like hearing what other people say and what advice is being given." And Ezra adds, "Another thing which we are experiencing is that this is bringing in a lot of people who are using computers for the very first time. We are giving people the motivation to learn about the mainframe. That was totally unforeseen." EZRA has also been seen as a tool to introduce computer technology to those who are unacquainted. Dean of Students David Drinkwater termed it "An attempt to use hi-tech in a humane and constructive way." Ezra believes that this approach to counseling is "both more personal and more anonymous," tailoring questions and their responses to meet the needs of the individual students.

While there have been unexpected benefits there have also been unforeseen problems, some minor, others major. "Because we are bringing in a lot of people to use the computer for the first time we found that the instructions governing computer use had to be supplemented. We needed to cut down the number of computer-use related typographical errors that were appearing. Another problem which we observed related to the fact that Cornell has three different computer systems. What was happening that we did not realize was that in some cases people never received their responses because letters would enter the wrong computer system never to be received by the question's author. We corrected that problem too," Ezra said.

More importantly, "I have been inundated," Ezra noted. "This was an experiment. I was expecting maybe two or three questions a day and instead I get ten. The biggest problem has been my inability to answer all of the questions." Because Uncle Ezra already has a full-time job, this has overwhelmed him and jeopardized the future of Dear Uncle Ezra. While there are plans to expand EZRA and establish a support staff, nothing concrete has been done. Ezra conceded, "The reality is that while a need is being fulfilled, people would survive without EZRA. It's not like there would be a hole if the service stopped. EZRA may go away because it is such a large time commitment."

This would be especially unfortunate because Dear Uncle Ezra is highly regarded:

Dear Uncle Ezra,

No question here. I just wanted to say that I think this experimental service is pretty good and a fine idea. Keep it up!

Happy and impressed

Dear Uncle Ezra,

This is a great idea. People need a place to ask those unanswered questions and it is fun just to see an exchange of ideas on such a large basis. I just found out this thing is here. Neat! This is a good idea.

VPT and CR

And this is the general consensus. "So far there has been only one person who criticized some spelling and a few people have said "How come you haven't answered me yet?" Ezra notes with some pride that no one has criticized the concept and it seems as though Cornell appreciates its new relative. Everyone needs someone to talk to some time. Uncle Ezra, it seems your time has come. □

The CUINFO terminal in Mann Library provides access to Uncle Ezra. Here, Christine Collins '88, a genetics major, makes use of it.
The incidence of cyberphobia seems to be on the decline on college campuses. Cyberphobia is a "terminal" disease that appeared as a result of the recent explosion of computer technology. The symptoms are similar to those of a blind date and often cause people to break into a cold sweat and suffer extreme mental distress at the thought of having to use a computer. Cyberphobia seems to be more prevalent among middle-aged adults but has been known to afflict teenagers, adolescents, and college students, causing them to attack computer terminals with foam rubber "nerf" hammers. Even an Ivy League institution such as Cornell has not been without casualty.

"I used to suffer from cyberphobia," admitted Cate Thompson, '82. Thompson is the Assistant Coordinator for Student Services in the College of Agriculture and Life Sciences.

"I didn't want to take any courses on them or even deal with them," she said.

"I hated computers because I thought they would make life more complicated. Besides, machines and I don't get along," she said pointing to the IBM PC sitting on her desk top. She referred to the computer as "Oliver." Nested on the desk next to Oliver is a completely functional manual-operation Royal typewriter, circa 1935.

"These are more friendly to me," she said pointing to the antique. "I feel I am more in control.

"I have to admit though, I get along fairly well with Oliver now. The systems I work with are designed for people who don't know what they are doing," she said with an air of confidence. "Besides, there are enough people I can call if I have any problems."

Thompson said she no longer views computers as things that represent the unknown and that Oliver helped her to overcome that fear.

"Now I am looking forward to getting a Macintosh to do student records and innovative new programs of my own specifications. I'll need help getting them onto the machine, but I know they can be done on the Mac," she said.

"Until now I always felt that somehow the machine knew how to work itself and I didn't," said Thompson. "I was at the mercy of the machine telling me what to do in order to make it work. I wasn't working the computer, it was working me."

The incidence of cyberphobia can almost be correlated with age. The longer a person is without computer exposure, the harder it is to overcome uncertain feelings about them.

One computer salesman said he could identify people who are new to computers because they wander nervously and aimlessly around the displays before asking for help.

"We get a lot of young kids who come in and play with the computers, but the older people tend to say, 'Oh, I don't want to know about it; it is too compli-
icated.' Sometimes they don't want to embarrass themselves by trying one out and doing something wrong. Many of these people are just getting the hang of using calculators to do addition,' he said.

The Mann Library and Warren Hall computer centers at the agriculture college are havens for people who want to learn about computers or are already familiar with them. The Mann facility houses 35 computers, most of them IBM PCs. The Warren center has 26 IBM PCs. During October 1986, the machines were used 4,306 times for a total of 5,014 hours. The most used program was Word Perfect 4.1, a word processing program published by IBM. Another popular program is Lotus 123, a spreadsheet generating program.

The staff of Mann Library conducts several "introduction to computer" workshops every semester. Fourteen sessions were held in October, with 243 people attending.

"A lot of people who come to the workshops have never turned a computer on," said Gwen Urey, who works at the Mann facility.

The type of people who attend the workshops range from groups of freshmen to groups of first year graduate students, she said.

"I really wouldn't say the people have a fear of computers, they just aren't acquainted with them," said Urey. "I think among novices there tends to be confusion about computers because the way a person learns to use one is very specific," she said. "For instance, a person might have to use the reserve rural sociology software. All they have to do is stick the disk in the machine and the program runs itself.

"At some point people realize there are other applications for computers such as word processing or spreadsheets and they want to try to learn more," Urey said.

The transition from using programs that are self-operating and specialized to using programs that require some computer skills, can be hard to make, said Urey.

The worst case of frustration Urey observed was when a whole class from the same course came during a period of two weeks and used a reserve program. They entered all their data and sent it to print without first saving it.

"They found out too late that the program hadn't been set up for our system. The only way to get back into the printer was to rerun the program and they lost all the data," she said.

One enterprising company advertised a couple of tools in a popular computer magazine to combat this kind of frustration and another kind of frustration that occurs as a result of the total loss of information called "crashing a disk." Their products were hammers and baseball bats made from foam rubber.

"As far as I'm concerned, the computer is just a tool, like the hammer and nail," said Bob Roe, BS '68, MS '80, a lecturer for the communication department at the agriculture college.

"Computers don't scare me, but sometimes they infuriate me when they don't do what I want them to," said Roe. "But I realize the fault is mine and not the computer's."

Roe said people should not worry about trying to figure out how to "program the beast" but instead should worry about finding software that meets the needs of the user.

"I've heard some computer nuts that go around telling people that everybody should know how to program a computer," said Roe. "That is just not necessary."

“Another thing that intimidates people is that many companies don't know how to write good computer instruction manuals," he said. "A computer will not think for you and that can create problems for people because they think the machine will solve errors in logic for them."

Roe said that good manuals with clear instructions and good explanations of computer terminology, coupled with good user planning would probably help more people to overcome their fear of using computers.

Cate Thompson said she has noticed that more and more young people are receiving computer instruction in high school. Even elementary schools are beginning to purchase computers, said Thompson.

"When I visit high schools I am amazed at how many of them have computers and are offering courses to their students," said Thompson. "And I would say easily over 50 percent of the new students who came to Cornell in the fall of 1986 had some facility with a computer, from using a word processor to knowing how to program in several different computer languages."

Thompson said this is a drastic increase from even two years ago when no more than 20 percent of incoming Cornell students had computer experience.

The computer revolution, whether it means using the computer as a high powered typewriter or as an information storage and retrieval base, with all of the new jargon attached to it, is upon us. Cyberphobia is one of the roadblocks to the success of the revolution. Pass the ammunition.
"If I leave during the day, there's never a space when I come back."
"You can never find a place to park to go to the library at night."
"It's a constant fight to get a parking place."

These are some of the comments that can be overheard whenever people are asked what they think of the parking situation on campus. And anyone who drives to class or the office, or who has experienced the chaos on visitors' weekends, can sympathize. What we need, undoubtedly, is to do something about parking on campus. But the solution is hardly as simple as increasing the number of spaces and building more parking lots. One of the main obstacles to this approach is the concern that the green space on campus, the decades-old trees that line many of our roads, will gradually disappear, to be replaced by asphalt and steel lamp posts.

Peter J. Trowbridge, associate professor and program coordinator in landscape architecture, said, "The Transportation Services and Campus Planning offices are facing a dilemma: faculty want to park within seconds of their office doors, and say there's inadequate parking; at the same time there's a struggle with keeping parking areas, which are not naturally attractive, away from immediate building environments and keeping green space near academic buildings. In essence, people are demanding, 'Give me close parking but don't make it apparent.'"

"There's a built-in conflict between parking lots and natural landscape," said Lewis S. Roscoe, director of the Campus Planning office. "The trade-off is between convenience and green space."

How are planners balancing these considerations? William E. Wendt, director of the Office of Transportation Services, said that the direction planners are taking is in favor of more parking. "The increased capacity provided by the garages, surface parking on campus could be removed to make way for new buildings or pedestrian walkways. We are also trying to cut down the traffic on campus. One of our major goals, besides maintaining the appearance of the campus, is safety. Keeping parking on the periphery as much as is possible will lessen the effects of vehicular traffic on pedestrians."

"We are sensitive to community needs," said Wendt, "though sometimes the timing of some projects leads people to wonder. If you look at some of our recent projects, you'll find that we've made improvements in the area's appearance."

"Behind the Humphreys Service Building, for example, where there used to be cinderblock buildings, we've buried utility lines, dealt with drainage problems, and put in new plants and good lighting. And on the Tower Road project, we worked with faculty in the Departments of Floriculture and Ornamental Horticulture, Entomology and Plant Pathology to find ways of doing the construction while preserving the plants in the area. Saving the red oaks there, for instance, will retain the boulevard look of the road."

Often the issue isn't as simple as saying that keeping a piece of open land as it is, is better than building on it. Open space, or even a place that is already used for something, isn't always used to its best advantage, said Roscoe.

"It always boils down to a land use decision, to looking at costs and convenience, and to comparing present with planned use. Our main considerations in campus planning are land use, vehicular and pedestrian circulation and landscape design issues."

"For instance, with parking, one alternative which would preserve green space is to build underground garages. But it would cost $15,000 per car to build, as compared to $7,000 per car for an above-ground garage and $1,800 per car for surface parking."

"As the campus expands, the amount of open space will actually remain the same. But more of it will be cultured, and less of it will be wild. The emphasis is on better use of the space."

"It's okay to use land that isn't going to be missed as green space," said Carl F. Gortzig '52, chairman of the Departement of Floriculture and Ornamental Horticulture. "Some areas have unimportant vegetation that just isn't worth protecting and new landscaping may be very appropriate." But in some cases in the past, he said, natural areas have been violated, and very old trees and other plants damaged or sacrificed to construction, such as at the Chilled Water Plant behind Van Rensselaer Hall.

"The planners were cooperative on the Tower Road project," said Gortzig. "They have been very considerate once we have identified the problem. They left wide margins around tree roots when bulldozing."

"Growth on campus is inevitable and necessary, but there are ways of construction that minimize damage to trees and plants. At this point, we must give far more than the usual amount of attention to protecting and enhancing the environment, given the tremendous amount of construction underway and planned for the future."

Trowbridge feels this is happening. "Particularly in the last couple or years, I've noticed a very concerted effort to do a better job with on-campus circulation and parking, and to attempt to be more cognizant of how parking fits into the landscape."

"We spend a lot of effort discussing projects with landscape architects and other professionals," confirmed Wendt.
“Parking and roadways are things we need as much as green space, and they must be worked into the environment. We don’t put plants in parking lots just to appease people initially. We make sure that the plant materials we use can be maintained, and we also deal with problems like drainage and curbing. We make sure the project doesn’t fall apart in a few years’ time.”

Are the campus planning and transportation offices doing a good job? Judging by their record so far of keeping the massive amounts of traffic on campus under control, the answer is “Yes.”

The large parking lots on the edge of campus such as the A and B lots were built in the late 1960s, and since then the bus services have been improved to facilitate access between these lots and central campus. “If we didn’t have the remote lots,” according to Roscoe, “we would have about two thousand more cars in the center of campus.”

“More people are bringing their cars onto campus this year, because the price of gas has been low. In September 1986 we got 400 more staff and 300 more students registering their cars and buying parking permits,” said Wendt, “But with the opening of the new garage behind Schoellkopf Field, the parking situation has in fact been the best ever.”

In general, reactions to the new garage have been very positive, although there have been some complaints about pedestrian access and security at night.

“The new garage has succeeded in being both convenient and unobtrusive,” said Trowbridge. “I’m happy that the university is finally going to a structured garage system versus a lot system: it will keep a lot of the land open and green.”

“The parking garage and the Tower Road spaces have definitely helped,” said Gortzig. “There hasn’t been one day this fall that I couldn’t find a space.”

Despite the encouraging comments, however, the parking planners cannot yet afford to sit back and smile euphorically at their parking maps.

“Keeping up with parking needs on campus is like shooting at a moving target,” said Wendt. “There won’t be a time that Cornell isn’t growing, that we won’t need to reassess the parking situation.”

But perhaps just this once the planners should indulge in a quiet smile in the privacy of their offices, or give themselves small pats on the back, at the position they have achieved in the constant race between parking needs and parking capacity.

by Carol A. Tong ’87
A Call for Action

"I was working in Nicaragua in 1978 when a Latin friend of mine was killed by Somoza's general guard. Since then, I have felt we should actively study and participate in our own political system. It is important to be well-informed on the United States role in international politics. Through education, the Committee on United States/Latin American Relations (CUSLAR), gives people the background information needed to take action," said Mary Jo Dudley, the committee's director.

CUSLAR is a Cornell University-based group which works in Ithaca and the surrounding areas to promote a greater understanding of Latin America and the Caribbean. The committee is particularly concerned with the role of the U.S. in influencing the social, political, and economic conditions.

The members of CUSLAR are a diverse group of people: undergraduate and graduate students, faculty members and people in the local community. Dr. Stephen Emerman, a post-doctoral candidate in Mechanical and Aero-space Engineering, has been involved with CUSLAR's activities since he came to Cornell in 1981. "One of the purposes of the committee is to show solidarity through helping people in Nicaragua who are in need. One project I worked on was the Harvest Brigade, where volunteers went to Nicaragua to help bring in the coffee and cotton crops." This project was organized nationally by the Nicaraguan Exchange and locally by CUSLAR.

"Through our activities and written materials, we try to promote an understanding of the situation in Latin America—not as an expression of east-west conflict or as a political distraction, but as the living reality for millions of people," said Dudley. The committee hopes that from an increased awareness of why the expressions of struggle and resistance in Latin America are growing, active support for the efforts to construct a new life will also develop.

Since CUSLAR was organized in 1965, it has done a lot of educational work regarding human rights. The committee is now raising funds through cultural activities for a national ad campaign to support human rights in Guatemala, and press for information regarding the whereabouts of those who have "disappeared" as a result of the government's program of political repression over the past years. It is also aimed at giving support to Guatemalans who have family members missing. CUSLAR has joined a major national letter writing campaign with the objective of generating 10,000 letters to President Cerezo of Guatemala. "I, along with others involved in this project, will be going to Guatemala in January 1987 to deliver these letters. We are asking President Cerezo to prevent further violations of human rights, to investigate past disappearances, and to prosecute those responsible," said Dudley.

The committee is also involved in giving direct aid to projects in Latin America. It is raising funds for a health clinic in a war-torn area of Nicaragua, and sent aid to the victims of the 1985 earthquake that hit San Salvador, leaving at
least 600 people dead, 10,000 injured, and 50,000 homeless. CUSLAR has also sent volunteers to Latin America to participate in harvesting cotton and coffee.

Dudley said that it is important to organize groups of Americans to go to Nicaragua so that people can see for themselves the effect of U.S. military and economic intervention in Latin America. "If our belief in democracy is to be more than an interest in formalities, we must become actively involved in working for democracy here and abroad," Dudley said.

CUSLAR has information on a broad range of Latin American topics including: the role of the church in different countries, health care, education, the use of herbs as medicine, and the situation of women in Latin America. There is also an ongoing study group looking at the changing political scene. Students from the College of Agriculture and Life Sciences and CUSLAR organized a slide show comparing agricultural productivity in Nicaragua and in New York state. They also organized a project for raising funds to buy tools for Latin American farmers.

CUSLAR also serves as a resource center, with a large variety of up-to-date publications including periodicals, pamphlets, books, slide shows, and materials from various national and international sources. The committee receives information regularly from various national solidarity organizations as well as other upstate New York groups. "All these resources are used not only to promote understanding among the community, but also for our own education. We feel that ongoing internal education is crucial if those engaged in this work are to speak out effectively and with authority," said Dudley.

Along with CUSLAR's strong political orientation, the committee has regularly scheduled cultural events and activities. The activities include: a film series each semester, guest speakers, panel discussions on current issues, and outreach activities in the Ithaca community, and theater and music groups. "The objective of these cultural events is education above entertainment," said Emerman.

CUSLAR invites speakers to Cornell who have valuable knowledge and experience to share. Dudley said the committee tries to get speakers who have recently been in Latin America or have some specific expertise about a topic which hasn't been well covered in the U.S. In the past, CUSLAR has sponsored concerts of Guatemalan and Peruvian music, videos on a sanctuary movement, a Chilean theater group and speakers on U.S. intervention in Latin America.

Cornell University and the Ithaca community have recognized CUSLAR's activities and objectives and regard the committee as a valuable resource on U.S./Latin America policy. Dudley, however, wants CUSLAR's voice to be heard even more. "I would like to present slide shows to small groups of interested students in the dormitories on some of these important topics. I also look toward more people from our community going to visit Latin America and seeing for themselves what is taking place."

Each year, some of CUSLAR's members graduate and/or leave the committee and the structure changes. Its objectives, however, have not changed since the 1960s. "We have been protesting, and probably will be protesting for the next 20 years, the policies of the Latin American government," said Emerman. But today, Dudley argues, the Reagan administration is moving closer to a major confrontation in Central America and the war in Nicaragua has escalated. "The U.S. continues to give military aid to the anti-Sandinista contras, El Salvador military and Honduras, so we must do our work with an increased sense of urgency." Dudley continued, "We should all be aware of these issues and respond with action."
Friendship, leadership, and service are the three ideals behind Alpha Phi Omega, the student service fraternity currently advised by Dean David Drinkwater. Cornell University's Gamma chapter was the third chapter in the nation to be formed. Susan Sheu '87, the pledgemaster of APO, said, "We are considered a radical chapter because we were one of the first chapters to accept women." In 1976, the National Fraternity overwhelmingly voted to include women among its brothers as full members although there are still some chapters today that will still only allow men to join.

Not only was the Gamma chapter of APO different from others by accepting women, but also by becoming a monopoly a few years ago. "APO used to own Cornell Copy and do the lighting for concerts, but we got to be too big and were forced to turn Cornell Copy over to the University and give up doing the lighting for concerts," Sheu said. "We are still expanding as a chapter and lately have received a lot more recognition."

The service fraternity was founded in 1925 on the principles of scouting. Past members of APO were required to be registered in one of the scouting programs. While this is no longer required, APO chapters still maintain a close relationship with the scouts. Amy Howansky '89, Rush Chairman of APO, said that men could not participate in scouting after age 20 so in order to continue the ideas of scouting they formed APO. "We still help the scouts. One of our most recent projects was to help the Girl Scouts sell cookies to fraternities and sororities at Cornell," she said.

The service we render to others is really the rent we pay for our room on this earth.

W. Grenfell

Because Alpha Phi Omega was founded on the principles of service, four fields of service evolved and each area is covered with different projects relating to the particular areas. Service to the brotherhood, campus, community, and nation are all important to APO.

The brothers and sisters encourage service to the chapter by organizing spontaneous social and service events. "A lot of people think that we don't have any fun, which is not true," Howansky said. Parties, canoe and skiing trips, and ice times for skating have been scheduled so that members can get together and meet one another. They also have a big-little sibling program so members will have someone to talk to and pledges will have someone to ask questions. "The big-little sibling program is a good way to make friends," Howansky said. "We don't have a house because we are a service fraternity not a social fraternity, but many people end up living together."

One of APO's major projects each year is selling the freshman register, better known as the "Pigbook," for chapter fundraising. Brothers also sell concessions at concerts like the Suzanne Vega concert that took place in October 1986. At Fun-in-the-Sun, Alpha Phi Omega was right there with their booth along with the rest of the fraternities and sororities.

APO's involvement does not stop with activity within its chapter. Each year, several service projects are conducted specifically for the benefit of the campus. Campus Chest is one of the many charities under the wing of APO. In the fall, APO conducts the unique mile-of-pennies fund raiser and in the spring, on Dragon Day, APO members sell "Greenies," green carnations, to students and faculty. All the money raised from the two functions goes directly to the Campus Chest, a fund that gives money to campus groups such as EARS, CIVITAS, and the students' emergency relief fund.
The fraternity also provides service to the Ithaca community in several different ways. Some members participate in singalongs with residents of Ithacare. "The elderly enjoy interacting with young people," Howansky said. Others choose to work with children through the Greater Ithaca Activities Center, GIAC. Also, a Collegetown clean-up day is arranged each year where APO brothers and sisters rake leaves and help straighten up the area. Twice a semester, APO helps out with the Bloodmobile. In November 1986, APO helped the Bloodmobile surpass their goal of 200 units, getting a total of 238.

During each rush period, the pledges are responsible for a major service project. For the fall of 1986, APO pledges held a canned food drive and all donations were given to the soup kitchen in Ithaca. Other pledge projects include a clothing and food drive for the Salvation Army.

"Our goal is to help people with any kind of service, big or small," Howansky said. "We get a warm feeling inside knowing that we are helping someone else." Every year APO brothers participate in a National Service Day, based on a theme for the year like the Red Cross Organization. Some members joined the Hands Across America chain, to support a national cause.

In November 1986, APO also helped United Way raise money by selling pins to students so they would be eligible to become part of a chorus line that would attempt to break a record in the Guinness Book of World Records. The results were good, coming only 50 short of the record.

It is clear that APO provides many benefits for the chapter, campus community, and the nation. But what about the students who decide to become members? Deborah Smith '88 decided to pledge APO because members were "responsible people that did some good for the community." She found out about APO through a student on a committee she was on. "He seemed to enjoy it. Since I didn't want to go into the regular greek system, I decided that APO would be a good way to expand my social group.

"The Cornell chapter of APO has a good balance between social and service," Smith said. "You wouldn't do it if you weren't interested in helping people." □

by Diane M. Pytcher '88

Cornell students from Alpha Phi Omega service fraternity joined local children from the 4-H club for "blob racing," "knot" (above) and "lean-to" at the 4-H Acres as part of a pledge project.
REACHING OUT TO AFRICA

by Elizabeth C. Parker '88

The famine and starvation in Ethiopia are only the most visible of more serious, long range problems in the African continent. "Forests are being destroyed, cattle are overgrazing, and food production per capita is declining," said Milton Esman, professor of government and former director of Cornell's Center for International Studies. Today Africa is home to 530 million people, more than double the continent's population two decades ago. If the current trends continue, the population of Africa will grow to one billion people within 20 years. At the same time, grain production per capita for the continent as a whole has decreased every year since 1967. In 1986, more than 25 percent of the population depends entirely on foreign grain.

"Many African governments are not able to deal with these problems because of political divisions, limited technical and management skills and inadequate resources," Esman continued. "If they do not receive help, malnutrition, starvation, disease and despair will become commonplace throughout the continent."

Harvesting the knowledge and interest of African students, Third World specialists and faculty members has given Cornell the opportunity to nourish an Institute for African Development. The Institute will carry out a long-range program to aid African development, including food production and nutrition. The director of the new Institute is Professor David Lewis of city and regional planning.

Last year, bi-weekly colloquia helped to assess the amount of interest and activity among faculty members and graduate students for such a program. These meetings, conducted by outside specialists and Cornell faculty members, addressed such issues as the role of women in agriculture; the pastoral society and livestock; crops, soils, and rainfall; tribalism, population growth and migration and other food, hunger and nutritional concerns critical to Africa's development.

Considerable interest existed within the Cornell community; many were already working on their individual concerns with African development. With a chance for a group effort and possible research fellowship, these individuals began sharing their knowledge with each other.

Launched at the suggestion of President Frank Rhodes, this program, in the long run, aims to help African governments and people increase the available food supply, improve nutritional standards, slow population growth and strengthen institutions. Representatives of Cornell's Center for International Studies, the Africana Studies and Research Center, the International Agriculture Program and the Division of Nutritional Sciences help to guide this effort. Additional support will be provided by the Center for Analysis of World Food Issues at Cornell.

"This is a rather comprehensive program. We recognize that we have a lot to learn."

said Esman, chairman of the Institute's steering program. Within the next five years, the program hopes to see increases in faculty strength, in the number of African graduate students and in the number of experienced African scholars, administrators and scientists "to help educate us on the problems of tropical Africa," said Esman.
Right now many people interested in helping the Institute are very knowledgeable about Third World countries but need to become familiar with the specific problems of Africa. This increase in awareness among knowledgeable Cornell members will lead to research opportunities to aid the country’s development. “There will be ways to be helpful in areas where we have experience and skills which Africa can benefit from,” explained Esman.

Africa is a heterogeneous continent and to be at all effective we must gain a better understanding of the distinctive problems involved. For example, the climate and the customs of the people vary greatly from nation to nation. What works in one situation may not be applicable in another. Understanding these problems and attaining the goals of enhancing cooperation with African institutions and providing help to the nations of the continent through interdisciplinary research, teaching and service will be the work of the new Institute. “Eventually, we want to find one or more foreign aid projects in Africa through which we can make tangible contributions to a particular set of developmental problems, working closely with African scholars, technicians and organizations,” Esman explained.

The College of Agriculture and Life Sciences will be involved in one of the Institute’s first programs. According to Professor Ronnie Coffman, the College has been awarded a planning grant from the Rockefeller Foundation as part of the Africa initiative. There is no doubt that Cornell’s international reputation for conducting research in agriculture, nutrition, population analysis and institutional development will lead to more grants to sustain the Institute’s work.

Funding to support visiting fellowships at the University for leading African experts on developmental problems will be sought. Also needed is the funding to support six new faculty positions in disciplines critical to Africa’s future, fellowships for Cornell’s faculty and graduate students, expanded library acquisitions, and cooperative programs with African universities and research centers.

The program is still very young and in the developmental stages. Proof of Cornell’s well-earned respect for its research efforts to aid other countries lies in a two-decade prospect that began in 1952. The New York State College of Agriculture and Life Sciences worked closely with the University of the Philippines’ College of Agriculture at Los Banos to improve Philippine education and research in a half-dozen areas, including animal and plant sciences. As a result of this work, Cornell has made a significant contribution to improving food production and nutrition in the Philippines.

As a logical extension of Cornell’s land-grant mission, the African development program gives the University an opportunity to gain insight into African culture. At the same time, the people and places from which this knowledge is gained will benefit. Planting the seed of African cultures into the minds of the researchers will help them to better understand how they can help local people to enhance their skills and use their resources more efficiently.

Obviously Cornell itself will not be able to cure all of the problems, but those who participate in the Institute’s work may have something significant to contribute.

With luck, the cooperation of private foundations and a balanced and fair interaction between Cornell, the experts on Africa and the people of Africa, Cornell’s Institute of African Development can make a difference within the next two or three decades. □
Cornell's Stone Hall once again faces demolition. New York's highest court refused to hear historic Ithaca's appeal in their fight to preserve the building as a historic landmark. This decision ends ten years of controversy about the planned structure, to become Academic 1, and a ten-month legal battle over Stone Hall. "I am glad that we are finally moving on. Every other month Stone Hall was being redesigned and partitions were being removed. There were problems with lack of heat in the winter, it was too warm in the summer and water leakages existed from floor to floor," stated Professor Joe P. Bail, Chairman of the Department of Education.

The battle began February 10, 1986, when the city and the Historic Ithaca group obtained a temporary restraining order from the Supreme Court Justices in Ithaca and Albany, prohibiting the State University of New York and the SUNY Construction Fund from continuing demolition that started earlier that morning. Ithaca officials and the historic group claimed that the city's jurisdiction over historic landmarks supersedes SUNY's power to demolish its own buildings, and that structural changes to historic landmarks must be approved by the city. State officials argued that local landmark regulations are not binding in this situation.

Lawyers for the city, Historic Ithaca and the SUCF argued the case in Albany. On March 19, 1986 the state judge upheld their claim that Ithaca has jurisdiction over the 81-year-old landmark. SUCF appealed, and in June '86 the Appellate Division Court unanimously overturned the previous decision, upholding the legal precedent that a city cannot regulate the actions of the State University Construction Fund (SUCF). The ruling stated: "The record firmly establishes that the SUCF fully explored all feasible and prudent plans which would avoid or mitigate adverse impacts... The decision to demolish Stone Hall was based upon a determination that it was not feasible, prudent or practicable to preserve the structure, and our review of the record reveals nothing irrational in such a determination."

Associate Dean Kenneth Wing '58, of the College of Agriculture and Life Sciences, believes that Stone Hall should come down for both safety and program reasons. "Stone Hall is a firetrap and is inefficient for our programs. If Stone Hall were rehabilitated, the entire inside would have to be rebuilt. Renovation of Stone, Roberts and East Roberts halls would cost almost twice as much as building Academic 1."

Dean David Call '54, of the College of Agriculture and Life Sciences asserted, "Stone Hall is not safe. Stone, East Roberts and Roberts are all too expensive to bring up to the building codes established by the Occupational Safety and Health Act. Because Comstock and Caldwell have some historic value and can be useful to the academic pro-

This building, which stood on the agriculture quad for 81 years, was linked by covered walkways to Roberts Hall and East Roberts Hall.
The Future Foundations
by Michèle D. McCullom '87

Program of Cornell, they are being renovated. Even if we rebuilt Stone Hall its look would change. I cannot think of one reason to keep Stone Hall up."

Barbara Ebert, Executive Director of Historic Ithaca, argued the architectural importance of the building. "Stone Hall has a higher level of architectural detailing and greater use of material than any other building today. The combination of brick, limestone, metal, wood and stone foundation make it architecturally significant. It is part of a tripartite scheme with Roberts and East Roberts. In a sense these buildings are what McGraw, Morrill and White Hall (Stone Row) are to the arts quadrangle. They represent the foundation of the school."

According to Professor Joe P. Bail, "Stone Hall has little redeeming grace. It is an old, nearly square building appended to Roberts, poorly maintained over the years with electricity, water and heating problems. The College of Agriculture and Life Science buildings that hold nostalgia are still here. But Stone Hall has outlived its usefulness. The new facilities promise greatly improved offices, classrooms and other accommodations."

Professor Royal Colle, Chairman of the Department of Communication, stated, "The two principal issues involved are the physical plant and academic program. The structure itself has become the important issue. But also involved is the issue of how well the building serves our academic needs." Peter Trowbridge, Coordinator of Landscape Architecture, said, "The landscape architecture program is dispersed on numerous floors of two buildings on campus, which makes it difficult to teach since the program's courses require one-to-one instruction."

Colle stated, "What is important is for us to get on with the academic program. What we can accomplish in a new building is more beneficial to the students than retaining the physical structure of the old building." Dean Call and Associate Dean Wing agreed that the things that make the college great are the students and faculty, not the buildings. Associate Dean Wing added, "We have to move ahead and prepare for the future."

Academic 1 is slated to contain a 600-seat auditorium, a 400-person dining facility, offices for the College of Agriculture and Life Sciences administration, and office and classroom space for the departments of education and communication and landscape architecture.

Barbara Ebert does not agree with this reasoning for Academic 1. She said, "First look at the reworking of Goldwin Smith, Comstock, Morrill, Rockefeller and the Law School for better use in academics. Second, looking at the new buildings constructed from SUCF, some have had problems."

Barbara Ebert and the Historic Ithaca group awaited the decision of the court so they could present many of the unresolved points.

On November 13, 1986 the Court of Appeals refused to hear the case.
FIFTEEN YEARS

Among the multitude of volunteer student service organizations on the Cornell campus is one group with a 15-year history of always being there when people in the community need someone to talk to.

EARS, an acronym for Empathy, Assistance and Referral Service, is composed of students specially trained to counsel people who want to talk about personal problems either on the telephone or during visits to the group’s office in Willard Straight Hall.

The EARS philosophy, according to Tanni Hall Salustri ’76, counselor/advisor for the program, is to listen to clients and help them solve their own problems. Sometimes it is necessary to make a referral to a local agency that specializes in aiding persons with particular problems such as alcoholism or eating disorders, she said.

The 35 to 40 counselors in the organization usually help between 125 and 150 clients each month.

But the EARS program is actually much larger than the number of counselors would indicate.

Each semester, approximately 150 students sign up for beginning training, Salustri said. Another 75 to 80, who have completed beginning training, are involved in advanced training. Training sessions last for about two-and-a-half hours each week.

After advanced training, the final step on the way to becoming a counselor is satisfactory completion of a “long role-play.” This role-play is a simulated problem situation during which experienced counselors evaluate how well a prospective counselor interacts with a stand-in client.

In addition to a counselor’s normal two-hour or three-hour weekly shift, a monthly two-hour weekend shift and a monthly workshop, new counselors must also attend weekly support groups for their first four weeks, Salustri said.

Many of the counselors devote even more time to the program because they are involved in training new participants and some take part in EARS’ outreach program, which conducts stress management and communications skills workshops for dormitories and campus groups.

This tremendous time commitment by student volunteers at such an academically strenuous university is what makes EARS unique, said Salustri, who has worked in the Dean of Students Office as counselor/advisor to EARS since January 1986.

In addition to their dedication to EARS, the counselors and trainees also share a desire to help people. “They all get very excited about being able to contribute to the community,” Salustri said.

Beyond those similarities, the EARS participants are as diverse as the rest of the Cornell student body. Counselors represent a variety of majors in many of the colleges on campus. While some consider counseling for EARS good experience for a career in psychology or human services, others value the opportunity to improve interpersonal skills.

Counselor Nancy Dakin ’87, said she has recognized both these benefits from her experience with EARS.

A senior biology major in the College of Agriculture and Life Sciences, Dakin has been a counselor since the spring of her sophomore year. She was able to begin counseling so early in her Cornell career because she began EARS training during the first semester of her freshman year.
OF LISTENING

She was motivated to become a part of EARS by materials included in an orientation packet she received during the summer before her freshman year. "I had this feeling that I'd learn a lot and the skills would help me even if I didn't become a counselor," she said. EARS trains people to be non-judgmental and to develop their listening skills. Both attributes are useful in daily interactions with friends, Dakin said.

Counseling can be both rewarding and frustrating, according to Dakin. "It can be frustrating if you feel you weren't as able to help as you would have liked to be. But if you feel you've done your best, it can be very rewarding. Overall, it's very rewarding and sometimes it's especially wonderful if you really click with a client and you are able to use your skills to help the person," she said.

The EARS experience has helped Dakin decide what she wants to do after graduation. "I know I want to be in a helping profession—one that involves interaction with people in some way," she said. "I am interested in working with people one-on-one and that's something EARS has helped me find out."

Neurobiology and behavior courses in the agriculture college have also furthered her understanding of psychology and thus aided her counseling efforts. "I feel strongly that you can't really understand the mind without understanding the physical basis for the mind," she noted.

Dakin hopes the value of her EARS experience and her education in biology will be recognized by admissions officials at graduate schools where she has applied to study psychology.

Another senior who hopes to use her experience as an EARS counselor in a human service career is Patricia Harney '87, a human development and family studies major in the New York State College of Human Ecology.

Harney began EARS training in the fall of her junior year and started counseling the following spring. She agreed with Dakin's assertions that counseling can be both frustrating and rewarding. "If a client has a very serious problem, sometimes you wonder 'what can I make?' You hope a referral will help, but you usually don't see the effects of what you do."

However, Harney noted, "It is often rewarding when clients do call back and tell you, 'As a result of our conversation I did this and it helped.'"

Like Dakin, Harney has also applied to graduate schools for admission as a psychology student. However, she is considering deferring any offers of admission to take some time to work with a social agency.

Dakin and Harney would not have been able to gain counseling experience as volunteers for EARS if they had attended Cornell 15 years earlier, according to Associate Dean of Students Howard Kramer.

Kramer, who was involved in the establishment of EARS in 1971, recalled that the program was originally staffed by spouses of faculty members and graduate students.

The University had noted a need for peer counseling and asked those spouses to participate, Kramer recalled.

However, undergraduates began getting involved and many of the spouses departed from the community, leaving EARS as a student organization. An assistant dean of students was hired in 1971 to oversee EARS and the position of EARS counselor/advisor was created in the fall of 1980, Kramer said.

The students who worked for EARS in the past and those currently involved with the program deserve credit for its growth and excellent reputation, he said. "The counselors are recognized as people who really can do a good job of responding to a person, listening and caring," Kramer added.

Salustri noted that EARS' reputation is recognized by coordinators of peer counseling groups at other colleges. They are amazed by the fantastic commitment to EARS exhibited by counselors and trainees, she said.

And Salustri noted that this praise is well-deserved. "These students are doing a job that some professional people are paid to do at other agencies in Ithaca and elsewhere."

by Thomas J. DeLoughry '87
Husband-and-wife partnerships aren’t uncommon in our society, and it’s not really surprising. After all, the closest relationships are built on a foundation of shared interests.

Married couples working in the same field, however, need just the right mixture of compassion and flexibility. Carroll Glynn and Daniel McDonald, both assistant professors in the Department of Communication, have found the right recipe for both a compatible marriage and a successful professional association.

Initially, Glynn and McDonald embarked on divergent paths. She was raised in West Palm Beach, Florida, and obtained her Bachelor of Science degree in forest resources and conservation at the University of Florida. “I wanted to be a science writer and write articles for magazines,” Glynn commented. McDonald grew up in Ohio where he harbored dreams of becoming a film-maker.

The two met when McDonald also enrolled at the University of Florida to study for a bachelor’s degree in English and film studies, and love finally blossomed in a master’s level Theory of Mass Communication class.

After completing the master’s program in Florida, Glynn and McDonald headed out to the University of Wisconsin at Madison to earn their PhDs in mass communication. According to McDonald, the PhD program was invaluable in abetting the couple’s harmonious working relationship. “It’s a mixture of personality and training. We both learned the same styles at the University of Wisconsin, and I’d say we’re pretty compatible in the work arena,” he said.

Being spouses as well as working colleagues can be a ticklish task. Competition, professional jealousy and discretion in the office are sensitive matters that can unglue the most tightly-knit units. Glynn and McDonald both realize the special demands inflicted on them by their unique relationship, and have certain tenets they try to abide by. “Discretion in the office is not a factor for us. It is not appropriate to act in a certain manner and we don’t like to impose private problems on others,” Glynn commented.

One benefit of a two-professor marriage is the built-in support system which is derived from a mutual interest in the same field. One partner can readily sympathize with the other about the pressure of deadlines and papers, the hassles and heartaches of teaching. “We are both aware of the different deadlines and can be supportive. The other person knows what you are talking about, which is helpful,” McDonald said.

Linda Myers ’64, is the publications coordinator at the Johnson Graduate School of Management as well as the managing editor of Cornell Enterprise, a magazine that focuses on the school’s community. In the Fall 1985 issue she wrote an article entitled “Managing a Two-Career Marriage,” about Cornell alumni involved in marriages and full-time careers.

“Couples in two-career marriages in which the partners work together have one of the most difficult marriage situations to maintain,” Myers said. She feels that the couples she interviewed had cer-
tain characteristics which led to the successful integration of work and marriage. "The couples who succeeded appeared to have spouses who were very flexible. The husband encouraged the wife and the emotional support helped her."

Women working in the same fields as their husbands have particular problems to grapple with. "A woman constantly has to prove herself—I can never really slack off," said Glynn.

How does she avoid being thought of as Mrs. Dan McDonald? "I kept my maiden name so I can use it when I publish articles—that's me. I have my own friends and colleagues outside the communication department and I maintain my own interests such as racquetball and skiing," Glynn said.

Both Glynn and McDonald do occasionally tire of their 24-hours-a-day partnership. "Sometimes, I wish we didn't know the same people. There is less diversity and we don't have a very wide social sphere. We also try to avoid discussing work-related issues," Glynn commented. McDonald claimed, "If we weren't in this kind of relationship, more people would be able to see us as two separate individuals. It's a choice we made."

What advice would the members of this husband-and-wife team give to other married couples working in the same fields as each other? Glynn stressed the importance of one's identity: "Keep your own independence and self-identity. If you're not careful, your relationship could be destroyed." McDonald added, "Be aware of what you're getting into. Make your own rules." □

Dan McDonald and Carroll Glynn juggle careers in the same field and parenthood. They are both faculty members in the Department of Communication and recently became the proud parents of their first child, Patrick Joseph.
Many people are slightly embarrassed the first time they call or stop by. A number of them have misconceptions about the services available, are concerned about confidentiality, or wonder about the costs involved. But 13,000 members of the Cornell community went to the Contraception, Gynecology, and Sexuality Service at the Gannett Health Center in the 1985-86 academic year, and almost all of them found the assistance they needed.

Established in August of 1980, CGSS is now a major component of Cornell's health care services, offering routine gynecological care, counseling, contraception, and pregnancy testing. Treatment for sexually transmitted diseases, care for rape victims, and information about human sexuality issues is also available. Confidentiality is always guaranteed.

Providing all of these services is not always easy. However, CGSS has the help of 50 volunteer students who each give a total of 70 hours of work each semester as either medical assistants or interviewers.

CGSS interviewers are the first people clients usually speak with, and must help to make the clients feel comfortable. Interviewers complete a medical history form, offer the client pamphlets and other information they might need, and explain the steps of a pelvic exam or the different forms of birth control, if the client asks.

Student medical assistants (MAs) work with the clinicians during physical examinations. Responsibilities include preparing the rooms before the exams, handling and delivering lab specimens, and helping the clinicians. Only women are accepted as medical assistants.

Students volunteer for many reasons. Some, like Stephanie Grossman '88, read a flyer advertising the positions, and decided to find out more about it. Stacy Chervin '88 was in the Gannett Student Insurance Office, and happened to see an application. "I didn't even know what the position was. But I was interested in psychology and so I decided to learn to be an interviewer."

"Certainly some students are premed, but not all," said Judy Burrill, Volunteer Coordinator at CGSS. "Some interviewers are involved in women's health issues, and some just want to work with people." Other students have an interest because their parents have worked for Planned Parenthood.

A few students are practically recruited. "We are definitely interested in seeing some more men as interviewers," Burrill explained. "Sometimes men have a different point of view on issues," Grossman said. "Some people might feel more comfortable asking a guy a question than a girl. But the clients always have a choice:" Males are encouraged to come to CGSS with their partners.

Volunteers at CGSS accept a great deal of responsibility when they join. Those in training must attend the introductory program for 20 hours, as well as complete up to 20 hours of on-the-job training. As an interviewer or MA, students are expected to work at least four hours every week for two semesters after a semester of training.

Volunteers are also responsible in part for the welfare of the client. Strict confidentiality is mandatory.

Because of their hard work, the volunteers have become an essential part of the CGSS program. "Volunteers act as an outreach for us," explained Nanne Van Fleet, RN/CNA/Supervising Nurse of CGSS. "They keep us informed about changes in students' feelings and values. In this way we keep our finger on the pulse of the students."

"In addition, they give us many hours of service in return for skills and knowledge they acquire," she added. This maintains the fees at levels students can afford. Because CGSS is currently understaffed, volunteers also reduce the waiting period for assistance, helping to keep everything running smoothly.

But the students don't seem to mind putting in the hard work they are asked to do. Partially, it is because the volunteers sincerely believe CGSS is a valuable service to the community.

"During training, we discuss almost all aspects of human sexuality," Longsworth explained. "Because we cover such a wide spectrum of concerns, people can feel comfortable coming in for help for just about any problem."

"The staff is very good. They'll really go out of their way to help someone," volunteer Jeffrey Sisson '89 said. MA Tracy Ballard '88 agreed. "They're very much geared toward educating students. They stress preventive medicine, which I think is important. I am really impressed with how much they care."

Perhaps the clearest way the staff at CGSS show their concern for their clients is their policy of absolute confidentiality. "The volunteers are told that confidentiality is one of the most important issues here," Burrill explained. "They sign a form stating they'll adhere to this. We deal with this in training; the patients must feel comfortable here."

The other reason the volunteers are enthusiastic about CGSS is what they gain personally in return for their work. "You learn to see things the way others might," Sisson said.

"It's a really good feeling to interact with the patients, not just cleaning and filling out forms," Grossman added. "It's all worthwhile when I can help someone out."
Soviet Scientists Visit Geneva

Four Soviet Union agricultural scientists visited Cornell University’s New York State Agricultural Experiment Station at Geneva on November 3 and 4, 1986. The group, which was sponsored by the Agricultural Research Service of the United States Department of Agriculture, was part of a germplasm exchange team from the USSR.

V.L. Vitkovskij, first vice director, N.I. Vavilov Institute of Plant Industry, Leningrad; V.S. Sotchenko, director, Kuban Experiment Station, near Krasnodar, Ukrainian S.S.R.; A.V. Konarev, senior research, Biomedical Division, N.I. Vavilov Institute; and S.V. Kuznecov, senior research, Corn and Grain Division, N.I. Vavilov Institute spent their time in Geneva touring the National Clonal Germplasm Repository and the Northeast Regional Introduction Station. The Soviet scientists exchanged information with several Geneva and Ithaca scientists involved with plant breeding activities.

Because the clonal repository for apples and eastern grapes and the Plant Introduction Station are located on the experiment station’s campus, the team chose Geneva as one of the five sites they would visit. They also planned to visit scientists working on plant collections in Maryland, Wisconsin, Minnesota, Iowa.

Kinsella Honored by Food Scientists

John E. Kinsella, a Cornell University food scientist and an authority on food protein chemistry and lipid biochemistry, was recently awarded the 1986 Philadelphia Lectureship Award of the Institute of Food Technologists. He was cited for “significant contributions to the advancement of food science” at the organization’s regional October 14, 1986 meeting.

Kinsella, a Cornell Agriculture and Life Sciences faculty member since 1967, is the Liberty Hyde Bailey Professor of food chemistry, the General Foods Distinguished Professor of Food Science and the director of Cornell’s Institute of Food Science. He received the Borden Award of the American Dairy Science Association in 1976 for his research accomplishments.

Profs. Bauman and Roelofs Receive USDA Awards

The U.S. Department of Agriculture has honored two Cornell University scientists for their separate work involving the use of bovine growth hormone to boost production efficiency of dairy animals and the use of insect sex attractants for pest management.

Dale E. Bauman, professor of nutritional biochemistry in the agriculture college, received a Superior Service Award. Wendell L. Roelofs, the Liberty Hyde Bailey Professor of Insect Biochemistry at Cornell’s Agricultural Experiment Station in Geneva, received the Distinguished Service Award, the highest honor given by the USDA.

Bauman has focused his research on the regulation of nutrient utilization in dairy animals, which has led to dramatic increases in the efficiency of milk production through the use of bovine growth hormone. The growth hormone is expected to have a major impact on animal agriculture in the United States and in other parts of the world.

Roelofs was recognized for his research and contributions to the biology of insect sex attractants known as pheromones that are produced by female insects to attract males. His work over the past decades in isolating, identifying, synthesizing, and using insect pheromones has led to improved pest management systems for major agricultural crops.

Cornell’s Division of Nutritional Sciences will administer a new program to establish “Centers of Excellence” in nutrition at selected universities and medical colleges across the nation.

Supported by the Pew Charitable Trusts of Philadelphia, the $5.9 million program will provide five-year grants of up to $1 million to a minimum of five centers. A national advisory committee of leaders in the field of nutrition will oversee the program administered by Cornell.

Malden C. Nesheim PhD ’59, director of the Division of Nutritional Sciences, will serve as director of the Pew grant program; Michael N. Kazarinoff PhD ’75, associate professor of nutritional biochemistry at Cornell, will be associate director of the program. In addition to sponsoring research and training, the centers will conduct annual meetings to discuss programs and problems, share research results and consider current issues in nutrition.

Norman R. Scott PhD ’62, director of research for the College of Agriculture and Life Sciences, has been elected a fellow of the American Society of Agricultural Engineers. This is one of the highest distinctions a member of this worldwide professional and technical organization can achieve.

Chairman of the Department of Agricultural Engineering from 1978 to 1984, Scott has directed his research mainly toward bioengineering. His projects have included earth-air heat exchange, solar heating and cooling of greenhouses, mechanics of milking, and automation of dairy herd management. He has also developed an automatic estrus detection system and a system for electronic identification of animals.
The BUG Man

He was the kind of boy who always wanted flaps on his pockets to keep the crawly things in. Now Professor Edgar Raffensperger works in Cornell University's entomology department, and has a laboratory filled with containers for his "crawly things." But Raffensperger does not spend all his time in the lab conducting experiments. "Eighty percent of my time is spent teaching and helping students handle the academic pressures at Cornell," said Raffensperger. The remaining 20 percent of his time is spent in research and extension.

"I intend to make my classes fun. Not many people at the University have a significant objective that students enjoy," emphasized Raffensperger. Cultural Entomology is one of the courses Raffensperger teaches. It is designed to give students a general presentation of insects, with attention to their roles in nature and civilization.

Students find his class interesting and fun because of Raffensperger's sense of humor and his unique way of presenting information. "Professor Raffensperger brought in a huge cockroach on a leash one day and let us walk it around," said Cliff Markell '87, one of his former students. "I tell students that it's my attack cockroach," laughed Raffensperger. "He's funny and crazy. One day he brought in edible insects and had us try them," Markell said.

Raffensperger's students are not the only ones who tried his chocolate insects. David Letterman, a popular late-night talk show host, invited Raffensperger on his show. "He ate a chocolate covered ant," said Raffensperger. When

Letterman said it tasted like bitter chocolate Raffensperger explained to him that the bitterness was the formic acid in the ant. "The audience screamed and Letterman made a disgusted face," said Raffensperger.

Sometimes Raffensperger feels like making disgusting faces in restaurants. He is an expert on cockroach scents, which are very strong if you know how to recognize them. When he enters a restaurant he can tell if there are any roaches. "The fact is, it is virtually impossible in the food industry to be totally free of roaches. If I find the smell really offensive I just look at the menu and decide there is nothing on it that interests me," explained Raffensperger.

What does interest Raffensperger are his students. He is academic advisor to the men's baseball team. "The most unique thing about Raffensperger is that he cares about the kids he works with. He takes a real interest in what they are doing whether it is in his class or the baseball team," said Guy Leach '88, a member of the varsity baseball team. "He was one of the first people I talked to at Cornell about the school, and what I was interested in studying. He helped me get a focus," he said.

Raffensperger knows how to help students with the academic and social pressures at Cornell. He has written a pamphlet for students who want to do both a top job in academics, and participate in activities such as athletics, music or drama. The pamphlet contains tricks of the trade and techniques for managing time and energy. One of the techniques is "Sit in row 2, 3, or 4. It's easier to maintain attention even with a dull professor if you sit near the front. And lectures provide good face time if you sit where you can be seen. Back rows are used for sleeping, and the professor knows it."

"My first concern is that students enjoy their education. That is why I teach the way I do. I want students to have fun learning things they never believed could be fun. And I also want them to discover that their level of work can be excellent as well as their level of outside activities," said Raffensperger. He continued, "When you come down to it, Cornell is a super place, and I just try to help students realize this." □

Students should enjoy their educations, believes Edgar Raffensperger, who teaches cultural entomology.

by Nancy A. Richardson '87
ABOUT THE ISSUE

"Cornell Changes" or the "Jennie McGraw Rag", is played on Cornell's McGraw Tower first thing every morning. The song perhaps reflects Cornell itself; the University is constantly changing. In this issue, we will look at how Cornell is changing, as well as at those who have observed changes not only at Cornell, but across the country and around the world.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy '53, Linda Myers '64.
OBSERVATIONS IN LAOS:
PUTTING THE PIECES
BACK TOGETHER

If you mention the southeast Asian
country of Laos to most Americans, it
would strike a chord. They would re-
member it as one of the places they of-
eten heard about on the nightly news
over a decade ago. It was there, as well
as much of that part of the world, that
the Vietnam War raged.

Foreigners today are not usually per-
mitted inside Laos. Yasser Islam '88,
however, was allowed to go because
his family lives in the country. Islam's
father is the representative for the
World Health Organization in Laos. Is-
lam spent this past summer in the Laos-
tian capital city of Vietiane and the sur-
rounding countryside, observing the
work of several international develop-
ment organizations as part of an in-
dependent study project in the Depart-
ment of Education.

Islam spent much of his time study-
ing the work of those agencies helping
farmers in the countryside. Many of the
farms Islam visited are arranged as co-
operatives. On these cooperatives, farm-
ers are organized into a working system
where they pull the land together and
all the land in turn is owned by the co-
operative. The farmer works on the land
and gets paid in rice, according to how
much work he puts in. Islam said using
the cooperative system helps bring in
important machinery, because the in-
dividual farmers would be too poor to
have access to it otherwise.

Islam described the farmers of Laos
as very poor, with poor communica-
tions facilities and few scientific institu-
tions to help. "In some disciplines, the
number of trained scientists there are
you could count on the fingers of your
hand," said Islam.

This is where agencies such as the
Food and Agricultural Organization
come in. The FAO aids the Laotian farm-
ers in many areas, such as training ex-
tension agents and helping the Lao to
diversify their crops.

The role of the government extension
agent is to go out into the country-
side and show the farmers improved
cropping practices and how to grow
new crops. This technical information
must be adapted to the farmers of Laos
because of the lack of research facili-
ties in the country, and therefore most
of the information used comes from
other neighboring southeast Asian coun-
tries such as Thailand.

One specific FAO project Islam ob-
erved involved the setting up of fisher-
ies. The FAO helps farmers start a fish
pond, bringing in fish from southeast
Asia as well as from other parts of the
world. The fish food is low in cost, com-
ing from local forages and livestock
waste. In fact, according to Islam, some
of the fish ponds are built under pens
where lightweight animals are kept.
Therefore, the animal waste falls di-
rectly into the pond as fish food. Although
the farmers sustain themselves mainly
on rice, the fish is used as a protein
supplement to their diet.

Islam said this project is beneficial
because it uses low cost technology
and equipment. "If they needed a
whole lot of machinery," said Islam,
"they wouldn't be able to benefit from
the project."

Several Australian organizations, ac-
cording to Islam, are also trying to help
the Lao. The Australians are also in-
volved in projects concerning irrigation
livestock production, which involves
bringing in new breeds and producing
forage.

Many of the communist eastern Eu-
ropean countries are trying to help out
as well, but in many ways they are un-
successful. According to Islam, many
Lao go to these countries to study
production techniques, but what they
learn is often useless. One man Islam
knew came back from an eastern Euro-
pean country, but he could not apply
anything he learned to Laos. This was
because much of what he was taught
revolved around sophisticated machin-
ery, something quite advanced for a de-
veloping country such as Laos.

Islam spent only one month in Laos,
but what he will remember most is the
friendliness of the people. "They
suffered a lot during the war," said Is-
lam. Many have stayed because they
have no place else to go, or they do not
want to live in a refugee camp but
others have fled across the border to
Thailand. "Many of them do not want to
live under a socialist government," Is-
lam said.

The war in southeast Asia may still
leave a bitter taste for many. Laos has
been communist since 1975. Yasser Is-
lam said he saw much destruction left
over from the war. But the Lao are try-
ing to rebuild, and perhaps with the
help of international agencies some
progress can be made.
The Answerto

The farm economy in America has been suffering economic jolts. However, James O’Connor, systems analyst staff member in the Department of Animal Science at Cornell University’s College of Agriculture and Life Sciences, hopes that the results of his research can help make dairy farms in the northeast more competitive.

His project is to determine how to feed northeastern United States dairy cows more efficiently to yield more milk. In the past, computations took so long to process that his project was not feasible to implement on a large computer such as the IBM mainframe. That is, until he had the resources of the supercomputer at Cornell’s Center for Theory and Simulation in Science and Engineering (Theory Center).

In 1978, to resolve these computational problems, the idea for the Theory Center was initiated by Dr. Kenneth Wilson, Nobel laureate in physics at Cornell, and other researchers. Wilson convinced Congress and the National Science Foundation (NSF) to establish a national program to make the most powerful supercomputers available to science. In 1985, the National Science Foundation (NSF) provided $21.9 million to establish the Theory Center.

The Theory Center’s primary resource is called a supercomputer because it provides at least a factor of 100 times more memory and speed than a conventional IBM mainframe, according to Wilson. The Cornell National Supercomputing Facility (CNSF) is currently made up of the most advanced mainframe computer of its kind, the IBM 3090-400-VF, with seven attached scientific processors, which give it additional supercomputing power, and several advanced IBM graphic work stations. International Business Machines Corp. has pledged to provide $30 million in equipment and service to the project.

What is amazing is the wide range of disciplines represented in the research being conducted on the supercomputer. To date, the Theory Center lists 208 projects that range from animal science to ecology and systematics. O’Connor works on a northeast regional dairy project first begun by David Mertens PhD ’73. The dairy cow eats corn, hay and nutritional supplements; the model simulates the amount of the nutrients present as the food flows through the animal. The supercomputer allows O’Connor to simulate digestion in the first stomach of the cow, a model that requires tremendous amounts of computing time. The objective of his model is to describe the internal and external factors that affect a cow’s productivity. O’Connor says, “There is a need to develop more biologically correct computer models. Model results will be used to consider how much corn, hay and additional nutrients are needed to feed dairy cow herds to produce a maximum amount of milk.”

This project is part of a regional northeast project that will make dairy farms more efficient. It will hopefully assist the dairy industry to improve farm efficiency and remain competitive in the world market, explains Prof. Charles J. Sniffen, head of the Department of Animal Science. Their research will aid future agricultural farm feed policies.

Another project on CNSF, conducted by Dr. David Weinstein, Dr. Mark Harwell and research support specialist Linda Buttel from the Ecosystems Re-

Researchers study the effects of pollution on forest growth using the Supercomputer.

The formation of a black hole is studied by Professors Saul Teukolsky and Stuart Shapiro, using the supercomputer.
Any Question

by Karen Kao '88

Research Center at Cornell University involves a model to study the effects of such influences as pollution and acid precipitation on forest growth in the United States. The basic model, called FORNUT, simulates the growth of thousands of individual trees. This model considers the multitude of environmental factors that affect seedling establishment, tree growth, and growth that occurs on stumps.

Dr. Simon Levin, Director of the Ecosystems Research Center explained, "With the use of the supercomputer, the model is being simplified to predict the future behavior of forests more efficiently and reliably. The model will be used to determine whether recent changes are natural or are caused by the effects of air pollutants." A successful model output would provide the Environmental Protection Agency with a better tool to plan environmental policy.

The Cornell Theory Center is hub of a high-speed data communications, NYSERNet. Mr. Scott Brim, manager of the Network Systems at the Cornell Theory Center, described the network as a hierarchy of several levels. A university such as Cornell has a lateral network of optical fibers that links the computers on campus. A regional network like the New York State Education and Research Network, NYSERNet, connects universities and perhaps some industries in that area. NYSERNet includes the University of Rochester, City of New York Universities, State University of New York at Buffalo and several other universities. TheoryNet links the Cornell networks, and the national backbone network, NSFNet, links the regional networks. "I would guess that we connect over 10,000 computer systems in the United States and a few selected places in other countries," said Brim.

Dr. Bruce Land, neurobiology PhD '76, a CNSF graphics consultant, describes how easy it is for a user at the University of California to use the Theory Center's supercomputing power. "The user logs onto a local computer. Then his computer would make a connection to a remote computer, the supercomputer. Another method involves a modem and either a graphic or text terminal. The user calls an 800 telephone number to connect directly with the supercomputer."

A researcher saves time by using the supercomputer. To run one test trial of O'Connor's project, which is described earlier, formerly took 24 hours of processing time on the IBM mainframe. This same test now takes two hours on the supercomputer. Since a test requires many runs to ask a question, only the supercomputer makes O'Connor's project feasible.

A software development program and an advanced parallel processing development program are currently on the front burner. A computer concept known as parallel processing is in its experimental stage. As an illustration, imagine a hairdresser who takes ten hours to cut ten heads of hair. However, if ten hairdressers performed the identical task at once, it would merely take one hour to complete. This is similar to parallel processing. A researcher runs a trial by running processes simultaneously, thus saving large amounts of time. Extend this analogy to computers. At this moment, this time-saving concept features three computers, each with several processors that run in parallel at the Advanced Computing Facility at Cornell. As a result, the Theory Center hopes to provide scientists with the kind of supercomputing power and speed that make projects like O'Connor's possible.

The Research Institute offers industry the opportunity to conduct research on the supercomputer and participate in all Theory Center activities.

The best news is that the use of the supercomputer makes formerly impossible projects possible. O'Connor and Sniffen will be able to determine how to most efficiently feed a dairy cow; Weinstein, Buttel, Harwell and Levin will be able to determine the possible effect of pollution on future forest growth. The result will be accurate data to guide our future economy and environment.

The supercomputer provides at least a factor of 100 times more memory and speed than a conventional IBM mainframe.
FOUR DECADES
THE WAY IT WAS

by Mark Paikoff '88

The city of Ithaca, New York, home to Cornell University's College of Agriculture and Life Sciences, will celebrate its centennial starting in 1988. Over the span of those years, the college has undergone many changes. The United States endured two world wars and social changes that affected life on and off the campus; prohibition came and went, nuclear war became a reality and the sexual revolution took the nation by storm.

In conversations with two ag college professors who were around during the turmoil, it became apparent that two main events changed the face of the College; World War II and the protests that stemmed from the turbulence of the 1960s with the Vietnam War. These professors believe that these two events helped shape the students in the ag college.

Stanley Warren BS '27 PhD '31, Professor Emeritus of Farm Management in the Department of Agricultural Economics, taught students in the ag college from 1933 through 1972.

"When I entered college, there was a general feeling that wars were history," Warren said. "After World War I, there weren't going to be any more. World War II changed all that though." Warren said Cornell's campus played host to a large number of army and navy trainees during World War II. "They went to some classes but the enrollment was way down," he said. "Most of the freshmen stayed until they were 18, then it was off to war," Warren said. Things on campus were slow according to Warren, then the war ended. After 1945, "They all came back at once," Warren said adding that there was "a surge in the number of students who had had one or two years of college."

Robert Polson, Professor Emeritus in the Department of Rural Sociology, said, "Once the war was over, we were inundated with students, they just poured in here."

Polson had been working as New York State Supervisor for the Emergen-
thinking and had more experience on which to base their opinions on public affairs.

Polson added that the war experience gave students a firm background to support their position. "They just poured out the facts and figures." Warren agreed with this. "The post-war students were a conscientious bunch," he said.

Did the war change the fields that students were interested in? Polson thought so. After the war, "There was a tremendous increase and interest in the social sciences such as economics and sociology," he said.

Warren agreed that World War II had a big effect on the student body, but he

Robert Polson, Professor Emeritus in the Department of Rural Sociology.

broadened the scope of change. After the war, technology increased steadily in the United States and abroad. "There was a decrease in the number of farmers and the number of [ag college] students from farms declined," he said. "The occupations of their parents changed after the war, they went from farmers to everything else imaginable."

Warren said, "I taught classes in farm management and farm appraisal. When I taught my last class in 1972 a number of students in the class were sons and daughters of previous students." However, Warren said, looking back, "When I lined them up with their dads at the same age, they weren't all that different." The major differences that Warren saw were the changes in occupation and more educational opportunities available before the students got to Cornell.

Warren said he believes that there were "many changes in our rural areas" and those had the biggest effect on students. He said he believes the changes were a result of the war.

The war did provide its unique moments. Polson recalled one such event that happened in 1946 or 1947: "Professor Anderson who taught the introductory class in rural sociology was adamant about students falling asleep in his class. He asked one such student to come into his office after class one day. The student said 'I hope you will forgive me for falling asleep in your class, my wife had our first child last night and I've been up the whole time.' Anderson was very embarrassed." Polson said, "Many of those who came back from the war already had families of their own. I don't think births in the classroom have been a big problem in the past 15 years."

Another period in history that had a big effect on the Cornell campus, if not just the ag college, was the turbulent decade of the 60s.

When asked if World War II set the stage for the protests of the 1960s, Polson said, "I doubt it. The main thing that I found was that when I confronted a demonstrator, he could not defend his position." Compared with the post-war years, Polson said, "Those students who endured World War II had a chance to think things through far more clearly than the demonstrators ever did."

Polson added that there was also a shift in the academic interests of many of the students. "In the 60s, psychology, social psychology and abnormal psychology were popular fields. But," he said, "there was still a great demand for training in the social sciences."

Warren, who often took his classes on field trips to professional farms, said the protests and the Cornell reaction to them often had humorous results when he and the class were away from Ithaca. "I remember one day in the fall in the late 60s I traveled 15 miles north from Ithaca to see a farmer and his wife about a field trip. When I got there, they told me they had heard there was a riot going on on the Cornell campus. I had to go out to West Groton to find out about it."

In 1970, Warren took his class on a field trip 60 miles north of Cornell and heard that Cornell was closed because of a demonstration. We left while it was still open, so we went on with the trip," he said.

Regardless of the changes in the students, Warren said the ag college students were a special lot. One of the things that stayed with him after he left the staff is something that happened in 1969. "It was right before Spring Day [now Springfest] and many professors expected attendance to be low while boys were out looking for their dates. I never took attendance because my class had more than 100 students. This time I did and there was perfect attendance. I felt the students put on an extra effort to come because other professors were cancelling classes." It is this dedication to academics that stayed with Warren as he remembered his days at Cornell.

The New York State College of Agriculture and Life Sciences has survived two world wars, social changes and a decline in the number of farmers. The College has come through with flying colors. Ithaca will be a century old next year and the ag college should be around for the next few centennials as well.
Courses Gain a New Flavor

"The overall goal of food science," said the Department of Food Science's Professor Emeritus Frank Shipe PhD '49, "is to improve the quality of the food supply to the consumer and also to reduce the cost." In keeping with this goal, food science faculty members have re-designed the College of Agriculture and Life Sciences' food science program to better prepare undergraduate students for the professional world. The two new curricula, Food Science and Food Technology, offer students more free time in their schedules so that they may specialize in one of many different food science aspects.

Food processing and handling methods must be developed to maintain food quality during the ever-increasing time between food's production and its consumption. Food scientists use the principles of biology, chemistry, physics, engineering and more to produce high quality, nutritious and safe foods for the consumer. Food scientists are needed in industry for food production, research, marketing and quality control, in government for food safety and composition standards and in education for teaching and research. The new food science curricula were designed to allow more free credit hours for specialization in these areas.

In the past, all undergraduate students were in one curriculum. The 1987 spring semester, however, introduced the two new curricula. Preparing students for jobs in research, one curriculum, Food Science, encompasses the basic biological, chemical, physical and nutritional food properties. On the other hand, students interested in food processing or product development jobs can choose the Food Technology curriculum which stresses the application of scientific principles to food production and preservation.

In addition to the curricula changes, the department also changed its credit requirements. The department reduced the number of required core credit hours from 38 to 32 so that students have more time to take other classes in which they are interested. Another change the department made in the curriculum was to add four new classes, for example, a food engineering course. The department also formally revised six current classes and internally changed about ten classes.

"We think they [the new curricula] are more versatile," said Shipe, who is also the chairman of the curriculum committee. He added, "One of the common criticisms is that food science was more high power science than some of the students wanted." Now students in the applied sector will not have to take as much chemistry and biochemistry. Instead, they can use their extra credits for business, nutrition or economics courses or courses in whatever area they wish to specialize.

Wendy Anderson '87 said that the new curriculum is more in accordance with the curricula of other schools than was the old program. "It is effective in that it will bring more students into the program," she said. Anderson, who is interested in working in product development for a large company, feels the new requirements will help food science majors develop more diverse and well-rounded backgrounds.

Diane Conklin, a second year food science graduate student, feels the curriculum change is positive because it provides students with more course options and more scheduling flexibility. "The new curriculum offers a good opportunity for those students who don't want a hard core science background. It opens up a few more avenues for undergrads who want to go into management and business aspects of food science," Conklin said.

A recent Cornell University graduate, Rob Hardy '85, is currently working as a food technologist for Ragu Foods. He said that when he started working, he lacked a good applied background and an understanding of dealing with federal regulations and documentation. He also feels the new curricula are beneficial because the they will provide the students with the broader base he felt he lacked.

Professor Richard Ledford, Chairman of the Department of Food Science, also feels the new curriculum will benefit the students. He said that the actual changes in the course work are few but that the new program is designed to provide students with opportunities for more avenues of study. Ledford said the Department of Food Science will be adding one engineering professor to its staff in July, and eventually the department will hire another sensory evaluation professor. The department is also ordering equipment for a new food processing and development laboratory.

The Department of Food Science would like to attract more students. "We have more job openings than qualified students," said Shipe. The department is interested in appealing to students with other majors such as biology, biochemistry and nutrition who want to supplement their courses to provide themselves with a more applied career. The department is hoping to attract new students as well as transfer students. With increased curricular flexibility, increased resources and increased student enrollment, the Department of Food Science can only move forward.

by Shari Tibbetts '87
Look out, there's a revolution taking place! It's a revolution that is taking place in supermarkets all across the country, according to Joseph Hotchkiss, a food packaging scientist and an associate professor of food science in the College of Agriculture and Life Sciences at Cornell.

"There are as many changes taking place in food packaging as in anything else now," says Hotchkiss. The way the foods we buy are packaged is changing quickly, both in its form and in the material used to make it.

The material taking over in food packaging is plastic. Easy to mold and highly variable in their softness and color, new plastics that are strong yet cheap to produce are being developed by polymer chemists. Making the packaging, however, is not as simple as pouring plastic into a mold.

Squeeze bottles for ketchup, for example, use a Japanese product that took decades to develop, according to Hotchkiss. Since ketchup reacts rather quickly with oxygen, its packaging is made up of five to seven layers of material, each layer serving a different purpose. "Some layers provide strength, others provide the barrier protection to oxygen, some layers protect other layers and still others tie the whole thing together," Hotchkiss explains. There is much more to plastic packaging than meets the eye.

One reason for the switch to plastic is economic—it weighs less, so it costs less to ship. The nonbreakable packaging also leads to a lower rate of loss due to breakage.

New designs in food packaging combine practicality and aesthetics, taking into consideration the package's production cost, its usefulness and how appealing it looks on the supermarket shelf.

A major impetus in new food packaging design is the microwave oven. "Microwaves have stirred up more innovation in the last two years than almost anything else," claims Hotchkiss. "More than 50 percent of American households have them, so almost all new food products are microwaveable. If they aren't, they are rarely considered for production by food companies."

Probably the most important non-plastic packaging breakthrough is the development of aseptic packaging, the brick-shaped boxes in which many companies are now selling juice. The package and food are processed separately and then brought together and sealed without the reintroduction of bacteria. The package does not have to withstand the same processing temperatures as the food, so cheaper material—layers of paper, foil and polyethylene—can be used. Once in the "paper bottle," liquid foods, including milk, can last for several months without refrigeration.

"The developers of aseptic packaging claim that it has done more for the nutritional status of the Third World than anything else in history, because milk can now be distributed in places that lack refrigeration facilities," says Hotchkiss.

The quality of food packaged aseptically or in "retortable" cans or pouches, which are processed in a pressure cooker, is improved over that of foods packaged in metal or glass. The flavor is better and the nutrient content is higher in these foods because they are subjected to heat for shorter processing times.

"The dark side to the plastics revolution in food packaging is that the plastics are extremely durable," says Hotchkiss. "They do not decompose in the environment, and that is a problem which has yet to be solved. Research is now being performed to find better uses for the used containers."

Despite such problems, it is apparent that the food packaging revolution has arrived. "No product will remain untouched," predicts Hotchkiss. "Any that do not change will not survive."

by David Gershman '87
Improvement and maintenance are two key ingredients to providing effective research facilities at Cornell University. Over the past ten years, Cornell has spent over $20 million in renovating existing facilities and in constructing new buildings for animal research. Several million more dollars are currently invested in ongoing projects and future plans, said Dr. Fred W. Quimby, director of the Cornell Center for Research Animal Resources.

Dr. Quimby is well acquainted with the numerous projects designed to improve the quality of care for over 40,000 animals housed in Cornell research facilities. The plan to upgrade animal “holding areas” was initiated by former University Vice President of Research Dr. Donald Cooke in 1978. He included a major system for these improvements in a master plan to renovate and modernize the campus as a whole. The original plans set the deadline for completion at ten years and everything seems to be on schedule, said Quimby, who has been at Cornell since 1979.

When all renovations and new buildings have been completed, Cornell will become one of only four universities in the United States to have met standards set by the National Institute of Health. They will also have fulfilled requirements needed to become accredited by the American Association for the Accreditation of Laboratory Animal Care, an independent organization, Quimby said.

The renovations and new buildings are designed to facilitate modern methods of sanitation, ventilation, and heat distribution. New systems of water removal for cleaning purposes and outdoor access areas for the many animals living out their lives in research facilities will also be provided.

Newer, more extensive animal research facilities are especially needed at Cornell since scientists breed and raise many of their own animals used for research and teaching. Cornell maintains holding and test areas for a variety of cattle, horses, sheep, swine, goats, rabbits, rodents, cats, dogs and insects, said Quimby. This means having special accommodations suited for pregnant animals and their subsequent offspring.

Some facilities such as breeding areas need to be virus and pathogen-free. Others, such as the building for Contagious Equine Metritis, or C.E.M., need to be isolated. This facility operates for the entire state of New York in quarantining imported horses just entering the U.S. These horses come from all over the world, for whatever purpose, and must be isolated and tested for metritis before they can come in contact with other animals, Quimby said.

Many animals are used for research projects at Cornell, including dogs.

Large-animal research, one of the many kinds of research conducted at the new Cornell facilities, requires special kinds of accommodations.
Animal Care
by Amy Sliter '88

Recently completed renovations to the research facilities include the horse physiology and gestation lab at the McConnville Farm, the Pole Barn at the Teaching and Research Center, the Blair Barn, the swine barn, the Stevenson Road goat farm, as well as sheep and poultry facilities. Renovations still under way are the rodent and/or rabbit facilities in Martha Van Rensselaer Hall, Savage Hall, Uris Hall, and Morrison Hall. The Section of Neurobiology and Behavior of the Division of Nutritional Sciences is seeking improvements in the Liddell Laboratory of Animal Behavior that studies wild cold-blooded animals. Renovations are also in progress at the Stone building in Geneva, the Corson-Mudd building and the State Virus Isolation Building at the Baker Institute, said Quimby.

Entirely new buildings have been constructed for the purposes of both housing animals displaced by renovations and to permanently replace older, presently obsolete facilities. New buildings include the Levine Laboratory on Snyder Hill, the turkey barn, the Eco-Toxicology Lab and the Large Animal Research and Teaching Unit. Under construction is the bio-technology lab behind the new Comstock Hall and the new Pony Nutrition Facility. Future plans for construction include new polo stables, and a building for the natural resources department to conduct research on wild mammals, said Quimby.

Improved facilities at Cornell are necessary for scientists to effectively carry out their various studies. Animal research at Cornell can be divided into two major categories. For agricultural purposes, studies are being conducted to improve breeding techniques, to discover the effects of nutrition on both the blood chemistry and physical qualities of different breeds of animals and also to improve the production capacity and overall health of livestock. Research being conducted through the College of Veterinary Medicine strives to discover the cause and cure of diseases in many large and small breeds of animals.

The second major category of research is used primarily for future application to a variety of human diseases. For example, cats may carry Feline Coronavirus. This virus causes inflammation of the cells lining the organs of the abdominal cavity and is presently fatal when the symptoms are present. A new vaccine is presently being tested to prevent this disease. Feline Leukemia virus is similar to the AIDS virus in that cats which carry the virus develop a suppression of the immune system. Scientists believe research into this feline disease will reveal new information on AIDS in humans. Studies done with muscular dystrophy in dogs may lead to a better understanding of this disease in humans and by studying hepatitis and liver cancer in woodchucks, researchers think they may discover more about liver cancer in people, said Quimby.

Quimby said completion of present construction and materialization of tentative building plans should occur in three to four years. But improvements and modernization of facilities will always be necessary. Therefore, "Our work is never really finished," he said. It is an ongoing process to maintain proper living conditions as animals carry on their daily routines of consumption, production, and reproduction, said Quimby. It is the very least that should be done for the animals that provide such an important and necessary service to the human race.

Goats appear much happier in their improved quarters at Snyder Hill. Renovations incorporated modern methods of sanitation, ventilation, and heat distribution.
"There were reports that symptoms of the distemper had been observed among the younger set, and the epidemic showed signs of spreading."

With these words, printed in the pages of the Cornell Alumni News on April 1, 1957, Romeyn Berry '04 introduced the contagious "epidemic" of rock 'n roll. The columnist added that thus far, "the campus had not progressed much beyond calypso, a milder infection lately introduced from Africa."

In that final appearance of Berry's long-running column, "Now, in My Time," the self-proclaimed "watchdog" of the alumni urged his audience not to interfere in University affairs. "Ancient alumni and former patronesses over the age of eighty-five should force themselves to remain mute, however outraged in their finer feelings. Current interest in calypso and rock 'n roll warrants the attention of the psychiatrists and at times, perhaps, the police, but it is not to be appraised on the basis of the local standards of deportment and musical taste as they existed in 1900."

From June of 1936 to the April 1, 1957 issues of the alumni magazine, Romeyn Berry chronicled university life on the Cornell campus. Berry dedicated his career and his talent to preserving Cornell's traditions and memories. Berry once said that he had "stood in about every different relationship to his Alma Mater that it is possible for an individual to occupy: faculty grandson, applicant for admission, oldest living undergraduate, honored alumnus, Public Enemy Number One, minor benefactor, hunted felon, and fearless commentator." He understood the workings of the Cornell system better than anyone, and made it his job to give his account. Raymond F. Howes, of the Office of the Secretary at Cornell, said in 1950 that "'Rym' Berry is interested in people, and it happens that the people he knows best have lived at least parts of their lives in Ithaca and have been profoundly affected by the experience."

After receiving a law degree in 1906, Romeyn Berry practiced law in New York City until 1917. He served as a first lieutenant in the U.S. Army in World War I and then returned to Cornell as Graduate Manager of Athletics. Berry served in that capacity until 1936, heading many intercollegiate athletic committees. He was a widely sought after speaker, and often announced at track meets in Barton Hall, before a public address system was installed. But it was as a writer that Romeyn Berry best served the University he loved. Through his amusing and insightful prose, 'Rym' Berry left a legacy of Cornell lore for posterity. Berry's first page-long column of "On the Campus and Down the Hill" appeared in the Alumni News on June 4, 1936, and his commentary became a Cornell institution. In his informal yet eloquent style, Berry related the news of the day. "On the Campus and Down the Hill" ran until the May 4, 1939 issue.

The first column entitled "Now, in My Time" appeared in the May 11, 1939 issue of the Alumni News, and ran almost without interruption until Berry's death in March of 1957. In this column, which...
His Time
by Ann Madigan '87

brought more comments than any other feature of the Alumni News, Romeyn Berry stirred the interests of alumni and students alike. He wanted to ensure that the traditions of his time at Cornell would be remembered by the generations of Corneli- ans who followed in his footsteps. In "Now, in My Time," Berry created an amusing mix of past and present which captured the true spirit of Cornell, and left a vast fund of recorded "Cornelliana."

No item was too trivial for his notice. In December 1936, after an early frost, "Beebe Lake was frozen over solid before Thanksgiving. While not a record, that may be put down as a credible performance. It is not yet safe to skate on Beebe, but what difference does that make to a sophomore?" And later that season, after a mid-December thaw, "With the surf beating heavily on the coast of Beebe Lake, and no ice in sight, the Sun urged editorially that the Athletic Association cease to rely on the pond as a place of skating and hockey playing."

Romeyn Berry was fascinated with the personal columns in the Cornell Daily Sun. Each week in "On the Campus and Down the Hill," he would mention a girl's bracelet lost late at night near the men's dormitories, or perhaps a missing dog. "FROM THE SUN: 'Lost: log slide rule in Strand Theater of Ithaca Barber Shop. Call 2898 and ask for Bob Heintz.' The engineers seem to be stepping out!"

Sometimes, Berry simply added a quip or an anecdote to the news of the week. "At a class reunion, the ones who remember you call you by name, while others shout 'Well, well, well!' and slap you vigorously on the back. That's why it becomes such a tragic oc-
currence for a popular alumnus to develop a painfully inflamed excrecence between his shoulder blades on the eve of his class reunion."

Romeyn Berry's maternal grandfather, John Stanton Gould, was Cornell's first professor of agriculture, and Berry's mother lived in Cascadilla Hall when it was one of the only buildings on the new campus. Thus, Berry had contact with Cornell's founders, and related humorous anecdotes about them in "Now, in My Time." In a May 1947 article, Berry described Goldwin Smith's platform manner, as told to him by his mother. "He jerks, darts, pumps, and throws out his sentences with the same hummingbird quickness with which he walks. Then he stops—hesitates—while the students take notes."

"Rym Berry"; self-proclaimed "watchdog"; chronicled events at Cornell for over 30 years.

and throws out his sentences with the same hummingbird quickness with which he walks. Then he stops—hesitates—while the students take notes."

Romeyn Berry's special fetish involved monuments and memorial tablets. He was very concerned that the University would forget those who played a part in its formation. A November 1939 issue gave special credit to Mr. Ostrander, whose elms once lined East Avenue. "Of all the benefactors of Cornell, the one that warms my heart most is Mr. Ostrander." According to Berry, "Ostrander had a farm in Danby with some nice elm saplings in it and, being strangely moved by the sight of a University rearing itself against the skyline on a distant hill and desiring to have a part in it, he dug up a wagon-load of elm saplings, brought them in and laid them at the feet of Andrew D." The elms have since died and were replaced by other trees. In another 1939 column of "Now, in My Time," Berry attributed steel mogul Andrew Carnegie with one of the greatest gifts to the University, a gift that goes largely unnoticed. After the typhoid epidemic of 1903, which killed many Corneli- ans and left many others without sufficient funds to finish school, Carnegie made good the losses of the hopeless students by offering them generous loans. "I like to think that when the once frightened, hungry, poverty-stricken little Scottish boy who became the king of the American steelmakers stepped up to the judgment seat, the one item in his financial accounting that tickled him the most—softened up the Recording Angel the most—was the one that is now forgotten."

In his many articles over the 30 years that 'Rym' Berry wrote for the Alumni News, he commented on the issues of the day as they pertained to Cornell. When he wrote of politics, he mentioned those on the campus who had heatedly joined the debate. When he wrote of major national trends, he mentioned the Corneli- ans who were jumping on the bandwagon. He helped preserve many campus traditions for posterity, and did it in a humorous, eloquent way.

He was a crusader, battling with tireless wit for the preservation of landmarks and memorials. He was a philosopher, gently ridiculing the academic bureaucracy. But most of all, Romeyn Berry was a historian, chronicling the events that took place at Cornell over a period of more than fifty years.
With Cornell's everchanging faces and seasons, how do you begin to capture the experience of a year at Cornell? One new way is through a videotape.

The Cornell Video Yearbook makes its debut this year. It will be a half-hour videotape presenting the people and events that marked the year at Cornell, from the fall colors to graduation. "It moves. It's in color. There's sound," said Cornell Video Yearbook Chairperson Jeffrey Bershad '90. "There is so much you can do with video, and we're taking advantage of the new technology."

The video is not affiliated with the print yearbook, "The Cornellian," but is simply a new yearbook format that keeps pace with today's world of workout tapes and music videos.

To produce this year's video, the four Class Councils, who program class events, are working with Video Yearbook Enterprises, a professional organization that contracts their services to high schools and colleges.

"Though the video yearbook is a Class Council fundraiser, it is primarily a service to the Cornell community," said Bershad.

"More than 30 other schools, including Duke, Brown and Princeton, already produce video yearbooks," said Kris Corda, Advisor to Class Officers. She said Video Yearbook Enterprises will take care of technical processing and editing of the footage after all the filming has been done on and around campus by students on the video staff.

Tim Bushnell '90 has taken the video camera around to get footage. "We have the camera rolling on big events that characterize Cornell," said Bushnell. "Fall Tonic, Green Dragon Day, hockey games—even some of the construction going on all over campus." Bushnell said future filming will include "roving reporter" interviews with people on campus as well as interviews with popular professors and faculty.

"On a nice day we just walk around campus with a camera filming whatever we see," said Bushnell.

"Students often want to see themselves in the video keepsake," said Bershad. "If you and four friends want to be sure you'll all be in the video, you can each order a tape, and we'll take a still photo of you and incorporate it into the tape. It's a personalized touch that's been very popular at other schools, so we're going to try it here."

Bershad plans to keep this year's video yearbook simple; it will be a chronological account of the major events that shaped this year at Cornell. He said that it may be a few years before the videotape will reach its full potential, but that this year's will be an excellent example of the wide range of uses of videotape. "The final product will be a tightly edited record of the seasons, students and special events that make up Cornell, with actual sound or popular music accompanying each scene," said Bershad.

Since filming will continue through senior week and the commencement ceremonies, the videotape will be mailed directly to people's homes in the summer. The 30-minute video will contain a year's worth of moving images and memories to see and hear and remember. It is a new way to appreciate an old institution.

by Cindy Hsu '87
"When I was in grade school, they were talking about how phonovision was going to be the next thing. I guess that every attempt at marketing it has failed miserably because . . . well . . . apparently people don't want to see each other when they call . . . and especially don't want to pay extra for it!"

A bright smile followed this comment as Dr. Daniel McDonald, assistant professor in the Department of Communication, glanced over the yellowed pages of old books and loose sheets of scribbled notes lying on his desk.

This seemingly random array of academic paraphernalia is very important to McDonald's current extensive research from which he hopes to gain a better understanding of the mass media audience and its link with communication technology. He has subdivided his research into three phases: an analysis of the history of the mass media and two survey projects that will help him see how new technology is fitting into the lives of people today. Ultimately he would like to form a model that predicts the success or failure of new communication technology.

Currently compiling a historical overview of changes that occurred with mass media utilization from 1900 to 1985, McDonald is analyzing how audiences have adopted technology like newspapers, radio and television. It is his hunch that for modern technology to be successful, it must be somewhat similar to old technology, but with a unique advantage. For example, with the advent of radio and TV, it was believed that the newspaper would fade out. It has not disappeared because newspapers still have unique advantages over radio and TV. Similarly, he feels that the old technology most similar to the new will fade away. This is best described by the replacement of the four-track tape by the eight-track tape, and then again of the eight-track tape with the smaller and more versatile tape cassette.

Also in his studies, McDonald has been working with the "Circle of Media Motivations." This model puts media technology in a circular continuum of audience's sometimes overlapping motivations for use rather than leaving media mutually exclusive. It is in this "Circle of Media Motivations" that McDonald wants to place new communication media.

The second phase of McDonald's research took place the summer of 1986 in the rural areas of the Adirondacks in New York state and in Ontario, Canada. He visited nine small towns, his research team randomly interviewing about 400 people in each country. His interest was how technology was fitting into their lifestyles. The analysis of this survey has not yet been completed, but he did find some trends. For example, in a small cluster of houses where one house had a satellite dish, there was a very good chance he would find two houses with a dish. McDonald finds this very similar to the trend of TV when it first appeared: "Maybe it's the old idea of keeping up with your neighbor." He also found that if a house had a satellite dish, then it tended not to have a VCR and it tended to be more isolated. He thinks this finding is partially due to the dish filling the people's need to be included in a "national community," since they aren't physically close to anyone.

The final phase of McDonald's research will bring him into larger cities in America. And lastly, after comparing his findings of the rural and urban areas, he will work on his prediction model.

In summing up his research thus far, McDonald said, "I'm always dealing with the contradictory feeling of how much things have changed, and yet how much things have remained the same." With this thought, he opened a book from 1900 and flipped through the pages, pointing out how similar the research was then to analyses done today. "Then," he added, "the author speaks of the 'newspaper habit' . . . like we would speak of a 'TV habit' today." He quoted: "Children in public schools today are often urged to read the newspaper to keep track of the world's events." "And that's supposed to be a bad thing!" pointed out McDonald.

So Dr. Daniel McDonald continues his search for more information to increase his knowledge of the mass media audience and their connection with modern technology. "People are staying the same as the world changes," concluded McDonald. "I guess that's what I'm really studying: How people adapt to a changing world."

by Irmgard Kleemann '87
Remembering a Tradition
Farm and Home Week

by Juan Carlos Iglesias '88

grape growers applied to Cornell for help in conducting experiments in their vineyards. Liberty Hyde Bailey, who was then a professor of horticulture, was put in charge of the project. Under his guidance, the program that would become what is now known as Cooperative Extension was established.

By 1898, enough money was available to expand the program to serve several hundred New York state farms. Farmers were asked to compile reports on their research findings and forward the data to the University. This information was then distributed to other farmers to help them improve their operations.

By 1900, Bailey’s efforts led to the formation of the Agricultural Experimenters League. The members were primarily the same group of farmers and college faculty and staff involved in the extension program. The league decided to hold annual meetings at a time when they could discuss the findings and advances that had been made during each successive year. In 1908, Bailey, who was now the Dean of the College of Agriculture, suggested that the meetings should be made public to better serve the people of the state. Thus was born the first Farm and Home Week, which at the time was called “Farm Week.”

Through five decades, Farm and Home Week was marked by a consistent growth in popularity. While the event was attended by only 800 people in 1908, attendance increased above 4,000 by 1919, and exceeded 17,000 by 1958. The event’s growth was marked not only by the increasing attendance, but also by an increasing number of attractions. In 1908, only 99 events were scheduled for the week-long program, most of which were lectures and departmental exhibits on the technical aspects of farming. By 1958, about 75 additional exhibits and more than 100 different events were scheduled for each day, bringing the grand total to over 800 activities in one week. Not only were there lectures on farming and agriculture, there were various other presentations, demonstrations, practice sessions, and a livestock show.

By the 1950s, Home Economics, which is now known as the College of Human Ecology, was making vital contributions to the offerings of the program. As early as 1910, Martha Van Rensselaer gave lectures during Farm Week and was soon inspired to create a similar event to meet the needs of homemakers of the day. In her ever-pioneering spirit, Van Rensselaer established the first Housekeeper’s Conference, which was held in conjunction with Farm Week.

Cornell’s Farm and Home Week, initiated by some of the prominent names in Cornell history, once had such a national reputation that First Lady-to-Be Eleanor Roosevelt, attended the event in 1937.

The ideas that would become Farm and Home Week originated in 1890s. In 1893, a group of Chautauqua County

Flora Rose and Pres. Edmund Day escort Eleanor Roosevelt, center; photo is c. 1937.
with Farm Week for many years. In 1928, the two events were combined, and Farm and Home Week became a much larger and more important Cornell tradition. The “Home Eccies” became involved in discussions, lectures and presentations in areas such as child psychology, family studies, textiles and apparel design and nutrition.

With the emergence of the program came a greater emphasis on providing more than an academic agenda for participants. Prose and poetry readings became popular, as did folk song recitals, concerts and musicals. The program evolved into a state fair on education by the late 1950s.

While it existed, Farm and Home Week worked in accordance with the College’s obligation as a land grant institution to serve the needs of the people, and with each passing year, sought to do this even more efficiently. Not even a campus housing shortage during World War II could stop the Farm and Home Week program entirely. Although the program did not occur on campus, a train called the “Farm and Home Week Special” took various displays and exhibits throughout the state.

The importance of Farm and Home Week to all people was seldom overlooked. W.I. Myers, Dean of the College of Agriculture wrote in 1958 that, “Farm and Home Week has something of interest for farmers, homemakers, rural residents, suburbanites, truckers, processors, marketing men and many others. All are represented in some phase of this vast open house.”

Farm and Home Week did not begin to decline in popularity until the early 1960s. Finally, the event ceased to exist. College officials attributed the decline in popularity to the development of other, more efficient means of information dispersal. People no longer had to travel many miles to see what was happening in different fields of study. It was easier and less expensive to listen to the radio, turn on the television or read a specialized journal.

The university administration once placed such importance on the event that classes were suspended for students and staff for the week. Today, the only reminders of Farm and Home Week are scattered memories and a few campus events that cannot be recognized for what they once were. The Round-Up Club’s Annual Livestock Show and Ag Day are about the only reminders of a once great tradition. Farm and Home Week has gone the way of the freshman beanie and Stone Hall. We can only wonder what Liberty Hyde Bailey and Martha Van Rensselaer would think.

Right: Publicity for early Farm Week activities. Below: Contestants parade livestock around the circle in front of Roberts Hall during an annual livestock show. (c. 1920)
The coconut palm might be the world's most valuable tree. According to some ethnobotanists, whole cultures, when the climate allowed, have been built upon the utilization of coconuts and their products. Palms provide all of the material for these cultures to use as food, oils, starches, baskets, medicine and building materials.

"Palms in general provide good models for looking at plant utilization in different cultural contexts," said Professor David M. Bates '59, describing a discipline of botanical study called "ethnobotany." Bates is a member of a unit called the Liberty Hyde Bailey Hortorium at the New York State College of Agriculture and Life Sciences.

The word ethnobotany was first used by the botanist John W. Harshberger in 1895 and was derived from the Greek words "ethos", which refers to race or culture, and "botanikos", which means herbs or botany.

One of the major focuses of ethnobotany in the last 20 years has been exploring the relationships of plants to language patterns of people. Researchers are looking at plants and folklore for clues to how cultures are organized, he said.

"A book titled, Principles of Tzeltal Plant Classification [Berlin, Breedlove, Raven, Academic Press, 1974] touched off a lot of interest in this area," Bates said. "The authors studied the names applied to plants by people who speak a Mayan language in order to analyze the relationships between language, classification and communication of information within that society."

As a result of this study, theories were proposed to explain the ways people organize and communicate knowledge about their biological environment. Other peoples and languages are now being studied to see if folk classifications have universal structures, said Bates.

**Dr. David Bates**, a member of the Liberty Hyde Bailey Hortorium, teaches a course that deals with ethnobotany.

If a plant is of great significance to a culture, it tends to be overcategorized. For instance, the classification of maize (corn) has become very complex because it is important to so many peoples' lives, he said.

"I never really thought about corn in the ethnobotanical sense; I never even heard of the word ethnobotany," said Mary Hoover '86, a Mohawk Indian.

One of the primary food plants of the Mohawks and many other American Indian groups is corn. Even today corn plays a large part in the diet, and the Green Corn Dance is one of the main thanksgiving ceremonies of the Iroquois, Hoover said.

"But at home, we eat a lot of corn products such as corn soup, grits, fried corn meal, corn meal bread, corn meal mush, corn pudding, corn-on-the-cob, creamed corn and corn dumplings," Hoover said.

Melissa Beisheim '88, a student in Plants and Civilization, a course Bates teaches every spring semester said, "I always figured a plant is just a plant." Bates' course outlines the foundations, human and plant adaptations, utilization of plant resources, physiologically active plant substances and the future prospects for plants and humans. "I am beginning to realize just how important certain plants are to different cultures and how many different ways plants are used," said Beisheim. "Medicine plants are particularly interesting."

One example of an American Indian plant that is sold over the counter in drug stores is slippery elm. According to Virgil Vogel (American Indian Medicine, University of Oklahoma Press, 1970), slippery elm was, and still is
used to combat physical ailments such as bladder inflammation, dysentery, diarrhea and fevers.

Since plants have produced such an enormous array of compounds, researchers find it easier to survey the compounds by utilizing the experience of people who have already learned how to use them, said Bates. A problem for ethnobotanists is obtaining information from the more remote areas of the world today, such as in the Amazon Basin. Over the centuries, each of the indigenous groups of people have developed very sophisticated medicinal systems, but when Western culture is introduced, people tend to abandon traditional systems, with much of their folk knowledge lost before anyone can record it, Bates said.

"There is a danger that the knowledge of these novel compounds will escape us," said Bates. "As many groups are acculturated they tend to leave behind certain aspects of their culture. But if things weren't recorded in writing, it is very easy, even in the span of one generation, to lose that tradition."

Although it is difficult to generalize about contemporary Western societies in terms of their ethnobotany, plants are the dominant elements of peoples who live in close association with their environment, he said. Plants are the resources people have available to use and tend to govern the cultural behavior of societies that lack the technology to alter their environment, Bates said. "However, it is hard to argue that plants are directly shaping the behavior of someone on Wall Street," said Bates, adding with a smile, "Unless they are buying cocaine."

Yet, ethnobotanical information can be found in a place like New York City. The New York Botanical Garden has started a program with the local schools of lower Manhattan, where Chinese and Hispanic people dominate. School projects are being developed around the foods that ethnic groups eat. Children visit local markets and look at food plants. In the classroom, they might draw an eggplant and other vegetables they like to eat and bring the pictures home. The intent of the program is to use food plants that are familiar to the ethnic groups, to interest parents in what is happening culturally at school and in their own family heritage. The ultimate goal is for the parents to become involved with the local schools. The program has achieved a favorable degree of success, said Bates.

"I like to go to the street markets, and I find them to be the most fascinating parts of a city. I can get a feeling or sense of individual cultures. One of my

**These products** are made from plant materials. The coconut was sent to Dr. Bates by mail, from his daughter who now lives in Hawaii.

by Stephen C. Fadden '88
Imagine it is a warm spring day. You are just getting ready to stretch out in the hammock when you realize you promised to mow the lawn last week. Your lazy day in the sun is shot and all you have to look forward to is trudging behind the lawn mower for an hour and a half. Maybe you should look into the feasibility of Astroturf. But no, it wouldn't be the same without real, green grass. Unfortunately, there is no truly easy way to mow the lawn.

However, current research on chemicals called plant growth regulators (PGRs) may make mowing lawns every week obsolete. Dr. Norman Hummel, assistant professor of turfgrass science in the College of Agriculture and Life Sciences, is studying PGRs. He said they “eliminate or reduce the need to mow for up to eight weeks, a feature that is very attractive to home owners.”

PGRs work by reducing the growth of grass shoots and keeping them from forming seedheads without seriously harming the roots. They are made of low to non-toxic materials, and are quickly metabolized or broken down in soil. Costs for plant growth regulators range from $5 for enough to cover an acre to $120 per acre because they differ in effectiveness, concentration, and safeness for the plants.

In the past five years, Hummel said, commercial uses for PGRs have increased substantially. These commercial uses can now be found nationwide. Roadside mowing, which can be difficult and dangerous if the slopes are steep, is greatly reduced by introducing PGRs. Cemeteries also can cut down on the labor-intensive job of trimming around headstones by using PGRs. The large costs of mowing around trees and buildings with much landscaping can be reduced with PGR use. Plant growth regulators can also be used on golf course fairways, and this use has been studied at Cornell.

Dr. A. Martin Petrovic, associate professor of turfgrass science for the ag college, researched the influence of PGRs on annual bluegrass. Annual bluegrass is considered a weed because it produces so many seedheads that it often takes over golf course fairways. By introducing a specific plant growth regulator to reduce the seedhead production of annual bluegrass, he hypothesized, more desirable grasses would have a competitive advantage. The problem with using PGRs on fairways is that they often injure and cause discoloration to the grass and golf course superintendents often find this undesirable.

By waiting until the first seedheads were present and by using a low dosage of a PGR called mefluide, Petrovic found reduction in seedhead production occurred and the discoloration usually caused by mefluide was kept to acceptable levels. “This could easily translate into a net savings by reducing mowing costs on fairways,” Petrovic said. In the course of his research he also accidentally found that wetting agents, materials that improve water’s ability to wet certain soils, act as plant growth regulators for annual bluegrass.

Don’t get your hopes up too high for summers without mowing grass though, because Hummel said plant growth regulators have a number of problems keeping them from being ready for use on home lawns. “The most offending and common characteristic of PGRs is that they tend to discolor the turf within the first two weeks after application,” Hummel said. Petrovic’s discovery will not help for home lawns either, because he was looking for a PGR specifically for annual bluegrass.

Most home lawns are composed of many types of grasses and weeds that are affected in different ways by plant growth regulators. Because of this, even if PGRs did not cause discoloration of grass, they may not work on weeds present in the lawn, and mowing would be necessary anyway.

Although much work still needs to be done before PGRs are ready for home use, Hummel said much progress has been made since the first PGRs were put on the market in the late 1950s. Petrovic said, “As the need to reduce mowing increases, I think people will be willing to take the sacrifice of lower quality grass.” Some research now shows that low rates of a combination of two PGRs, flurprimidol and amido-chlor, can effectively reduce growth but not discolor the lawn.

Besides reducing the rate of the plant growth regulators used to lessen their adverse effects, Hummel has found that adding nitrogen fertilizer can lower the amount of damage caused by PGRs. Adding fertilizer, however, will also reduce the effectiveness of the PGRs.

The whole concept of using plant growth regulators on home lawns is still in its infancy, Hummel said. One day spring may merely mean it is time to quickly spread out the chemical lawn mowers, and resting in the shade with lemonade will abound. Until then, we have to hang up the hammock and complete the weekly duty trudging behind a conventional lawn mower.

by Frances J. Morris '87
Getting to meet famous people, such as Hill Street Blues star Ed Marinaro '72, isn't on most people's agenda—but it is for 22-year-old Diane O'Shaughnessy, a 1986 College of Agriculture and Life Sciences graduate. As assistant director for physical education and athletic development at Cornell University, Diane meets many interesting Cornell alumni.

"I get to meet many important people, especially the Cornell alumni. It's fun to meet these people and talk to them. You begin to realize that these people, the ones that everyone is intimidated by, are just regular people. I even got to meet Hill Street Blues star Ed Marinaro. I've been watching that show for around seven years. So it was really exciting to meet him.

"Ed was the Cornell quarterback for the 1971 championship games. And I got to have lunch and dinner with him at the football banquets. An interesting thing is that he's exactly like his character on television."

Meeting Cornell alumni is a major aspect of Diane's job. Diane started working for Cornell in the summer of 1986. She is employed by the Office of University Development and is on assignment for the Capital Campaign for Athletics and Physical Education. Diane's main responsibility, the New York state campaign, requires her to travel around the state to contact both Cornell alumni and non-alumni. By doing this, Diane can determine whether or not a person wants to help out with the campaign. Diane said, "So many people think we ask alumni or non-alumni just for money, but it's not true. We also ask people whether or not they would be interested in helping out with the campaign. In this way, the wealthy are not the only ones contributing."

Ken DeDominicis, the campaign manager for physical education and athletic development, said Diane joined the athletics campaign at the midpoint of the fundraising schedule. DeDominicis added, "Diane has a major role in enhancing alumni support through her network of recent graduates and current students, such as Red Key student athletes. The discipline of organizing and managing a national organization, such as the athletics campaign, is excellent experience for future career opportunities in management."

And that is exactly what Diane plans on doing. Besides working in her position, Diane is taking part-time business school classes. Diane plans on attending business school in the future, but not for a few years. She said she thinks it's important for undergraduates to be able to experience real life before deciding to go to graduate school. This will "make you more mature plus you can be more confident of your choices. By then you should have a definite goal in mind and will work hard to achieve it."

Even though she had a chance to leave Ithaca after graduating, Diane decided to stay because she said she likes it here. Now she plays an entirely different role—she is no longer a student, she is now a professional and she has a different outlook on life at Cornell. Rather than looking at Cornell as a university, Diane now views Cornell as an organization.

Diane finds her school experience helpful to her job—especially when she communicates with Cornell alumni. "I feel fortunate to have been a student here, but now I know what real life is. Before, the alumni and even the university officials were just figureheads. Now I know them as real people since I deal with them on a regular basis."

One would think that Diane has enough to do with her job and business school classes. Not Diane. She is also a housemother at her old sorority Alpha Gamma Delta.

All of her responsibilities have made Diane O'Shaughnessy into what she is today—a hard working, responsible, ambitious woman. From Cornell student to Cornell employee, this go-getter has words of advice for all job-seekers. "Be patient. Be ambitious. And work for whatever you want. It's definitely worth it." That's not too bad from someone who's experiencing real life right at Cornell.

by VIVIAN Y. LEE '87
CALLS TO ORDER

by David R Fine '87

On January 6, 1987, New York state's Tompkins County Board of Representatives held its first meeting of the new year. This was its organizational meeting in which the board would choose its chairman for the upcoming year. After some discussion, the board voted to re-elect its current chairman, Mary Call '54.

A man sat in the back of the public seating section of the chamber watching as Call picked up the gavel she has held for a year already and thanked her fellow legislators. He is her husband and he went to the meeting to offer moral support. He is also David Call '54, PhD '60, Dean of the College of Agriculture and Life Sciences at Cornell.

Interestingly, many people at Cornell and in Tompkins County have not made the connection between the chair of the county board and the dean of the College.

Neither David nor Mary Call is originally from the Tompkins County area. Mary Call grew up in Pleasantville, N.Y. (Reader's Digest was started in the garage of a home across the street from where she was raised). In 1950, she came to Ithaca to study general agriculture at Cornell's agriculture college. David Call came to Cornell in 1950 from Batavia, N.Y. He enrolled in the College to study agricultural economics.

"We actually met on the first day of classes," said Mary Call. "We didn't go together until much later, though." They were married after they were graduated from Cornell in 1954.

David Call received his PhD from Cornell in 1960 and got his first job at Michigan State University. He and Mary Call stayed in East Lansing for nearly two and a half years and then returned to Cornell where David Call accepted the H.E. Babcock endowed chair in the School of Nutrition. He held that post for several years, until he became director of Cornell Cooperative Extension. And, nearly ten years ago, David Call became Dean of the College of Agriculture and Life Sciences.

As one Call made his professional name at Cornell, another was making her professional name in the Tompkins County community. Before running for public office, Mary Call was involved in a great many things, not the least of which was raising the Calls' four children, who range in age from 22 to 30 years. She also worked extensively in volunteer human service projects in the county. Her husband proudly listed some of the items on her résumé.

"I think it's very interesting the way she developed a professional life completely on her own. If you trace her career, she started out as a girl scout leader and then was the first female president of the United Way board. Then she was president of the Human Services Coalition and then ran for the county board and won. She did all that on her own," said the dean.

Mary Call's election to the Tompkins County Board of Representatives came in 1981 after the Republican party asked her to run. She became chairman of the board last year.

Both agree their professional lives are very separate. When county chair Mary Call needs to work with a Cornell official, she will call Vice President William Herbster rather than her husband. When she needs advice, the dean has no more input than anyone else.

"My wife is a great consensus seeker. She seeks input from many people. I think she looks at my input the way she would from fellow board members or other citizens in the community," said Dean Call.

Do the Calls think it is to their advantage to hold two of the most prominent roles in the county?

"It could be to her disadvantage, I suppose. If people didn't like the way I was running the College, they might take it out on her when they vote," said the dean.

"There's been a lot of speculation about whether I have an inside track at Cornell," said the county chair. "Since the people I work with at Cornell are different, I don't."

And for whom did Dean David Call vote in the last Board of Representatives election? Would things be difficult at home if he chose another candidate?

"She wouldn't know. I voted for her, though. I'm one of her strongest supporters," he said.
Boyce Thompson Lectures

The Boyce Thompson Institute for Plant Research at Cornell is establishing a distinguished lecture series to examine a wide range of research advances in biotechnology and other fields in the life sciences.

Two lectures will be presented each month throughout the year, except during July and August. The roster of speakers includes: Leroy E. Hood, California Institute of Technology; Peter H. Quail, University of Wisconsin at Madison; George H. Lorimer, E.I. du Pont de Nemours & Co.; Thomas Kaiser, Rockefeller University; Thomas E. Wagner, Ohio University at Athens; Wendell L. Roelofs, New York State Agricultural Experiment Station at Geneva; George P. Georgiou, University of California at Riverside and David Botstein, Massachusetts Institute of Technology. For more information contact Director Ralph Hardy’s office at (607) 257-2030.

Merit Award Given to Prof. Harman

Dr. Gary E. Harman, a professor of microbiology at Cornell’s New York State Agriculture Experiment Station was given the Award of Merit from the American Phytopathological Society Northeastern Division. Harman was recognized for developing “an internationally recognized unique research program that combines the disciplines of plant pathology and seed science.”

Harman has been working for the last nine years with a group of special fungi that have the ability to parasitize other fungi and to protect plants from a wide range of damaging fungi.

Eastern Frosted Foods Association presented scholarship awards to seven students of the agriculture college at a recent annual dinner meeting in Teaneck, New Jersey.

Joseph Klemaszewski of Almond, New York, a graduate student in food chemistry, won $1,000. Six undergraduates in food science won $750 each: Wendy Anderson, Pound Ridge, New York; Jody Dennis, Feeding Hills, Massachusetts; Tia Gutenmann, Brooktondale, New York; Anne-Lise Puoti, Bronx, New York; Wendy Schulman, New City, New York and Maria Sileno, Wappingers Falls, New York.

The 1986 Award for Outstanding Educator from the Council of Educators in Landscape Architecture was bestowed upon Daniel W. Krall MLA ’84, an assistant professor of landscape architecture at Cornell University. The national organization commended Krall for making a “significant contribution to the discipline” and for his “outstanding academic achievement.” Krall has been a member of the Cornell faculty since 1984.

Baker Bequest Provides $15 Million for Professorships, Research

Cornell University has received an estimated $15 million bequest, the largest in its history and one of the largest ever among the nation’s colleges and universities. E. Vreeland Baker ’23 of Houston, left the bulk of his estate to the University. Baker was a longtime contributor to the University and was honored in 1982 as one of its foremost benefactors. He was named one of the “Builders of Cornell.”

Part of the bequest will be used to establish the E.V. Baker Professorship of Agriculture, a post awarded effective Jan. 1 to Robert F. Lucey, former chairman of Cornell’s agriculture department. Other projects to be established in the agriculture college will be the E.V. Baker Research Fund, the E.V. Baker Student Aid Fund, the E.V. Baker Cornell Tradition Fund, and the E.V. Baker Dean’s Fund.

Outstanding Alumni Being Nominated

Nominations are being taken for the Outstanding Alumni Award for the College of Agriculture and Life Sciences. The award recognizes the alumni who have met at least one of three criteria: has been actively involved with, worked for and demonstrated leadership abilities in the agriculture college; has achieved recognized success in their business, profession or other vocational or has achieved recognized success in avocational activities other than Cornell.

One-page nomination forms can be obtained from the college Alumni Office, (607) 255-7651, and must be postmarked by May 13, 1987. Jane B. Longley-Cook chairs the Awards Committee and is assisted by Glenn E. Edick ’40, Bernard W. Potter ’43, Jay D. Hardenburg ’79 and H. Bryan Neel III ’62.

COUNTRYMAN CAPSULES

Cornell University urban designer Roger T. Trancik recently published a new book, Finding Lost Space: Theories of Urban Design. The book takes a critical look at modern American cities packed with high-rise buildings surrounded by lost or inadequately utilized space. Trancik urges architects, urban planners, landscape specialists and government and public officials to take the initiative to reclaim lost space to cope with the growth of American cities for the next 30 years.

Since 1978, enrollment levels have been dropping annually in the nation's land grant colleges, and from 1981 to 1985, enrollment has decreased by 20 percent in agricultural schools across the country. One exception to this disturbing trend is Cornell's College of Agriculture and Life Sciences. Richard A. Church, coordinator of admissions, said the College has seen "slight increases in enrollment, but a 30 percent increase in applications from 1978 to the present because of diverse course offerings, aggressive recruiting efforts and strong reputation."

These are some of the reasons why the College is in a potential leadership position with the National Agriculture and Natural Resources Curriculum project (NANRC). Established in 1981, the NANRC's overall goal has been to improve the quality and perception of land grant education.

Having noted the College's enrollment trends, the NANRC has called upon the College's faculty and alumni to help it reach its primary objectives: to identify areas for improvement in the agriculture curriculum, and to produce long range plans for implementing its findings.

One of those chosen for the project, serving as a consultant on the NANRC Task Force and Industry Advisory Committee, is Joseph P. King '36. Chosen because of his background in agribusiness, King said Cornell has a leadership position, citing its outstanding faculty, facilities and departmental diversity that attracts students and which would be considered in the project's goal of improving other agricultural colleges. "Other colleges have concentrated too much on production agriculture," King said. "They haven't brought in other disciplines which help students apply and appreciate the dimensions of agriculture and all it affects."

King said a diversified curriculum is necessary to attract prospective students. During the 1950s, the number of students qualifying for and using the "G.I. Bill" was dwindling. Action had to be taken if the College was to keep enrollment levels from falling off. In 1954, King was called upon to discuss plans to improve the College's curricula and to increase awareness of its offerings among prospective students. King aided in the development of improved and diversified curricula, resulting in generally increasing enrollment levels ever since.

With the hopes of achieving similar successful results, the NANRC project has identified 11 areas for curriculum improvement. Each area will assume a more significant role in land grant education. Among these 11 areas slated for improvement is applied ethics. Prof. Richard A. Baer, Jr. of the Department of Natural Resources, who was introduced to the project by King, believes the role of ethics to be a challenging and much needed aspect of the project.

Baer said, "All students would benefit from at least one course in applied ethics, regardless of their major. There is no lack of interest in the subject. The problem is how to do justice to ethics in a secular institution that is part of a pluralistic society."

The NANRC program realizes and echoes these concerns, which may be another reason it has called on the services of the College and its alumni. Improvements are still being made in the College's curriculum and producing positive results. King said, with such background and experience, "Cornell can serve as a useful model for the NANRC project."

The College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.
Time Traveling
ABOUT THE ISSUE
Welcome to the Time Warp. Just read on and you will travel back in time with us. We will show you what Cornell University was like many years ago—and how it has changed. From theater, to campus protests, to weddings, to agricultural research—Cornell has experienced it all. It has been said that one can never go back in time, but we will demonstrate how the past can be used to give us a better tomorrow.

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The Cornell Countryman (ISSN 0010-8782) is published six times a year from October through May (combined issues for January and February, and April and May) by the New York State College of Agriculture and Life Sciences, Box 36, Roberts Hall, Cornell University, Ithaca, N.Y. 14853. Second class postage paid at Ithaca, New York 14853. Printed by Midstate Litho, Inc. of Endicott. Subscription Rates: $5.00 a year; $9.00 for two years. Postmaster: Send change of address to Cornell Countryman Box 36, Roberts Hall Cornell University, Ithaca, N.Y. 14853. Editorial content gathered and written by majors in the Department of Communication. Honorary editor: Edward L. Bernays '12. Faculty advisors: Jane E. Hardy '53, Linda Myers '64.
There once was a country mouse who had never been to see the city. Many of us who have heard this familiar tale before may find it hard to relate to the country mouse's story, considering our easy access to cars, subways and suburbia. But there was a time when country folk and city folk rarely interacted. In the 1920s, people living in rural areas had little or no exposure to many forms of entertainment prevalent in the cities, such as theatre and drama. Professor Drummond's "Little Country Theatre" was created to bridge that gap.

In 1919, Professor Alexander M. Drummond of the Department of Public Speaking at Cornell—now the Department of Theatre Arts—decided to do something about the lack of theatre out in the countryside. He had strong feelings for the value of rural community life, and he had strong feelings for the theatre. Combining the two, Drummond wanted to improve the quality of the plays to which rural people were accustomed. These were often plays and skits that the rural people put on only as fundraisers for church or school. Drummond had a project in mind that would expand appreciation of well-produced drama into the countryside.

Drummond managed to obtain a space in an old wooden exhibit building at the State Fair in Syracuse, and in September 1919 a troupe of Cornell Dramatic Club members created a small theatre out of that space.

Professor Emeritus Walter H. Stainton '19 was one of Drummond's assistants back in the early days of the Little Country Theatre. He recalled, "Back in the twenties, theatre in the country was very limited. Plays were produced, but some of them were dreadful."

"The people out in the countryside came to Cornell's ag college for advice about their crops and their critters, but they didn't come for cultural activities."

The Little Country Theatre was an attempt to acquaint people with good dramatic literature," said Stainton.

The first repertory included plays by W.B. Yeats, Lady Gregory and Zona Gale, and it was a huge success. An audience of 6000 fairgoers crowded into the small wooden building. Each year the experiment was repeated with increasing success, until in 1922, the last year of the demonstration production, the Dramatic Club troupe played to about 20,000 people in 48 performances. The barn theatre showed that good drama could be appreciated in rural areas.

In 1924 the Department of Rural Sociology joined in with Drummond's experiment. They sought to enrich community life and develop community leadership through dramatics. The project soon expanded into a statewide program training local play directors. Later, competitions were held in tent theatres statewide at county fairs; these were patterned after Drummond's first State Fair demonstration.

Mary Eva Duthie, a leader in the rural sociology drama program, later wrote: "Everyone who participated in those early days will have his own memories—mine are of enthusiasm and good spirit."

That spirit is still here today. In the basement of Lincoln Hall is the Drummond Theatre, named for the professor whose name, for many, is synonymous with theatre at Cornell. Although the Little Country Theatre and the Drummond Theatre are not directly linked, they share a common spirit. The small Drummond Theatre carries on the zest for experimentation that first inspired Drummond to start the Little Country Theatre so many years ago.

DRAMATIC EXPERIMENTS

by Cindy Hsu '87

"The Drummond Theatre serves as a safe haven for new works, student plays and avant-garde or untraditional adaptations," said Ellen Kennedy, Managing Director of Theatre Cornell.

Kennedy said that the recent production of Chekhov's one-act play "The Wedding" is a good example of the kind of production Drummond Theatre would show. The abstract and farcical interpretations of the play were experimental and somewhat "risky"—which is what the Drummond Theatre is all about.

The Dramatic Club, the troupe Drummond once advised and led to the State Fair, dissolved in 1969, but has rejuvenated in the last couple years under the guidance of Prof. David Feldshuh, Artistic Director of Theatre Cornell. Fittingly, they use Drummond Theatre for their productions.

"The Drummond Theatre doesn't send plays out to the State Fair anymore," said Kennedy. "But the spirit is still the same. Try new things, explore new directions and extend theatre to new places—that's what Professor Drummond wanted to do." And he did.
Many traditional events have become associated with Barton Hall since its approval in 1914. However, the building possesses a much richer history than simply being the site of University registration, basketball games, final exams and other events. Over the years it has become a Jack-of-all-trades building and the site of many functions and attractions.

Even among the building’s permanent tenants, little-known facts can be found. Barton Hall was originally known as the University Drill Hall but was renamed in 1940 in honor of Colonel Frank A. Barton, M.E. ’91. Its main purpose was to accommodate the Reserve Officers Training Corps (ROTC) units; however, Barton was also home to many airplanes in the early 1900s.

According to current ROTC Tri-Service Coordinator, [Army] Lt. Colonel “Bucky” Buchwald ’66, Barton was home to the U.S. Army School of Military Aeronautics from 1917 to 1918. As part of the ROTC program, the school provided instruction with real airplanes which were brought into the building. The instruction was an odd use for the building, Buchwald said, because the building was not built for that specific purpose despite its hangar-like appearance. “It was built so large [back then] because military training was required of all male students for the first two years of school,” he said.

Eventually mandatory military training was eliminated, but other uses for Barton Hall were developed over the years. Illustrating this point, Buchwald cited the Howard F. Wortham Memorial Museum which is housed in the building’s north tower. Of particular note is the Flood Newman display of his World War I uniform and memorabilia.

Buchwald also mentioned that many non-military events have transpired in Barton Hall. During the Big Band Era of the 1930s and ’40s, bands, including Jimmy Dorsey’s, would perform in Barton. Sometimes two bands would play at once by positioning themselves at opposite ends of the 1.87 acre floor and then taking turns performing in a battle-of-the-bands dance.

Beneath that same dance floor now resides another official tenant of Barton Hall, the Department of Public Safety; and it, too, is the source of more little-known facts about the building. Located in what was once the ROTC stables, the department’s assistant director for administration, Lt. Randy Hausner, mentions that his office alone has served multiple uses over the years and continues to do so. Explaining that there is no juvenile detention facility, Hausner said, “Because this office is the most secure it gets used as the juvenile detention center. When I come in some mornings to find my office in disarray, I know someone has detained...”
could talk

by Michael K. Durand '87

a juvenile the night before.”

But for the same reasons that Hausner’s office is used as a holding place, during the late sixties and early seventies it was designated as the university president’s “safe room.” Hausner said, “In times of emergency the president will come to this office and from here perform his official duties.”

Despite its many official uses Barton has also been the scene of several unconventional events. Recalling the early 1970s, University Archivist Gould Colman ’51 PhD ’61, cited an incident at Barton involving activist priest Daniel Berrigan.

Berrigan, who was being sought by the FBI for his actions of protest against the Vietnam war, was invited to participate in a gathering at Barton by his Cornell supporters. Accepting the invitation he came to Ithaca, followed by federal agents set on apprehending him. During the gathering at Barton the agents attempted to capture Berrigan, however, they were kept from doing so by those who invited him. In the chaos that followed, Berrigan eluded the FBI by hiding inside one of several large papier mâché figures that adorned the stage. He managed to leave Barton safely, Colman said.

Sporting a wait-and-see attitude about what effect the new athletic facilities and registration policies will have on Barton’s future, Colman noted that University registration at Barton was a product of change in the 1940s. In the past, Morrill Hall served as the University’s administration building and registration site. When Day Hall was completed in 1945, however, it assumed the role of administration headquarters. It was too small to accommodate registration proceedings for an expanding student body; therefore Barton Hall got the job.

In the next few years this job and others will soon be taken from Barton Hall, but their removal will hardly decrease Cornellians’ use of the building. According to Thomas Douple, Assistant Director of Athletics Operations and Facilities, Barton’s usage will probably increase as a result of the slated changes. “The new facilities will free up more time [in Barton] for student and intramural use,” he said because all varsity sports, except for men’s and women’s track, will move to the new facilities. Douple feels this will be a positive action for utilizing Barton, citing intramural program scheduling as a good example. “There are 11,000 individuals involved in the program,” he said. “Cornell’s student body is roughly 17,000. With more free time more things can be done.”

It is likely that his sentiments will hold true for Barton’s future with the Cornell Community. For Barton Hall, with all its history, let’s hope the best is yet to come.
"FM93 is the place to be," the disc jockey announces on the radio. This month FM93, or WVBR-FM as it is still known to many, begins its thirtieth year of broadcasting to the Ithaca community. How has this radio station been able to survive for a time spanning four decades? Many of those currently at the radio station can give you many reasons.

Perhaps it lies in the station's history. In 1957, the FCC granted the Cornell Radio Guild the license to operate an FM commercial station, and soon a station was broadcasting out of Cornell's Willard Straight Hall. The station played a mix of classical and popular music. By 1967, WVBR-FM was playing rock music. In 1973, the radio station moved to its current residence in Ithaca's Collegetown. In 1983, WVBR became "FM93" and began to play a complete "top 40" format.

WVBR is unique in the way that it is run. Although it is owned by the Cornell Radio Guild, the University has nothing to do with the station. The station is owned and operated by the students, with students electing officers each year to keep the station running. WVBR-FM depends on advertising revenue to keep it going, and this makes it one of the few commercial college radio stations in the nation.

Each semester, the station holds open houses to attract new staff members. Interested students then go through a semester-long training program, and when they are ready, they go on-the-air, with disc jockeys starting off on the overnight shift, from 2:00 to 6:00 am. There are currently over 100 people on the station staff.

Kenn Marash '72 served as assistant news director while at Cornell and is now chairman of the station's board of directors, which acts as an advisory group. According to Marash, WVBR has been able to survive for many reasons. "It's sort of like a marriage. For better or worse, it keeps rolling on. It's had its up times, it's had its down times, but it keeps on going because it keeps on changing."

John B. Hill agreed. Hill has been with WVBR since the late 1960s while a student at Ithaca College, and currently serves as the station's chief engineer. Hill said for the first 20 years of its existence, WVBR survived because it had no real competition. In the past ten years, several radio stations playing the same music have come on to the market, providing more competition. Hill said the radio station survived because of a great deal of planning and thinking.

But Marash and Hill agreed that responding to change is not the only thing that has kept WVBR in business.

Both cited the enthusiasm of staff members as a factor. "There's always new blood coming in, and lots of new ideas, and sometimes they're good and sometimes they're not. But there's always someone to come in with another new idea, and the circle keeps on going around," said Marash.

The radio station is what attracted many staff members to Cornell in the first place. Liz Ledkovsky '90, who is a reporter at FM93, said she chose Cornell because she wanted both a well-rounded education and on-the-job experience as well. "Working here is as real world as you can get," said Ledkovsky. "The time I put in here is worth it because of the experience it has given me."

John Jones '88 agreed. "When I chose a college, I chose it on whether it had a radio station or not," said Jones. "This station has taught me a lot—it's a professional radio station, professionally run and it's better experience than I could have gotten at any other radio station in the country."

Optimism aside, Hill does see some obstacles for the radio station in the future. He said with Cornell's increased tuition, students are not willing to spend their time in extracurricular activities. "People were willing to put in 50 hours a week here 15 years ago, even when the male population was trying not to get drafted," said Hill. Now, said Hill, students are not as willing to risk their time and college tuition as readily.

But Hill is not worried. He said fresh blood will continue to come in. "More and more junior colleges and high schools are setting up radio stations, and when these students come to Ithaca and see this radio station, they're very enthusiastic."

And will WVBR-FM93 continue to prosper in the future, providing valuable training experience to those interested in a career in the media? "We always say we're good training," said Hill, "and you can learn about radio. A lot of places say that, but the fact that we place more people in more jobs than any other station this size in the country says we must be doing something right."
Protests: past and present tense

Cornell University prides itself on being one of the most liberal of the Ivy league institutions. Some argue that it is a haven for free speech, evident in the student body's ability to readily voice its opinion. Others contend that it fosters cultural, political and social diversity.

These proponents of free speech often speak in the present tense when they make their propositions and allegations. They sit back and point to all the wonderful things that are currently happening on our campus:
- students protest against Cornell's investments in South Africa
- minorities, unhappy with University policy, march through campus
- lesbian, gay and bisexual rights groups speak out in front of Willard Straight Hall
- students sit in to protest CIA recruitment on campus
- faculty, staff and students petition Cornell's research contributions to the Strategic Defense Initiative

Despite all the student involvement, the political situation at Cornell is not as fervent as it would seem, according to Gould Colman '51 PhD '61, University Archivist. "Things are so tame now," he said, reflecting on the University's past. "I'm amazed at how little controversy exists about free speech on this campus. We're all hunkered down nowadays."

Colman remembered a time when he was more politically active on this campus; a time when political activism meant taking action much more so than it does now. He remembered the late 60s. Cornell students and faculty were concerned with a broad spectrum of issues at the time—the most prominent issues were racial tension and the Vietnam war. It was a combination of the feelings caused by these crises that led to the widespread student involvement of the time.

"Twenty years ago, the University was out of phase with society," Colman said. When James A. Perkins came to Cornell as president in 1963, he made a commitment to recruit minority students. A part of the problem with that, Colman pointed out, was that "the University was not prepared to handle that task. There was nothing in the experience of the people here to help us understand where the black students were coming from." As a result, misunderstandings between the administration and groups of concerned people, both black and white, faculty and students, erupted. These misunderstandings led to the takeover of Willard Straight Hall by a group of angry and disillusioned black students in April of 1969. The same misunderstandings fueled the issue during rallies in Barton Hall attended by thousands of concerned people. Rousing, often caustic, speeches criticized University actions as showing a lack of sympathy for civil rights.

At the same time, other students responded to the pressures imposed by having a government at war. Students for a Democratic Society staged several picket lines and rallies on campus. In May of 1969, a group of SDS protestors entered Barton Hall and seized a Navy ROTC practice deck gun to make a statement about the connection between ROTC training and the University's involvement in the war. By late 1970, draft card burnings and marches from campus to the Ithaca Draft Board office on Aurora Street were common. In 1972, a group of students protested what they referred to as "Cornell's complicity with the war machine" by occupying Carpenter Hall for five days.

That spirit of protesting and activism did not last long, however. "After the heat was off Vietnam, the protests died down," said Colman. He feels that the atmosphere has grown a lot more conservative since then. Only recently has Colman noticed a re-emergence of the kind of political concern that the campus saw in the 60s.

John Marcham '50, editor of the Cornell Alumni News, who covered the Straight takeover and many other protest stories of the same era, agreed with Colman's point of view. "The issues are no less important today," said Marcham. "But I believe there's a lot less intensity to the feelings than there used to be. Students now are a lot more career oriented, and the administration has learned how to deal with the demonstrations more effectively. Public Safety is better trained, and there are more reasonable administrators."

On the other hand, Marcham said it can sometimes be hard to compare the protests of the 60s with those we have now because of a different political climate. The 60s and the early 70s were a turbulent time. He said, "We need to ask ourselves, 'how much of what went on was rational political action, and how much was just frenzy?'"

As to whether the recent rise in activism might indicate a trend, no one is willing to say. One point that both Colman and Marcham did make was that there always has been and probably always will be political activism of one form or another at Cornell. "There's a greater opportunity to make yourself heard on a college campus," said Marcham. Whether a cause attracts widespread support is another matter.

by JuanCarlos Iglesias '88

Unlike the radical protests of the 60s, today's activism is more benign.
The mention of home economics conjures up nightmares of my seventh grade cooking class. Troy Minch threw a green comb into our chocolate sauce and it came out of the sauce white. None of us ate the eclairs made that day despite much coaxing from our teacher. We did not want to spoil her day by telling her about the comb, so we watched as she ate three of those eclairs. She said they were delicious.

Once done with that class, I did not take another home ec course. I did not consider home economics something worth pursuing, mostly because of my experiences with eclairs. I did not expect to encounter home economics once I reached college.

Much to my surprise, however, I discovered that the College of Agriculture and Life Sciences once had a department of home economics, and even a school of home economics. The school of home economics grew to be the College of Home Economics. In 1969, the College of Home Economics changed its name to the College of Human Ecology. This change in name, though it caused controversy, “reflected a gradual evolution in the curriculum and goals of the college,” said Carolyn Cook ’72, director of alumni affairs.

The College of Human Ecology stems from a bulletin for farmers’ wives, called “Saving Steps,” written by Martha Van Rensselaer starting in 1900. The bulletin suggested solutions to problems farmers’ wives faced, and was written at a kitchen table in the basement of Morrill Hall. Liberty Hyde Bailey suggested that she write the bulletin to accompany one sent to farmers.

Response to the newsletter was so great that Cornell offered more courses in home economics. In 1908, the courses were organized into a department. Some people did not support the new classes because they believed young women should learn to cook and clean at home. The classes were very popular, however, for both men and women, and soon needed a new home economics building, Comstock Hall.

The department grew and became the School of Home Economics in 1919 and the College of Home Economics in 1925. Enrollment in the college was so large that the new building was dedicated to Martha Van Rensselaer in 1934.

Students were required to take core courses in food, shelter, clothing, child development and home management. There was only one major, home economics. It was possible to take courses in other colleges, but there was little room to specialize within the major.

Students and faculty called for reevaluation of the college’s main goals and its name in the early 1960s said Dr. Mary Purchase MS ’49, Professor Emerita. “The college shrank the number of core courses required at that time, lowered the number of departments from which the students had to choose courses from seven to five, and began to allow for some specialization,” said Purchase. “The departments expanded to include classes involving social institutions and the physical environment and got rid of many courses and research projects that were out of date.

“The two major goals of the college in 1961 were to educate young people first in homemaking and second as professionals,” Purchase said. Both the students and faculty felt the goals were listed in the wrong order because they were being trained primarily to be professionals. The 1962 college catalogue reflected the suggested change in the order of the goals, but the question of changing the name of the college was still at large.

People involved with the college felt that the name “College of Home Economics” gave others a limited view of what they were doing. “It also scared
to Human Ecology
a Name?

away many prospective students, especially male undergraduates," said Purchase.

In 1969 there were only five male undergraduates, but, since then, the college has been recruiting heavily for undergraduate males. "We knew the interest was there, but did not know how to get male undergrads to apply," said Purchase. The number of males has increased dramatically since that time. "The college's change in name is very important to the male alumni," said Cook.

The proposed name change was the topic of many discussions and many reports. In December 1966 the first draft of the Blackwell Report was submitted to Cornell President James A. Perkins. The report suggested changes in everything about the college from its name to its organization.

Among the new names suggested, however, the "College of Human Ecology" was not high on the original list. In fact, it was one of 13 names below the top four suggested. By May 1967 there were only two choices for a new name, "College of Human Development" and "College of Human Ecology."

In November 1967 the faculty, the Alumni Executive Committee, Cornell trustees, and officials from the State University of New York approved the name "New York State College of Human Ecology." Blackwell said the new dean, David Knapp was a major factor in convincing the faculty that it should choose "human ecology." Then-Governor Nelson Rockefeller signed a law changing the name in April of 1969 after the appropriate legislation was passed. The name-change was official on July 1, 1969.

How have people viewed the change? "Alumni," especially from the 1940s or 50s, said Professor Emerita Sara Blackwell, co-author of the Blackwell Report, "were probably the most edgy about it." Cook said, "Many of the alumni believe home economics has always been an important and noble profession and nothing is more important than the home. In some way by changing the name they think we also take our focus away from the family."

Fortunately, Cook said, this is not the general consensus. For example, Bernice Hopkins '32 said, "I might say personally that the name human ecology is better than home ec. When I graduated you could do two things, become a hospital dietician or teach."

"The college always had an emphasis on family life," she said, "but now it's expanded to include so much more, like the social services. Life has changed, and I think we've kept up with the times."

Cook said that the majority view the name change with pride because of what the college has become. "It was never a traditional home ec program," Cook said. "The new name helps alumni to explain what their college is and the types of research done there."

However, Hopkins pointed out, "Some people, particularly of my generation, think 'human ecology' is not definitive. It took a while for officials to define 'human ecology', but the 1969 Home Economics College Report said it is 'the study of human beings in relation to their near environment ... the interaction of the human being with that environment as he develops physically, mentally, and creatively.'"

"Many people have recognized only one home economist in their lives—probably a junior high teacher—and made a strong stereotype of home economics from them. I was not excited about the name change, but was convinced as I spoke with others who could not see beyond the name," said Blackwell. If her statement is true in most cases, it is a good thing the College of Human Ecology changed its name, especially in view of my eclair affair.□

Opposite page, left: The Department of Home Economics became a reality, thanks to Flora Rose (l) and Martha Van Rensselaer. Opposite page, right: Students watch a cooking demonstration in MVR Hall's amphitheatere in 1939. Left: In 1984, professor and students don hard hats to inspect the interior design of a building under construction.

by Frances J. Morris '87
NO MORE M.R.S. DEGREE

In Rulloff's, a popular Collegetown restaurant/bar, you can hear Cornell men talk about the Cornell women. In the Ivy Room you can hear Cornell men talk about the Cornell women. Almost everywhere on campus, you can hear Cornell men talk about Cornell women. Most of the time, these men talk about a woman's attributes—but almost never—never do they say that a woman is here at Cornell to get her MRS. degree, as it was commonly said in the 1950s.

And it's a good thing. Women of the 1980s do not go to college merely to get a husband. Even better, women of the 80s appreciate the respect men give to those who work hard, who have ambition, who do not just want to become a wife and mother.

An article in The Cornell Countryman (October, 1949) reports on what is now known as the College of Human Ecology. In the late 1940s, human ecology was known as Home Economics. Marian Schmidt '50, the author of this article "They Call Us Pre-Weds!" wrote, "As a college major, Home Economics is definitely on the upswing. It is no longer a lark or an advanced finishing school where a young lady is kept until she is ready for marriage, but rather a technical preparatory course for women in the field for which they are naturally adapted."

This passage was especially humorous to many current Cornell students who read Schmidt's article. These students did not realize 38 years can make a huge difference on how people would see women's roles. The article focused on things a good wife and mother should definitely know: nutrition, fashion, decorating, beauty care and childcare. When asked how she felt after reading the article, Joanna Nowacki '87 replied, "This article makes me realize how lucky women are now. I would be offended if anyone thought I was here primarily to get a MRS. degree. I didn't come to Cornell to learn how to be a housewife. I came to Cornell to apply myself—to reach my potential for my career."

Debbie Kranz '87 agreed. "Women are equal to men now. I find it insulting that in the 1950s, a woman's intelligence was measured by what was of second nature to her already."

Other students agreed with these statements. However another dimension was soon added—finding a husband at Cornell. There seems to be a consensus, especially among Cornell women, that it was not worth it to spend too much time looking for a man at Cornell. After all, most Cornellians are at school to make themselves more marketable in the work world. Therefore, many students—male or female—have very little time to be committed to others besides themselves.

Many students could not see themselves getting married now. Some students said, "I'm too young." Others said, "Why should I get married now when I can experience life now? I want to be selfish. I'm not ready to have children or even a partner. I want a career."

Ilir Zherka '89 added, "I wouldn't mind having a girlfriend right now, but a relationship takes too much time and commitment. I would rather study hard and prepare for a career. After that, I would like to think about settling down. But much later."

In a university where "Any person can find instruction in any study," women are not limited to what they can learn now. In the 1950s, many women went to college to get a husband. Now in the 1980s, women go to college to learn. They learn how to be doctors, lawyers, teachers, nutritionists—anything they want. The 1980s is not a time where people are so close minded as to believe that the only place for a woman is in the home. It is a time for advancement, for change, for improvement. Although much still needs to be done to improve society's view of women, the 1980s has been a good decade for women.

by Vivian Y. Lee '87
Drinking on Campus Today

It has been a little over one year since the drinking age was raised in New York state from 19 to 21. The law has affected a great many aspects of Cornell's social life as well as academic habits. Many of the social events that Cornell students once attended and enjoyed have now been stripped of their attractive qualities. Events like "Fun in the Sun" became non-alcoholic and almost moved off the arts quad, and "Springfest" became non-alcoholic and moved up to an enclosed area on North Campus, and the Phi Psi 500 became non-alcoholic and disappeared at least for one year.

The most pronounced effect of the new law has been on fraternity parties. Cornell weekends were once dominated by open fraternity parties, which often took place outside, and involved serving alcohol to all people. Since the change in the law, a policy was established by the Dean of Students' office banning open frat parties where alcoholic beverages are served. To achieve this policy, Janiece Oblak, the Dean for Fraternities and Sororities set forth a regulation stating that houses can no longer advertise parties in ways like posting fliers on campus or advertising in The Cornell Daily Sun. Houses can still have closed invitation-only parties with alcohol. According to Constantine Chinopros "88, president of Sigma Phi Epsilon fraternity, "I miss the days of open parties, but unfortunately the drinking age changed to 21 and we must throw closed, regulated parties which are not as socially exciting."

The change in the drinking age has also apparently changed the study habits of Cornell students. Since there is less opportunity to party, many students find themselves with little to do with their time but study. More studying is certainly a positive effect of the law, but a problem arises because it is less conducive to socializing. Carolyn Cassin '90, a freshman at Cornell, pointed out that, "I feel like I'm missing something socially. I hear stories about open frat parties and other events and I wish I had the chance to participate in these activities."

But has raising the drinking age of alcohol to 21 really had an impact on students' drinking habits and if so, have they adapted to change? As part of its Alcohol Risk Reduction Program, Cornell University Health Services conducted a survey of the drinking behaviors of Cornell students in the fall of 1986. 24 percent of the sample reported drinking in their room or apartment more because of the new law, 15 percent reported drinking less overall, and 53 percent reported no change in their drinking habits.

Some Cornell students have adapted in other ways. Many underage students who used to go to open frat parties, now go to some of the local bars that allow admission of people 18 years old and older. These underage students go to bars with friends who are of legal drinking age.

Maria Massi '90, an underage Cornell student, stated, "One evening I was bored and had nothing to do, so I asked some of my friends, who were of legal drinking age, if they wanted to go out. They said yes and we went to one of the local Ithaca bars. I was allowed to get into the bar because they permit people who are 18 and older to enter and I'm 18."

The change in the drinking age to 21, for better or for worse, has profoundly changed the college experience for many students. Since the change, the Cornell community seems to have adjusted to the drinking law. Student drinking has increased in private areas and decreased in public areas of the college community. Unfortunately, the law appears to have placed a damper on the social life of Cornell underage students.

by David Hawxhurst '88
The hush of the audience was the only sound heard when the three performers advanced on stage. But as the music began, the roar of the crowd almost drowned out the brilliant performance of Michael Russo '88, Michael Roles '88 and John Kaiden '88, in their rendition of Night Ranger's "(You Can Still) Rock in America." The song came to a close, and the excitement from the fans was ear piercing. The band walked off the stage waving—tired but happy. They were the grand winners of the Fall 1986 Lip Sync contest of Cornell University.

Lip syncing, mouthing the words to songs, is one of the many contests and games that have developed through the years. Over twenty years ago, masses of students were flipping plastic chips into small plastic cups, better known as tiddlywinking. "Winking" is no longer played on campus, but in its place many new contests and games, as well as new twists to old ones, are being developed. The trends of these games and contests seem to reflect the changing times and the changing attitudes of college students.

During the sixties, the contests of both men and women had gone through a fairly subtle transition. The more traditional parlor games from earlier decades, such as dominoes and checkers, had become outdated. Games such as chess, darts, backgammon, bridge and other card games were more common. Billiards was then one of the most active recreational activities on campus. Dance-a-thons had high interest levels and intellectual contests, like the nationally televised College Bowl, were extremely popular.

But also, a more dramatic change occurred at this time: the formation of co-ed teams. Until then, men and women had been segregated, but the sixties was a time of upheaval in all respects. With the development of protest movements, the students' interests also became more personally oriented. So, although there was an increase in co-ed events, there was an increase in more individual events, too. The late sixties and early seventies also saw the decline and eventual dying out of the College Bowl. Tiddlywinks, too, suffered at this time. These changes, and similar others, have been attributed to the more intense political climate on campus and the more serious attitudes of the students of the time. Although people enjoyed some creative contests, like the "anything-that-floats-but-isn't-a-boat" contest, there seemed to be little room for frivolities.

This idea of individuality remained throughout the seventies and has continued into the eighties. Technology allowed video games to become the craze, leading to all sorts of video game competitions. Also, the creative juices of students have always been tested in all sorts of artistic contests, but these have become especially popular in recent years. At Cornell, holiday window design contests have been prevalent, as have logo design contests. Two years ago, there was a contest for a new Willard Straight Logo, and just re-

**Cornell's College Bowl team of 1969 travelled nationwide to match wits against other teams.**

**A winning flip—tiddlywink contests were very popular, and took place in Willard Straight Hall in the 60s.**
Recently Randall Wm. Chettleburgh '87, was the winner of a logo design contest for the Alfalfa Room Coffee Shop of Warren Hall on the agriculture quad. Said Annemarie Millin, assistant director of Willard Straight Hall, "There is a lot of expertise on this campus. Therefore it helps when the budget is a little tight, because the students can be just as good as any company we would need to hire to do something creative."

The lip syncing idea was first seen at the end of the seventies and the very beginning of the eighties with the popularity of video tapes, music videos and the whole notion of fashion dressing and modern lifestyles. Although especially prevalent in high schools, lip syncing also became popular in colleges, which in turn inspired the lip sync contests all across the nation. The Battle of the Bands, where bands perform their own songs in a competition, has also sprung up at Cornell in response to the music video craze. Moreover, with the increase in the attention to looks at this time, contests such as the "Ugly Man on Campus," and the "Raunchiest Sneakers" appeared. The college bowls that were so popular in the sixties have also come back, two years running. A new twist is the Black Quiz Bowls, in honor of Black History Month. And other more intellectually based contests have also appeared: the egg drop contest and the bridge contest on the engineering quad, and a model paper airplane contest in Barton Hall.

Overall, one major factor that has helped in this revival of the college bowls, and the introduction of other new contests, is the help in financing by major corporations such as Energizer, General Electric and Kanteen. In the last couple of years, the corporations have been trying to gain access to college campuses in order to get to know students who could be prospective employees.

Another major factor is, again, the idea of individuality. As described by LeNorman Strong, the director of Willard Straight Hall, "Students are more oriented toward personal satisfaction in their pursuit of games and contests. And so now, they are participating in and trying new things more than ever before." Therefore, it is easier for a new contest or game to gain acceptance. An observation on a similar point comes from Ron Loomis, Director of Unions and Activities in Willard Straight Hall. "Students throughout the years, whether they are active in the frivolous or more intellectually stimulating contests and games, approach them with a remarkable degree of intensity." He believes that all contests and games serve an important function in that they provide release from the tension and stress of college studies. This release, he thinks, comes from both the intellectual as well as the more silly events, because of needed change from everyday academia.

So with the progression of years, and the changing of times and attitudes, there have been a range of modifications, from the small to the great, in the development of contests and games on the Cornell campus. And as long as society and technology keep changing, aggressive and creative students will keep finding new ways to play and compete.

Creativity and speed were the goal in the "anything-that-floats-but-isn't-boat" contests of the 70s.

A lip-sync competition at Robert Purcell Union typifies 80s contests.
Microbes in the Sugar Bush

The "sugar bush," where maple syrup is harvested about mid-March, is subject every year to a microbe invasion. According to Professor John W. Kelley PhD '68, of the Department of Natural Resources at the New York State College of Agriculture and Life Sciences, microbial activity has a lot to do with the quality of the maple syrup you have on your breakfast table.

Commercial syrup is divided into two categories, U.S. Grade A and U.S. Grade B, said Kelley, who teaches "Maple Syrup Production" during the spring semester.

"Grade B syrup is not suitable for retail sale. But Grade A syrup is rated at three retail quality levels: light amber, medium amber and dark amber," Kelley said. "The lighter syrup is the most desirable, and microbes affect the color and quality of the syrup."

Sap comes out of the sugar maple tree as an essentially weak sterile sucrose sugar solution (about 2% sugar), but as soon the sap leaves the tree and is exposed to air, microbial activity begins. The fermentation increases at a temperature-dependent exponential rate. Early in the season, when the weather is not very warm, microbes do not present much of a problem. Light amber syrup is usually made at this time. As the season progresses, with warmer days and larger flows, bacteria are growing as soon as the sap leaves the tree and enters the containers, said Kelley.

"On the warmer days there is a greater inoculation opportunity in the containers, and fighting sap fermentation becomes a real problem," said Kelley.

In order to retard fermentation a producer should clean the collecting equipment frequently with a weak solution of bleach, he said.

"During the warm part of the season, I have stood and watched tanks of sap change color because the bacterial activity was so fast," Kelley said. "I have seen sap that would give a good medium amber color turn to a poor, dark amber in one hour. This is why it is very important to process the syrup just as fast as possible and not let it sit around."

Some producers have tried using ultraviolet lights, refrigerating their holding tanks or burying the tanks in the ground to retard the bacterial activity.

"Theoretically, if the sap could be kept sterile throughout the whole season, you could make U.S. Grade A light amber syrup "till the cows come home," he said with a grin. "But the odds are against you. At the end of the season, because of the increased temperature and microbe activity, most producers are making dark amber syrup."

Microbes not only create problems with syrup collection, they invade other aspects of the sugaring operation. There has always been a problem of microbial growth occurring inside the taphole. The cells in the open wound of
the tree become sealed over by the bacterial growth which prevents or delters the sap from flowing, said Kelley.

In the old days, about half way through the season, the producer would go around to his spiles (the sap collecting spouts) and ream each hole, or "freshen it up" to retain the flow. Some producers tapped new holes, but additional holes put more stress on the tree, he said.

"So a few years back, producers started using paraformaldehyde as a bactericide," said Kelley. "They would use forceps and place the aspirin-size pellets into the hole right after they tapped it and would then drive their spile into the hole. The pellet was a slow-release bactericide that kept the tap hole sanitized and operating longer during the season.''

In recent years, many producers started using plastic tubing instead of spiles. Vacuum pumps have also been used to draw out the sap. The vacuum systems operate on the principle that sap will flow if pressures within the tree are greater than the atmospheric pressure. On a very high pressure day, even if there is a lot of sap in the tree, the sap will not come out without help.

"The internal pressure inside the tree comes from heat and respiratory gases such as carbon dioxide. The heat causes the gas to expand, which creates the pressure for sap to flow," Kelley said. "On many days during the season there are 'weeping flows,' where the pressure is just enough to generate a small gradient. The sap will flow just a little. A vacuum pump and tubing system can create a pressure gradient that will induce a good strong flow, even on weeping days. The system can increase the yield up to four times, and improve the flow of sap through the lines. Even more important, a vacuum system is a sealed one, and the hole in the tree is not as exposed to the atmosphere.''

It is not necessary to use paraformaldehyde pellets with a vacuum pump system since the microbial activity is lower than in an open system.

"But customs die slowly. It is taken a long time to get producers to start using the pellet," said Kelley. "Once they started using the pellet, it took a long time to re-educate producers and to convince them to stop.''

Research indicated the pellets caused additional stress to the trees. The tap holes took longer to heal when pellets were used, and a greater amount of dead wood seemed to form around the tap holes, he said.

"In the inner wood of a sugar maple, there is a large proportion of sapwood, where the sap flows up and down through the tree," said Kelley. "As the tree grows the old tap holes are sealed over with new wood. A tree protects itself from the wounds by compartmentalizing around the wound, in effect closing off or sealing the injured parts of the tree.''

Evidence of this can be seen in an elliptically damaged wood area inside the bark of the tree up to 18 inches above and below the hole, where the tree can no longer be tapped.

The agriculture college has two New York state facilities to study the new innovations and problems of maple sugar production. An operation at Lake Placid has about 4,000 taps, and the Arnot Teaching and Research Forest has about 1,500 taps.

"The operation at Arnot is really amazing," said Stephen Saraydar, an Assistant Professor at the American Indian Program. "There seems to be miles of tubes running from tree to tree and down to the collecting station.''

Milton Barnett AB '47 PhD '52, a Professor Emeritus of Rural Sociology and Asian Studies at the agriculture college, produces syrup for a hobby, using buckets and bees.

"My wife and I like the lighter syrup, and we like to give it to our friends as gifts," said Barnett. "I like sugaring because it gets me outside.''

Kelley has been producing his own maple syrup as a hobby, always trying to figure out new ways to improve his production. "I've been doing this as a hobby operation for about the last seven or eight years. I have about a hundred and sixty taps and a small evaporator," he said.

"Most maple producers are really pretty innovative characters. They need to have the knowledge of a plumber, an electrician, a chemist, a biologist . . . you name it," said Kelley. "Personally, I like to refer to my maple operation as another hobby gone out of control."
With all the expansion and construction that has taken place at Cornell recently, it is sometimes nice to know that an older building suits a specific purpose as well as, or better than, a newer, more up to date building would. Such is the case with the Department of Communication's Graduate Teaching and Research Center.

The building, which is commonly referred to as the "Grad Center," is located just across the street from Noyes Center on West Campus, at 640 Stewart Avenue. It dates back to 1901, when it was built for Robert H. and Laura Treman. The Tremans occupied it until their deaths in the 1930s, when it was turned over to their son, Robert E. Treman, and his second wife, Carolyn.

In 1944, the Tremans sold the house to the University for $28,000. Cornell in turn leased it to the Phi Sigma Delta fraternity, which occupied the house for the next 25 years. When Phi Sigma Delta disbanded in 1969, the house became available. That is where the communication department, at that time the communication arts department, entered the picture.

It was that same year that the decision was made to expand the communication arts major to include a graduate program, making it necessary to find space to house it. The fraternity's timely departure made the former Treman house available as a suitable new home for the expanded communications program. The department, led by Prof. William B. Ward, department chairman at the time, jumped at the chance to secure it.

With the first communication arts graduate students scheduled to arrive in the fall of 1970, and the house in quite a mess from its previous occupants, there was quite a clean up job still to be done.

During the next few months following the acquisition, the communication arts staff, including the professors and newly accepted graduate students, worked together to put the house back into usable condition. All in all, 15 dumptruck loads of trash were removed from the building, according to Prof. Royal D. Colle PhD '67, the present department chairman. Little of the house's original furnishings were left, due in part to break-ins during the cleanup period. Fortunately, the frescoes in the wood surrounding the doorframes and fireplace, carved by Laura Treman herself when the house was built, were left intact.

Brian Earle '67 MPS '71, now a senior lecturer in the department, was among that first group of graduate students who helped with the cleanup. "Working together like that really generated some esprit de corps," said Earle. "We knew that the more we did, the better the results would be. It really united us as a group."

Over the next few years, the Grad Center established itself as an ideal place for meetings, seminars and studying, as well as an added attraction for prospective graduate students. Plans for graduate student offices did not work out, however, according to Earle, because too few students took advantage of them.

There have been some drawbacks using an old building, according to Earle, such as big heating bills due to poor insulation and occasional plumbing problems, but the pros have outweighed the cons.

"The Graduate Center is a perfect place for seminars and workshops, thanks to its less antiseptic atmosphere," said Colle, and Earle agrees. "It's a great social place, both for formal purposes and smaller, more intimate gatherings," said Earle. Among those purposes is the Communication Planning and Strategy seminar held there every summer, attracting professionals from all over the world. Several communications courses, such as Photo Communication and Writing for Magazines, are presently held at the center as well.

Communications research performed at the center has been moved to Roberts Hall over the past five years, but due to a shortage of office space, some of it will soon be returning to the Grad Center.

Acquiring the Grad Center has proven to be a wise decision by the communication department. "The place definitely has character," said Colle. "If we should ever have to leave it, I truly hope creative use is made of it. It would make an excellent training program location with its good A/V facilities along with everything else."
GLENN MUELLER 
SCORES FOR CORNELL 

by Mark H. Paikoff ’88

"Cornell has expanded dramatically. I think it has continued to increase its prestige nationally in all academic programs. That's very exciting for me to be a part of," said Glen C. Mueller BS '72 MBA '74, Director of Auditing for Cornell University. Mueller's job at the auditing office involves two main goals. First of all, Mueller said, "We are building a computer audit function. This would audit all the major computerized functions of the University. The second is establishing an operational audit program evaluating the efficiency and effectiveness of various programs here at Cornell."

Mueller is also a full-time instructor for the Johnson Graduate School of Management's auditing class. He gives a lecture which explains internal control systems to the ag college's course in financial accounting.

After Mueller graduated in 1974 from the ag college, he worked for a number of firms and was Vice-President of Information Services for Amex Corporation in Connecticut before he returned to Cornell. Mueller’s road back to Ithaca was a somewhat unexpected one. "There was a search going on and I came back for an interview. I was interested because it was Cornell. I was not actively seeking to come back to the University," he said.

However, Mueller said life at Cornell is not far removed from the large companies. "I left the corporate world where I was vice-president of a large corporation and I feel I see many of the same administrative challenges and complexities here at Cornell," Mueller said and added, "For me, personally, it’s as challenging or more challenging an environment to be dealing with large scale administrative systems."

Mueller's days as a student at Cornell were busy ones. He played varsity lacrosse and basketball for the Big Red. In 1971 he was a member of the first Cornell lacrosse team to win a national championship. In 1972 he was a tri-captain of the team and in both those years he was an All-American in lacrosse.

While Mueller’s lacrosse team was winning the national title in 1971 however, the basketball team had just suffered through a 5–21 season. "During the same year, I was able to be on a national championship team and learn what winning is about," he said and continued, "and by playing basketball, I was able to contribute to a program that wasn’t winning. They were both very good learning experiences, but on either side of the spectrum."

In the 15 years that have passed since Mueller's first Cornell degree, he has seen some changes in the students. "There was a change in the early 70s in students' attitudes towards careers. They seem to be more focused. I see freshmen coming in that are more focused on their careers and interests, where they want to be, as opposed to the late 60s and early 70s. "To put things in perspective, two of the four years I was here as an undergraduate, Cornell closed down in the spring semester because of demonstrations. They were very different times," he said.

One of the most interesting things Mueller has seen since graduating is "the extreme loyalty of the Cornell alumni and the special feelings they have towards the University. You can only appreciate it once you graduate and see other people and how they relate to the University after they've left," he said.

Mueller does have some advice for current ag college students interested in the accounting profession. "Certainly, the focus on interpersonal skills as well as pure academic courses is important," he said and added, "What I've found in the corporate world is that the leaders who are succeeding are those that are able to master these skills and promote their own technical skills within the organization."

Regarding his current job, Mueller said that many people, especially students, "don’t realize the large systems and the large tasks that are necessary both on the academic and the purely administrative side of just making Cornell run on a day-to-day basis. We take it for granted that there’s heat in the buildings, everyone’s registered and all the bills are paid."

Mueller put it all in perspective when he said, "Cornell operates on a budget close to $800 million per year and is managing $2 billion in assets. These are the things to me that become more fascinating the more you learn about Cornell."

Former champion lacrosse player Glen C. Mueller now directs auditing at Cornell.
Warren Years in China

On a crisp, winter morning, sunlight pours golden pools upon Stanley Warren's dining room table. As the rays transform green leaves into the color of jade, Stanley Warren unravels the tapestry of his years in China in 1931 and 1932.

Warren '27 PhD '31, former professor in the Department of Agricultural Economics at the College of Agriculture and Life Sciences, travelled to Nanjing, China in 1931 as a statistician. His job was to assist J. Lossing Buck '14 PhD '33 to summarize information on the use of land in China.

Warren said that in 1931, the worst flood in 80 years had occurred in the Yangtze River Valley. The river had overflowed the valley and collapsed dikes. As a result, a relief arrangement was established to bring wheat from the United States to this area. The wheat was distributed to workers rebuilding the dikes. According to Warren, the Chinese government's question was, "You've got this wheat for relief. Where do you send it? The Yangtze River Valley is a lot of territory." Flood waters do not discriminate.

In August, Buck suggested a survey be taken for the purposes of estimating the damages. This would determine where the relief wheat would be most needed. The Director of the National Flood Relief Commission approved his plan. Warren explained, "As you went around the area, naturally each man claimed to have the largest damage in the area. Our work was to judge between differences of opinion." Warren organized survey methodology and assisted in gathering quantitative information. The flood survey occupied their time until early January.

Warren continued, "Then around early February, during the Sino-Japanese War, the Chinese were boycotting all Japanese businesses in Shanghai. The Japanese had warships anchored in the Yangtze River at Nanjing. The Japanese sent Marines to Shanghai to settle problems. Apparently, the warlords Chiang Kai Shek and Sun Fo, the son of Sun Yat Sen and leader of the Cantonese army, were to talk of peace. The last time that Sun went to Nanjing, he was made a prisoner in his own home by Chiang. Sun Fo said that this time he would only come to the peace talks if he was escorted by his army. "As his army passed through Shanghai, the Japanese ran into the Cantonese army. Neither expected the other one to be there." A war ensued. Two million people were left homeless as a result of the destruction.

Warren left for two months, then returned in April to help with a war survey. He summarized data that was used to guide the Ministry of Finance and the Chinese government to distribute relief funds to the people around Shanghai who had suffered damage because of warfare.

Warren observed that the same damage seemed to occur regardless of whether a Chinese or Japanese army had been quartered at a site. When he discussed this knowledge with a Chinese associate, the associate explained that there was nothing strange about that. When an army lives in an area, it does not matter whose army it is. Armies consume everything.

Buck eventually wrote Land Utilization in China based on the survey research in which he was assisted by Warren and subsequent post-doctoral graduates from Cornell. Warren returned to Cornell University where he taught Farm Management, Farm Appraisal and agricultural economics courses to students for 40 years. He has since retired.

The College is now in the process of establishing a teaching scholarship in honor of Stanley Warren, the outstanding professor who spent his early career days in China.

by Karen Kao '87
STRAY-VOLTAGE

It may be shocking news to the non-farmer, but dairymen across the country are reporting the various effects that "stray voltage" or neutral-to-earth voltage has on the milk production of their cows. In layman's terms, this is a leakage of electrical current that could come from various electrical sources on the farm. Concerns of the dairyman and legal suits brought against several utility companies by dairy farmers have prompted research at three major locations across the country. Utility companies have requisitioned scientists at Cornell University to study the problem in depth to determine the actual connection between stray voltage and the health, behavior and production of cows.

One of the first studies done on stray voltage and its effects on cattle was conducted in New Zealand at the Ruakura Animal Institute during the sixties, said Ronald C. Gorewit, Associate Professor of Animal Science and director of the present studies being conducted at Cornell. Many of the arguments presented by the prosecution used this first study as proof, he said. But the techniques used at the New Zealand facilities lacked comprehensiveness and are not considered reliable, since it was one of the first studies concentrating on the physiological or animal effects of voltage, said Gorewit.

Gorewit has been studying this problem since 1980 when he and several graduate students began investigating the physiological effects of electrical current on cattle. These studies were concerned with amperes of current electricity, which is a voltage much more harmful to living things than the electricity to which cows are normally exposed.

The direction of research has changed to reflect the occurrence of stray voltage on the farm. The utility companies want to know what is actually happening in the barns and not what could happen in a laboratory setting, said Gorewit.

Farmers are asserting that their cows' milk production is being affected either directly or indirectly by electricity "leaking" from equipment supplied through the utilities.

Several institutions are busy studying the three basic areas connected with the problem. The University of Minnesota is studying the behavioral aspects of stray voltage to determine how cows react to electrical shocks, Michigan State is exploring power distribution or the physical properties of the power pole to discover how voltage could manage to "leak" from the power source. The Cornell research group is concerned with the physiological and behavioral effects of electricity on cattle and its distribution paths within the barn.

Complaints come from all across the country, especially from Minnesota, Wisconsin, Michigan, New York, and Pennsylvania. David Thompson is one local farmer who has seen his cows react to stray voltage on his farm at 209 Iradell Road in Trumansburg. The source of voltage was in equipment owned by Thompson, but the effects on his cattle correlated with some of the findings of Cornell researchers. Thompson said his cows were dancing in his milking parlor, were refusing to enter the parlor at all and were afraid of the feeder. There was a drop in milk production, primarily because the cows were not eating their normal amounts and were suffering from a stressful situation, he said. Thompson's first step in solving his problem was to bring in an electrician and thoroughly check his own equipment. The trouble was eradicated when the source of stray electricity, amounting to ten volts, was found in a faulty ballast on a fluorescent lamp and in faulty wiring in a feeder motor, he said. After the stray voltage was rounded up and reduced to .3 volts which is a normal emission figure, the cows' behavior returned to normal and their milk production increased to its normal level.

Chuck Collins, a representative from NYSEG explained the process involved in investigating complaints of stray voltage on a farm. After a farmer expresses his concern the company makes a "neutral ground run" to check for inadequate grounding systems, Collins said. This measures the potential or difference between alternating current and level of current in the ground. This figure is measured against adjacent ground to see if there is a significant difference. If there is any suspicion that there is a leak from the company's equipment, they will disconnect the neutral and isolate that particular farm until the problem is resolved, Collins said.

Assessing the progress made so far in their studies, Gorewit stressed that the farm is a very complex environment and electrical trouble could result from a myriad of sources. The results of his research on the production, behavior and health of cows exposed to 0 to 4 volts, show that there appears to be some connection when the cows refuse to take in adequate amounts of water because of the shocks from the water bowl, he said. Over a period of time, the cows become acclimated to low voltage levels, he said. But routine and scheduled voltage applied to cattle is not what always occurs in the farm environment.

Gorewit is frequently called to testify as an expert witness in cases involving stray voltage. The studies, planned to be completed in 1989, will supply the utility companies with some solid, more reliable statistics and conclude ten years of stray voltage research for Gorewit. □
Radicchio, tomatillos, finocchio, and kohlrabi; they sound like characters from a Shakespearean play. Actually, these are four of many specialty crops, less common vegetables such as gourmet and Chinese vegetables and culinary herbs. Many of these specialty crops will be grown, harvested, and marketed by a group of youth apprentices involved in the Vegetable Crops Youth Apprentice Program, part of Cornell University's non-credit summer session.

The program, beginning at Cornell University in the summer of 1987, will involve five paid youth apprentices every two weeks. During these two weeks of work, the apprentices will come to Cornell to learn through hands-on training about specialty crop planting, irrigation, evaluation and harvesting without the use of heavy machinery or spraying. After tending and harvesting their crops, the apprentices will sell some of the vegetables at Ithaca's Farmers' Market.

Among the many specialists that will aid in the training, a nutritionist will teach about the nutritional value of the crops and about sensory perception, which consists of discriminating by taste between two vegetables that look alike.

The apprentices will also have the opportunity to become specialists in one aspect of the growing or harvesting process by working on an individual project. Each student will select something in which they are interested; for example, the effects of heat units generated by plant covers on the growth of sweet potatoes, or enhancing snap pea production in the summer's heat. The apprentices will independently write a paper and deliver a short presentation on the subject. Program developer and Senior Extension Associate in the Department of Vegetable Crops, Roger Kline MS '69 believes that this project will give the apprentices an area of focus and specialization, and it will offer them the chance to work individually with something in which they are interested.

Several times during the apprenticeship, Kline and other professionals will teach lessons on general plant growth, insects and diseases, nutrient transport in plants and other subjects. The two weeks will not be all work, however. Two or three times a week, the apprentices will have enrichment activities in which to participate.

"I assume from the initial reaction to limited press releases," Kline said, "that we will be swamped with applicants." The apprentices must go through a selection process which requires them to fill out an application, have a sponsor such as a 4-H
agent or a teacher write a letter of recommendation, and demonstrate some experience in gardening. Kline said, "I imagine 4-Hers and Future Farmers of America will respond the most, but I'll consider anyone who has the background."

Mustard cone is just one of the unique crops that will be grown, marketed and harvested by apprentices.

Apprentices also learn about radicchio and other novelty vegetables.

The program's field work will be supervised by Kevin L. Cook, '89. He will supervise the daily work and crop tending in the field. Cook recommends that the applicants should have two or three years of gardening experience in order to benefit the most from the apprenticeship. He said, "We would like to see someone who has shown an interest in gardening, themselves." An additional program requirement is that the applicant's sponsor outline a way in which the apprentice will use the knowledge and planting techniques for specialty crops. Kline decided to employ youth as his laborers, with the help of another grant he may receive from the 4-H Foundation, and turn the employment into an educational experience.

Kline said that some of the program's details still need to be worked out. For example, he wants to include 14- and 15-year-olds in the program, but Cornell does not typically hire anyone under the age of 16. Paperwork that will allow younger apprentices to be employed by Cornell must be drawn up. The paperwork will explain the details of the program, describe living quarters and provide safeguards for the younger students. The apprentices will receive minimum wage for the time they work in the field. Housing for the apprentices must also be considered. "We're not sure how they will be housed yet," Kline said. "One choice is by using host families and the other is to house them in dorms." He believes the dormitories would be beneficial because, by living together for two weeks, the apprentices may become a more cohesive working unit.

The program has not yet been much publicized. Most people who do know about the apprenticeships have found out through word of mouth. "I think the program will get a good response," said Cook. "When I was a 4-Her, I wish this opportunity had been open to me. I'm going to learn so much. It's a great opportunity for me as well as the applicants.″ The enthusiasm of the staff is reflected in the program design. Participants in the 1987 apprenticeship program are sure to enjoy an educational and exciting two weeks.

by Shari Tibbetts '87
Clearing Up the Suicide Myth

On January 17, 1987, a Cornell student leaped from the College Avenue Bridge in Ithaca, falling 80 feet to his death in Cascadilla Gorge. Thus, a 39-year-old graduate student in the Department of Agricultural Economics became the first Cornell student to commit suicide in more than four years, according to statistics from the Suicide Prevention and Crisis Service of Tompkins County, in Ithaca.

Nationally, the incidence of suicides by people between the ages of 15 and 24 has risen dramatically in recent years. Statistics show that an average 5,000 young people in that age range succeed each year in taking their own lives. This figure is triple that of 30 years ago, an increase of 300 percent. According to a 1985 article in Science News, the suicide rate for young adults has risen 41 percent in the past decade. This increase is especially apparent in the case of young males, whose suicide rate rose 50 percent in the last ten years.

The suicide rate for college students is as much as 50 percent higher than that of non-collegiate peers, largely because of the stress involved in academic success. A large, competitive university, Cornell has long had the reputation of having a high suicide rate. Keith Kushner '77 pointed out ten years ago in the April '77 issue of the Cornell Countryman that "the topography of the campus, though beautiful, lends itself to this type of discussion." Ithaca's many gorges and bridges contribute to what Kushner referred to as Cornell's "tragic myth"—the rumor that Cornell has the highest number of student suicides per year in the entire nation. In reality, however, the Cornell suicide rate is actually lower than the national average.

Jack Lewis, one of the founders of the Suicide Prevention and Crisis Counselling Service, said in the 1977 Countryman article that "A person in a crisis tends to lose perspective, and this loss throws (him) into danger." Lewis said that a particular problem with college students is that they set personal standards which are impossible to maintain. The frustration of not achieving those standards, coupled with the loss of perspective mentioned above, may trigger the radical response of suicide.

According to readily available pamphlets on suicide, there are tell-tale warning signals which are present in nearly all potentially suicidal persons. One of the characteristics is drastic mood swing—suicidal persons often develop a tendency to cry or be sad, or perhaps a desire to be alone. Another warning is a change in self-perception. The suicidal personality may begin to feel worthless or ugly. The potential suicide attempter will often have difficulty concentrating, and may appear agitated or lethargic. Perhaps the most obvious warning signals of suicidal tendencies are noticeable changes in eating or sleeping patterns. A disturbed person will often eat excessively or not at all, or sleep excessively or not at all.

Statistics show that eight out of every ten suicidal adolescents will communicate their intent to someone. Any preoccupation with death and dying might be a signal that a person is considering suicide, according to Cornell counseling services like EARS—the Empathy Assistance Referral Service. EARS provides 24-hour telephone counselling for people in emotional crises.

According to statistics given by Tompkins County's suicide prevention service, the suicide rate among Cornell students has decreased in the last ten years, although the national rate for that age group increased markedly. While Cornell had no incidents of suicide in the last four years, two Ithaca College students took their own lives during that time. In the 1977 Countryman article, data compiled over 15 years showed that 13 suicide victims were identified as Cornell students, ten of whom died in bridge related deaths. This data established an average of almost one death per year. Current data, however, shows that fewer Cornell students resorted to suicide in the last ten years, possibly because of greater availability of counselling services. Gannett Clinic, the Cornell United Religious Work, EARS and the suicide prevention service all provide counselling.

Ten years ago, Keith Kushner '77 suggested the need for a more complete compilation of data on suicide, including comparisons between suicide rates at various universities. As of this time, such a complete meta-analysis has not been made. In fact, what statistics there are on suicide, especially statistics concerning suicides among college students, appear to be quite vague. It is possible that universities do not wish to mar their reputations by acknowledging the problem of suicides on campus or by comparing their statistics with those of other colleges. Many schools, including Cornell, are even rumored to have hushed up suicide incidents in the past.

Perhaps if a grand-scale comparison of colleges with both high and low suicide rates were compiled, schools could take measures to fight the suicide problem as it exists among young people today. Although Cornell does not have the highest suicide rate in the nation, it is certainly not free from the problem. The recent tragedy on the College Avenue Bridge makes this painfully clear.

by Ann Madigan '87
Seventy Years Ago at the Onondaga Reservation

Edmund Northrup Moot '22 MS '36 has been corresponding with the Countryman for several years. The following is a letter submitted by Moot in response to "Coming Full Circle," an article recently published in the Countryman.

The article in the December 1986 issue intrigued me. Several times, during the years around 1917, I traveled with Dr. Erl Bates to the Onondaga Reservation. It was through the courtesy of my dear friend, the late professor Ralph Wheeler, who asked me to drive the extension car to the reservation with Dr. Erl Bates. Thus I was able to sit in on many of those meetings which Dr. Bates chaired.

But that is history of long ago. Let's bring ourselves up to date. My wife and I moved from the Schenectady area five years ago to be near our four generation family, of which we are the heads. Our daughter lives on the next street in Rhinebeck, NY. The town is in Dutchess County, which was once a truly agricultural county, when Tozier '22 was 4-H agent there. It is semi-urban now, with much inflated land values due to money pressure from the Big Apple.

I sought out a bank near our new home here. It happened to be a small branch of one of New York State's consolidated bank combines. But in that bank was a lady teller with whom it was easy to start conversation on an old-fashioned banking basis.

She was Mrs. Valerie Chrisjohn Nikolatos, and had detected the alumni sticker on my car. It was easy to carry on conversation as soon as I discovered she was the daughter of one of the head leaders of the Onondaga Reservation which is located west of Syracuse.

One day, she indicated that she must have been a small child, sitting on her dad's lap, when Dr. Bates and I attended a regular meeting at Onondaga Reservation. She remembered Dr. Bates because her father and the good Doctor were close friends.

I showed her the article entitled "Coming Full Circle." We will have much to inspire our conversation from now on. She will bring the article to the attention of her father, who has important status at the Onondaga Reservation at the present time.

The fine lady, formerly of the Onondaga Reservation, is now happily married to a Greek gentleman. They live in Red Hook, NY. You will admit that this splendid lady has much in common with the title of that article. We had much pleasure in discussing the capable Dr. Erl Bates who originated the work with the Onondaga Indians.

I believe we will be able to have a future article for Countryman readers when Mrs. Valerie Chrisjohn Nikolatos gets in touch with her father to obtain some observations on his work with Dr. Bates.

Knuth Named Fellow in Leadership Development Program in Washington, DC

Barbara Knuth, a specialist in natural resource policy and management at Cornell University, was named a fellow in the Leadership Development Program of the National Center for Food and Agricultural Policy in Washington, D.C.

Knuth will spend four weeks in Washington participating in seminars, workshops, briefings and discussions with senior policy leaders and analysts in the public and private sectors.

Knuth said she will analyze national policy issues involving agriculture and its relationship to natural resources. Her research focus includes analyzing public policies involving wildlife and agriculture and developing methods to improve coordination of policies, programs and institutions involved in Great Lakes fisheries management. Knuth is an assistant professor in the agriculture college at Cornell.
It used to be that people went to college, worked hard and, if they were lucky enough to attend a school with a placement service, they would virtually be “put” in a job that roughly matched their majors.

Things have changed, at least at Cornell’s College of Agriculture and Life Sciences. The College has a complete career center in Roberts Hall which aims specifically at people with ALS-related interests.

Bill Alberta MS ’77, the coordinator of the ALS Career Development Office, said alumni may have completely different images of career offices than current students do. “Alumni will remember our function as a placement function. We worked with people just during their final year or semester to place them in a job. We matched them with recruiters and it was often like trying to fit a round peg into a square hole. A strict placement approach is rather hollow. These days, we do a lot more,” he said.

And what is it that the career office does differently?

Alberta said his office tries to work with students from the first semester they come to Cornell’s agriculture college—either as freshmen or transfers. The career office staff works with students to help them decide what sorts of careers would best suit their interests and abilities. Alberta said that can be helpful in several ways.

For one, it allows the career office staff to suggest particular classes for a student to take during his time at Cornell. “The place is a smorgasbord,” he said.

Then, of course, there is the fairly recent development of the internship. Alberta stressed the need for students in the College to spend their summers in professional internships. His office, he said, can often help a student find a good opportunity. “Supply and demand often work against a student, even a Cornell student. An internship can really give a competitive edge.”

Communication student Julie Santiago ’88 is using the office to find a summer internship with a newspaper. “The staff is very helpful at the career office. They have all sorts of books listing internships available from all around the country. Without it, it would be terribly difficult to find what was available. I know someone who just went there and found about 10 opportunities she would never have known about,” she said.

Bill Alberta talked excitedly about his work. He said it is not a matter of forcing freshmen to make career choices early. “American College Testing Services say the average American college student changes majors 2.9 times. It’s a matter of knowing the options available. I don’t think there’s ever been a time when people have had such a range of options available to them. I can’t think of a time—certainly not the 60s when I was growing up. And that’s exciting,” he said.

Julie Santiago agreed that she has more career opportunities than her parents had. “Back then, they didn’t really have a choice. I know my options much better than they did,” she said.

The career office staff will also help a student learn to handle an interview and prepare a resume. Alberta made it clear his office does not prepare a resume for the student. “It’s like the old proverb: Give a person a fish, he eats for a day. Teach him to fish, he eats forever,” he said.

Alberta said that the placement function is still an important role of his office. He stressed that it is not so much finding a job for a student as finding the right job. “Unemployment is hardly a factor for our people. The big problem is misemployment,” he said.

Misemployment? Alberta explained that misemployment occurs when a job might seem to meet a student’s skills but is really not a good choice in terms of the student being happy with the place, being able to make friends or any number of factors that might make the job inappropriate.

The career office staff’s services are not limited to current agriculture college students. Alberta pointed to several ways his office tries to help alumni of the College. The office can help an alum find a current student qualified to take a job the alum needs filled. The office will also continue to help former students in their own career plans. The staff publishes a list of job opportunities for both students and alumni and is also available to give advice.

Alberta said it is not an easy road for current students. “They can’t expect any door to be opened just because they went to Cornell. They have to pick it smart to get those doors open. My goal is to give them as many keys as possible.”

by David R Fine ’87

New York State College of Agriculture and Life Sciences, a Statutory College of the State University, at Cornell University.