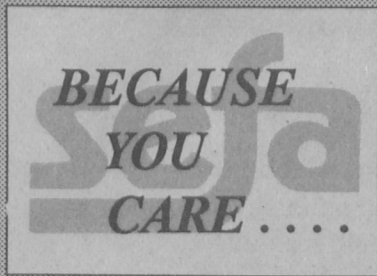


REACHING OUT



1990 SEFA/
United Way
campaign aims
to repeat last
year's success.

3

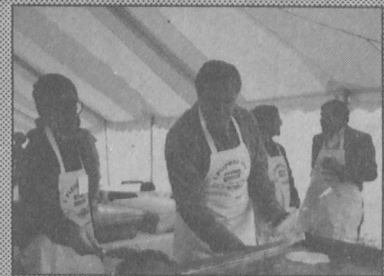
WHERE TO FIND IT



Special 8-page
Stony Brook
Resource Guide.

11

HOMECOMING 1990



Spectacular
four-day
celebration for
alumni, faculty,
staff, students
and the
community.

23

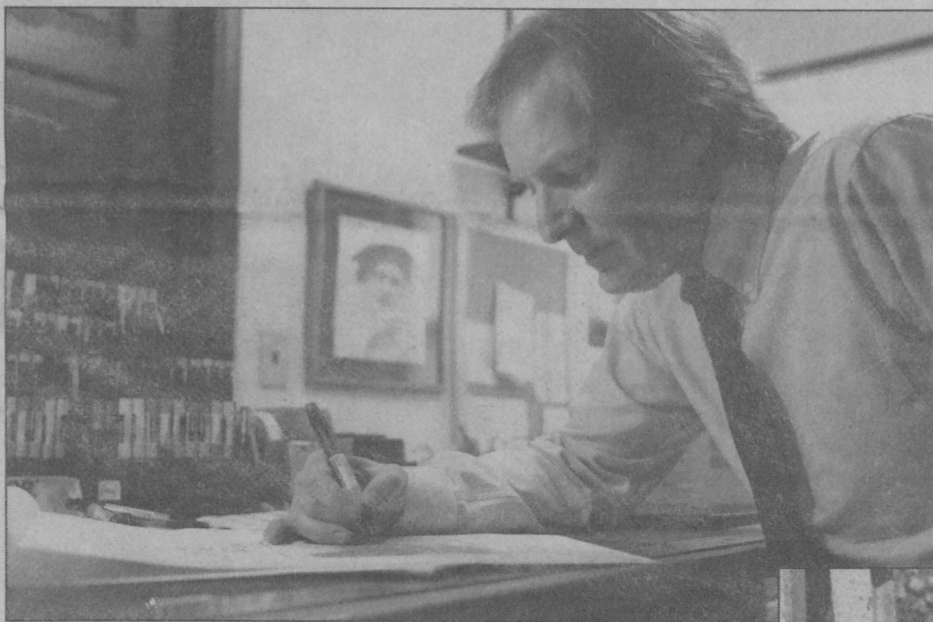
UNIVERSITY AT STONY BROOK • SUNY •
CURRENTS

OCTOBER 1990

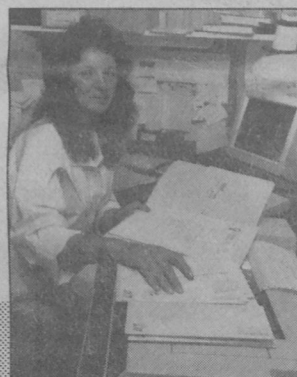
VOLUME 8, NUMBER 8

FOCUS: REGIONAL IMPACT

Supporting Long Island's Workforce



Stony Brook programs and initiatives confront the challenge of an economy in transition



PHOTOS BY MAXINE HICKS

By Carole Volkman

Manuel London, a professor in the W. Averell Harriman School for Management and Policy, spent much of his summer at the Long Island Lighting Co. (LILCO) training center in Central Islip, teaching a course in personnel management to 25 of the company's up-and-coming employees.

"LILCO wanted to provide this education so their people could take advantage of the opportunities open to them," says London, who also serves as director of the Center for Labor/Management Studies. Of the 25 students in his class, none had a bachelor's degree. What they did have, however, was the potential to benefit from a series of management courses designed to help them climb the ladder of success.

Today, efforts like LILCO's are no longer a rarity on Long Island, where companies are beginning to appreciate the benefits of keeping their employees up to date. Nowadays, companies are finding that continuing education is not only good for the employee, but for the business as well because startling changes in the demographics and economy of Long Island make such programs good business sense.

"It appears Long Island will start experiencing a labor shortage beginning in 1995," says Lee Koppelman, director of Stony Brook's Center for Regional Policy Studies. Last spring, Koppelman issued a report on the workforce, and the report made some alarming projections. Not only will there be a shortage of workers in the years ahead, but today's fast-changing technology will render some skills

Carole Volkman, who covers regional outreach at Stony Brook, coordinated the writing of this issue.

obsolete in just a few years. For that reason, employee training and retraining will become the order of the day if people are to work—and if businesses are to survive.

In fact, Koppelman's study, part of an upcoming strategic economic plan for Long Island, comes on the heels of some tough economic conditions that have begun to plague Long Island. Transportation is a problem, the cost of living is expensive, the environment is fragile, taxes are high, and

the time-honored defense industry is beginning to slow down.

Added to these issues, and in many cases because of them, are the demographics: The working population is expected to decline—by more than 25 percent in the 20-24 age group alone—because of a lower birth rate, the numbers of young people leaving Long Island, and early

continued on page 8

The Changing Workforce

According to a recent SUNY Research Foundation newsletter, the U.S. Bureau of Labor Statistics reports that the ages and ethnic backgrounds of the workforce will be changing within the next decade.

Statistics show that the average American worker will no longer be a middle-aged white male. Instead, more women and minorities will be entering the workforce during the 1990s, coinciding with the retirement of many current workers. Through the early part of the decade, women will account for 64 percent of the labor force growth. By the year 2000, 66 million women will be working, and by the end of the decade, about a quarter of the labor force will be African American, Asian American or Latinos.

Stony Brook's Stronger Relationship with Long Island

By James J. Lack

The University at Stony Brook is a cornerstone in the partnership between the academic community and Long Island's major employers in the fields of business, industry, medicine and government. Stony Brook produces



James J. Lack

highly skilled graduates and offers the existing workforce great opportunities to expand their knowledge. Furthermore, the research effort of the university continues to be even more critical to the solutions of local and regional problems.

In my 12 years in the New York State Senate, there has been a steadily growing role for Stony Brook as a focal point for

addressing Long Island's major issues. As a legislator, I can see this most clearly in the growing relationship between government officials and the university. There was a time when Stony Brook was insulated from the current of daily events. Such mundane issues as traffic congestion, land use and garbage disposal were the duty of the government, while theoretical physics, English literature and developmental psychology were the province of the university. However, as decision making becomes more complex, relying to an ever greater degree on technology and sophisticated modeling, the need for elected officials to look to the university increases directly.

I think the growing interdependence is evident on the issue of solid waste. This once dank, dirty job that required only a truck and a landfill now requires engineers, scientists, contractors, bankers, lawyers and hundreds of millions of dollars in capital investment.

One of the key players is the Waste Management Institute at Stony Brook's Marine Sciences Research Center. Funded by grants from the New York State Legislature, the Waste Management Institute has conducted experiments to develop solutions for the safe disposal of ash waste from the solid waste resource recovery process.

The significance of this work is twofold: First, Stony Brook has developed a process to stabilize incinerator ash in the form of sturdy, environmentally safe construction blocks. This could become a critical key in the success of local solid waste management planning. Second, the institute is educating skilled professionals capable of solving the next generation of solid waste issues.

Clearly, other programs, such as the School of Continuing Education, the Small Business Development Center and one to which I am particularly close, the Lyme Disease Treatment Center, provide a direct link between the university and the workforce in other fields. But the point remains the same: The university's role as a partner to Long Island business and government continues to grow. It is a relationship that I fully expect to become much stronger—and one that is good for the university as well as for Long Island.

James J. Lack (R-East Northport) is chair of the New York State Senate Labor Committee.

Did You Know That . . .

- Stony Brook is the third largest employer on Long Island. Grumman is the largest with 18,500 employees, followed by the Diocese of Rockville Center (12,550) and Stony Brook (11,000);
- Stony Brook conducts nearly \$75 million a year in research activity;
- Stony Brook's regional impact amounts to more than \$1 billion a year;
- Stony Brook awards more than 3,000 undergraduate and graduate degrees a year. Approximately 1,000 are in science and engineering and over 200 are in management-related fields.

FOCUS: REGIONAL IMPACT

- 4 **Long Island's Workforce: The Next Decade**
Five faculty experts discuss the issues area businesses need to face in the next 10 years, including employee education, day care and the rising cost of living.
- 6 **School Partnerships: A True Team Effort**
Innovative educational outreach programs are turning area high school students on to higher education.
- 9 **Preparing Today's Students for Tomorrow's Jobs**
Academic offerings and outreach projects at the Harriman School are helping Stony Brook students and Long Island companies.
- 10, 19 **Alumni Profiles**
Essa Abed '77 says the rewards of being a social worker are worth the time and dedication; Debi Buglion Ahlgren '77 is playing an important role in the growth of high technology industry on Long Island; Jeffrey Sachs '74, '78 is helping to establish the first public finance system in the Soviet Union; Joseph Vasquez, Jr. '72, '74 says several Long Island companies have not yet tapped their export potential.
- 20 **Nurturing the Entrepreneurial Spirit**
Initiatives including the Interim Incubator Program are helping new companies get off the ground.
- 28 **Perspectives**
Concern for the environment is closely connected to the state of the economy, says J. R. Schubel, dean and director of the Marine Sciences Research Center.
- Pull Out • **Where to Find It**
In a special eight-page supplement, *Currents* provides a comprehensive guide to the resources offered by Stony Brook to the Long Island region.

A summary catalog of university workforce preparation and skills development resources of interest to business and industrial users is available from:

Regional Development
University at Stony Brook
Stony Brook, NY 11794-1401
(516) 632-7006



Currents, serving the extended community of the University at Stony Brook, is published monthly by the periodicals unit of the Office of University Affairs, 144 Administration, University at Stony Brook, Stony Brook, NY 11794-0605. Phone: (516) 632-6318.

Story ideas should be directed to Vicky Penner Katz, director of news services (632-6311), or to the appropriate writer as follows:

Athletics: Ken Alber, 632-6312
Calendar and Notices: TBA, 632-6318
Medicine and Health: Wendy Greenfield, 444-3665
Regional Impact/Soc. Sciences: Carole Volkman, 632-9117
Research: Sue Risoli, 632-6309
Scholarship/Performing Arts: Gila Reinstein, 632-9116
Undergraduate Affairs: Tamar Sherman, 632-6317

Coming Next Month

FOCUS

STATE OF THE UNIVERSITY

- The Marburger Decade
- Tackling Difficult Financial Issues
- Results Count in Campus Services

A one-year subscription (10 issues) is available for \$4. Please send a check payable to the University at Stony Brook to the address below.

Bulk rate postage (Bulk Permit No. 65) paid at Stony Brook, NY. Send address changes to *Currents*, 144 Administration, University at Stony Brook, Stony Brook, NY 11794-0605. Reprint permission on request. © 1990.

Editor: Patricia A. Foster
Managing Editor: Mark A. Owczarski
Designer: Grace E. Horan

The periodicals unit also publishes *Currents Fortnight*, a chronicle of upcoming events published the 15th of each month during the academic year, and "Electric Currents," a daily gazette distributed via the university's electronic mail system. Our All-In-1 address is CURRENTS.

The University at Stony Brook is an affirmative action/equal opportunity educator and employer.

Energy Conservation a High Priority as University Prepares for Winter's Cold Grip

Worries of a stormy winter ahead coupled with higher oil prices are keeping energy conservation a high priority at Stony Brook this fall.

"With oil costs escalating dramatically, it pays to be energy conscious," says Carl E. Hanes, deputy to the president for special projects, who has the figures to prove it.

"Since the university started its energy conservation program just over two years ago, petroleum and natural gas usage is down by 24.7 percent, but the cost has gone up more than 50 percent," Hanes says. Utility expenditures, even with a projected 6 percent reduction in consumption, are now expected to exceed \$35 million.

Among the energy conservation steps instituted at Stony Brook this past summer were:

- A change in the workday during July and August, with most offices operating from 7:30 a.m. to 3:30 p.m.;
- Consolidation of a broad range of campus activities and classes into selected buildings;
- Shutting off or reducing the speed of building fans on weekends and when school was not in session;
- Limiting the use of escalators at the Health Sciences Center;
- Participation in Long Island Lighting Company's (LILCO) load-shedding program that will entitle Stony Brook to rebates in exchange for reducing its power needs on heavy power usage days.

This fall, members of the campus community will receive an "Energy Use Calendar" spelling out days when all but critical buildings will be closed. And the university will again seek the cooperation of all employees in voluntarily using accrued vaca-

tion time during the holiday season, says Hanes.

"The savings in heating can be dramatic," he points out. "Last year, Long Island had some of the coldest weather during the winter break. We were fortunate in that we were able to close or limit the use of many campus buildings during that period, especially over the Christmas-to-New Year period. With the turbulence in the Middle East, such savings will be even more important this academic year," Hanes points out.

But conservation efforts won't stop with a calendar and a voluntary vacation. "We again are asking everyone to be energy conscious this fall and winter."

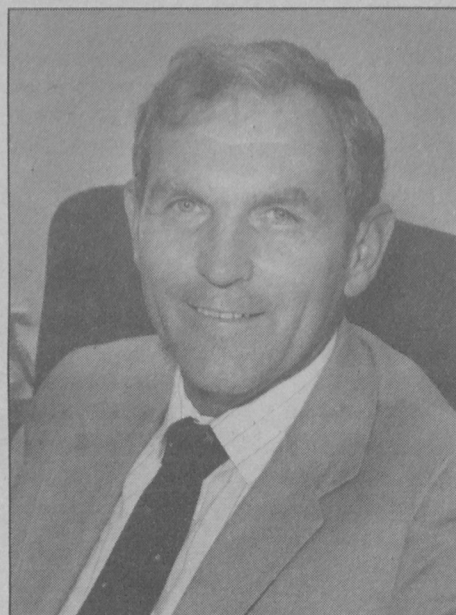
The campus is also continuing to address incorrect and broken thermostats, is developing an improved heating/cooling efficiency plan and will be monitoring its Energy Hotline (632-6631).

Plans for New Plant Moving Ahead

Plans to construct a cogeneration plant at Stony Brook are moving forward while officials here await a decision that could affect the size and scope of the project.

Since mid-August the university and a private developer, who will build and operate the cogeneration plant, have been addressing other aspects of the plan while they wait for Long Island Lighting Co. (LILCO) to firm its final list of surplus electrical energy buy-back sources.

If LILCO selects the Stony Brook facility as a supplier of excess electrical energy, an 80 megawatt plant will be built. If the university proposal is rejected, a 40 mega-



Carl E. Hanes

MAXINE HICKS

watt plant will go up, one that will provide the full electrical and thermal needs of the campus, says Carl E. Hanes, deputy to the president for special projects.

The proposal for an 80 megawatt plant was not among an initial group of surplus electrical energy purchase plans selected by LILCO in mid-August. But in notifying Stony Brook of its decision, the utility indicated that the university plan would be included in a second review to be completed this fall.

"Naturally, we were disappointed that the proposal from our developer wasn't selected in the first round," said Hanes. "It should be noted that at 80 megawatts, our proposal was one of the smaller projects submitted to LILCO. We are hopeful that once LILCO evaluates the proposals selected in the first cut, they will take another look at our proposal and include it in their surplus electrical energy purchase plan."

continued on page 21

All Bets on SEFA to Set New Record

Alan Entine is not a betting man. But the odds are he'll win if he puts his stake on the university community surpassing last year's total for the 1990 SEFA/United Way campaign that begins Tuesday, Oct. 2.

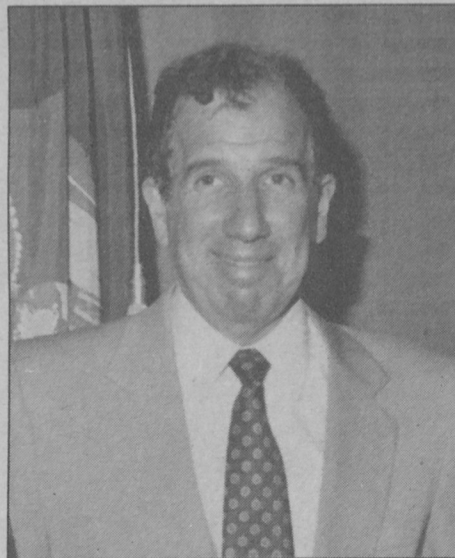
"Last year was spectacular," says Entine, manager of employee and labor relations and Stony Brook's State Employees Federated Appeal (SEFA)/United Way employee campaign coordinator. "Not only did contributions from employees exceed our original expectations, but they also set a record for Long Island."

During the 1989-90 campaign, Stony Brook employees outdistanced all other state agencies on Long Island, contributing \$79,582, a 58 percent increase over the previous year.

That figure pleased Entine and also delighted President John H. Marburger who chaired last year's Long Island SEFA effort and who next year will head the United Way of Long Island campaign. Last year, state employees on Long Island contributed \$290,393 through SEFA, exceeding a \$275,000 campaign goal.

The SEFA campaign, run in conjunction with the United Way of Long Island's annual drive, allows state employees from more than 40 governmental agencies on Long Island to support nearly 2,000 health and human service agencies in New York State, some 200 of which service the bi-county region. In most cases, contributions are made through payroll deductions.

In addition to monies raised on campus through SEFA, Research Foundation employees contributed an additional \$2,498 to United Way. Two Stony Brook affiliated organizations—Stony Brook Child Care



Alan Entine

and the University Hospital Auxiliary—were among the agencies SEFA contributors could select for funding.

In the 1989-90 SEFA campaign, campus donors contributed \$6,830 of the \$10,493 in donations and pledges that went to Stony Brook Child Care center and \$5,751 of the \$7,784 that was donated to the University Hospital Auxiliary.

"If last year is any measure, Stony Brook employees can be counted on to support the nearly 200 health and human service agencies who benefit from the campaign," says Entine, who met with pledge captains in September in advance of the campaign kickoff breakfast which will be held on Tuesday, Oct. 2 at the University Club. "I'm convinced they will meet and exceed our 1990 goal."

Stony Brook Awaits Word of New Cuts

It may be another month before Stony Brook knows whether it will have to go another round in the 1990-91 battle of the budget.

As *Currents* went to press, no action had been taken on an advisory issued on July 17 to presidents of all state-operated campuses warning them that it might be necessary to reduce 1990-91 expenditures by another one percent. If further cuts are mandated, they may not be issued until November, university officials speculate.

In June, Stony Brook announced that it would reduce course offerings, cut services, increase student fees and eliminate at least 45 positions to close a \$6 million gap created by on-going obligations and underfunding in the 1990-91 state budget. Some \$3 million in cuts were spread across academic areas and another \$1.6 million in the health sciences. The largest cuts were in administrative areas, including a 7.7 percent cut in the Office of Finance and Management, a 5.5 percent cut in the Office of Student Affairs and a 3.4 percent cut in the Office of University Affairs. The July advisory translates into another \$1.7 million in cuts for Stony Brook and \$14.5 million system-wide.

Rather than absorb the entire reduction by making additional cuts in instructional and support budgets, Stony Brook has been putting its efforts into raising additional revenue from user and special fees including an optional student health fee, mandatory lab fees for students enrolled in science and engineering courses and a mandatory graduation fee, notes Glenn Watts, vice president for finance and management.

"The campus also has used the state's Early Retirement Incentive Program to eliminate 20 positions from the 1990-91 budget. Fifteen of the 20 are part of the 45 positions which must be eliminated from the state-supported budget," Watts adds.



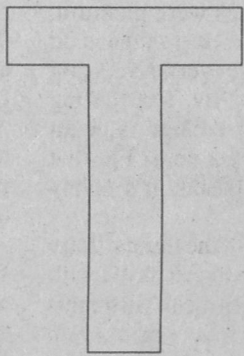
MAXINE HICKS

Blood Drive Contest Winner

Peggy Infantino, senior stenographer in the Career Development Office, is all smiles as she's handed a television set from President John H. Marburger. Infantino won the set as the top prize in a drawing for captains who turned in the best showing in the Spring Faculty and Staff Blood Drive. Other top volunteers won luncheons at the University Club, including Ray Auletta, Computing Center User Services; Barbara Grannis, University Affairs; Judy Friedlander, Purchasing; Mario Simat, Administrative Systems; Audrey Koppos, Frank Melville, Jr. Memorial Library; Scott Sieburth, Department of Chemistry; and Linda Wuss, Physical Plant. A record 248 pints were donated; the next drive will be Dec. 4.

Long Island's Workforce: The Next Decade

Five Stony Brook experts assess the challenges that lie ahead for Long Island companies and their employees



This summer, *Currents* asked five faculty experts to participate in a roundtable discussion of the workforce issues confronting Long Island in the next decade. The panel members, each representing a particular area of expertise, were:

Beverly Birns. Psychology professor and director of Child and Family Studies, Birns is an expert on the day care needs of working mothers. A past president of the Suffolk Child Care Council, she now serves as president of Stony Brook Child Care, Inc.

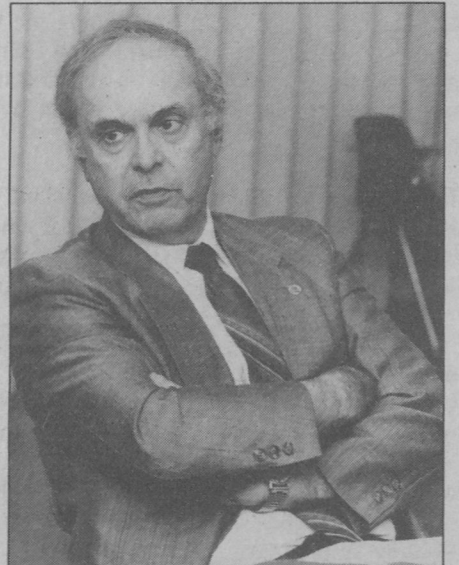
Peter Burke. A counselor at Stony Brook's Career Development Office and the university's coordinator of veterans affairs, Burke has been at Stony Brook for 10 years. During that time, he's been able to observe changes in employment and market trends.

Paul Edelson (moderator). Edelson is dean of the School of Continuing Education and director of the Continuing Education Research Center.

Lee Koppelman. Director of Stony Brook's Center for Regional Policy Studies, executive director of the Long Island Regional Planning Board and executive director of the temporary Commission on Governmental Efficiency and Effectiveness, Koppelman is supervising a series of studies that will culminate in a strategic economic development plan for Long Island. Studies include an examination of the tourism industry as well as the workforce, day care and energy needs of Long Island.

Manuel London. Director of the Center for Labor/Management Studies at the W. Averell Harriman School for Management and Policy, London is an industrial psychologist with 12 years' experience in the corporate sector. Currently, he is directing a study on employment issues of older workers.

Herewith, an edited version of the discussion.



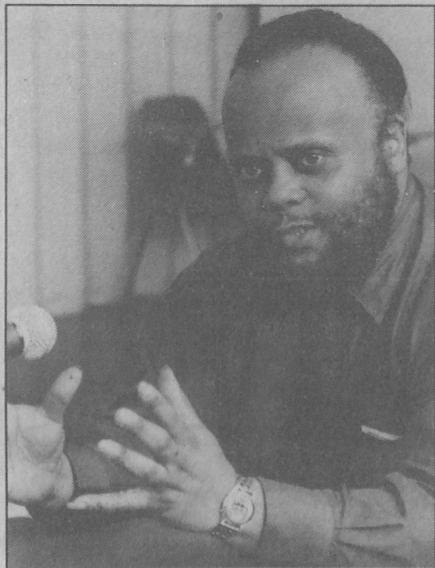
Lee Koppelman

"I would say Long Island has one of the strongest economies in the nation."



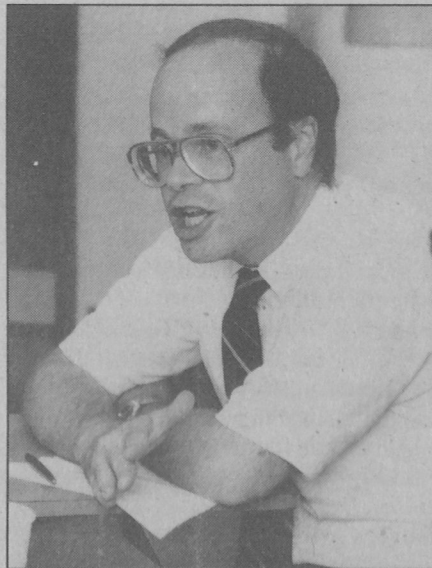
Beverly Birns

"I worry a lot about the kids that we're raising in environments that simply are not working very well."



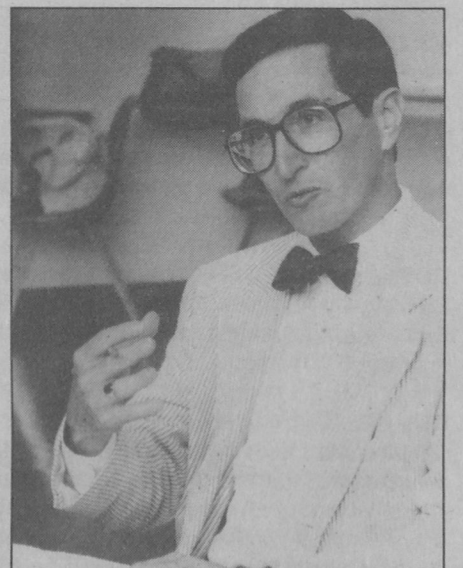
Peter Burke

"Most graduates do not want to leave Long Island. . . but they are confronted with reality."



Manuel London

"What we've been finding. . . is that Nassau and Suffolk are trying to help older workers find jobs."



PHOTOS BY SUE DOOLEY

Paul Edelson

"We are optimistic that more students will become interested in occupations that have growth opportunities on Long Island."

EDELSON: Let's begin by defining the workforce and economic issues that are emerging on Long Island as we approach the year 2000. Lee, you've just completed a study on the workforce. Please give us an overview of the situation.

KOPPELMAN: First of all, Long Island has one of the strongest economies in the nation. It is among the top 10 areas in the United States in terms of disposable per capita income, and it's been relatively recession proof in the last 40 years.

In terms of looking to the future, we do have certain soft areas which, if we don't address, will create serious problems. The real challenge is whether we can keep the economy at its high level of production. I think we can, but we'll have to address the questions of governmental services and taxation, transportation and affordable housing. We also have to look at what the universities on Long Island do in terms of their outreach to the region.

The paradox we face is that we do not have shrinking job opportunities. The issue is whether we will have the labor force at the youthful end of the scale. We're not holding on to the young, and we're not taking advantage of the old. One factor that has been positive is the employment of women. Their entry into the workforce provided a resurgence in the economy, producing more jobs than population growth. That situation accounted in a large measure for our strength.

But job discrimination still exists. We certainly haven't taken advantage of our minority population. This is unfortunate, and certainly in terms of older workers, we're wasting a fantastic skilled labor pool. If we address all these issues, we'll have the labor force.

LONDON: I think Lee reflected very nicely what we've been finding in our study of older workers. I agree that there are major problems and issues that need to be addressed and that there's potential for a rosy future on Long Island. There are tremendous resources here to draw on.

Right now, what we've been finding, and what precipitated the project we have undertaken, is that Nassau and Suffolk are trying to help older workers find jobs. In Nassau in particular, they've had problems trying to place people who have been middle managers, engineers and professionals into productive jobs. They are having a tough time finding employers who are receptive and who are flexible in trying to establish schedules that are right for them. In Suffolk, more older workers are looking for a temporary employment, such as McDonalds, where they can earn some pocket money. That kind of work is plentiful. But it's at the higher levels of employment that we're finding some problems, particularly in Nassau County.

BIRNS: I think there must be two Long Islands, Lee's Long Island and my Long Island. I am involved with social services, day care and abused kids. I am very supportive of all the new technology, certainly of medical research, but I worry a lot about the kids that we're raising in environments that simply are not working well. There are other communities across the country where it's been possible to get employer-sponsored day care. But in Suffolk County it's very difficult because there are a lot of small companies, and not one major industry. I am profoundly concerned about the workforce of the future if we're not providing adequate care for our kids.

EDELSON: We'll come back to this issue a bit later. But I'd like to move over to Peter, who sees the students Stony Brook is graduating. What are their expectations about the region and about their place in the workforce?

BURKE: Some of the expectations are realistic, goal-oriented and focused. But there are a couple of issues that concern me. I think the middle class is being pressed. Yes, you have a very affluent population, but you also have a very needy one. And the middle class, in order to maintain this lifestyle, is now having to sacrifice, to give things up.

If there were a realm of jobs, if things were plentiful, students wouldn't leave Long Island. Most graduates do not want to leave, and probably would never leave Long Island. But, they are confronted with reality. The starting salary for professionals coming out of college is about \$25,000 to start. How can you live on that here? For that reason, students have to leave Long Island. It's solely because of salary.

In terms of education, I think that one of the things Stony Brook has to do is give students the strongest skills with which to market themselves. I think academic departments have to be cognizant of what industry is telling them, even if it means changing the academic curriculum.

EDELSON: You've given us a lot of things to think about. I'd like to discuss some of the areas that students should be aware of in the next decade. For example, what is the future of Long Island's manufacturing and service sectors?

KOPPELMAN: Manufacturing has gone through a slight decline, but it is by no means out of business. It is a mistake to assume that the peace initiative or the budgetary deficits in Washington mean the end of the defense industry. But can Long Island remain competitive? Long Island manufacturing firms have a talent for research and development. The place they fall down on is actual production, and this is a national problem. We forgot how to produce.

On Long Island, I see a number of things happening. First of all, we will still maintain a defense posture; second, there is an opportunity in artificial intelligence, biomedical research and public mass transportation vis-a-vis Maglev. Long Island has been an international center for American technology for the last three-quarters of a century. We have to have a commitment to continue, and we need the will to do it. Third, the service sector has been growing and will continue to grow. The problem with the service sector is in terms of hourly rates. The pay in the service sector does not warrant the cost of living on Long Island, except when you get into the higher end of the profession, in areas such as banking and insurance. But McDonalds at \$7 an hour is not the future of Long Island.

LONDON: In regard to what Lee said about manufacturing, we have a project in the Harriman School directed by Matt Sobel that's examining computer integrated manufacturing systems on Long Island. Its purpose is to look at the extent advanced technology is being used in order to keep companies more competitive. Pertinent to the study is an assessment of the need for retraining and redeployment. I'd like to see colleges get more involved in continuing education for all ages and adult education throughout the career cycle. Corporations are starting to do this, and we need more.

BURKE: I would say the opportunities on Long Island run the gamut from financial service industry to aerospace. I would say most companies are pleased with Stony Brook students. The problems I encounter often have to do with the mind-set of students: "I live in Suffolk, the job is in Nassau. That means I have to commute. How long will it be to drive to work?" The problems of transportation are a reality, especially for people coming from a lower middle class environment. The family, which has had to finance their child's education, is now talking about a cash outlay for transportation.

BIRNS: I think one of the areas we must stay on top of is training people to be practitioners, the people who will be working with families. On the question of transportation, I have never gone to a meeting at which the issue of transportation wasn't raised. Without a car, social programs and health services are inaccessible. What are we going to do to help people have access to us?

EDELSON: Peter, you work with students about to graduate. Do they have a realistic understanding of the job market?

BURKE: Young people don't think too far ahead. When they come to college, four years down the road seems like an eternity. A lot of students just don't ask, don't investigate; they don't speak to faculty. You have to go to people who can help you market yourself. Even at the worst times, companies still hire. If a company has just laid off 3,500 people, they are still hiring in other areas. The important question is, do you qualify for the jobs they do have.

BIRNS: I'm curious to know how many young American women are going into engineering and physics. In high tech areas, women might not always see what their options are, and may not always go into these areas.

KOPPELMAN: Not only are women not entering these areas, but neither are Americans. If you eliminated Indian, Chinese, Vietnamese and Japanese students, you'd curtail most math and science programs. At Stony Brook, more women are getting into medical and dental school. In terms of business programs, medical and law school, there is a continuous increase in women; in the hard sciences, the answer is no, both for women and men.

EDELSON: I think that's an issue that, from my perspective, appears to be changing. I know that Stony Brook has strengthened collaborative relationships with area school districts. We are all optimistic that more students will become interested in occupations that have growth opportunities on Long Island.

In closing, I'd like to ask each of you for a brief statement on what you think will be the top workforce issues in the next decade.

BURKE: Because of my background as a counselor, my concerns are for people who have experienced hardships in life. I'm concerned with minority groups, women, the middle class reentering the workforce, and things the university can do to enhance marketability. We need better skills in communications—that's what companies are looking for. You can have a Ph.D., but companies need people who can communicate within the team framework. This is not something that academic departments normally focus on.

BIRNS: I worry about the state of the family. Technology is moving ahead. People work long days, then come home to dysfunctional families. I want to see the university playing a leadership role in strengthening families as it does in its ties with industries.

LONDON: Continuing education will be very important because of changing technology, changes in organizations as they restructure and focus on new markets, and an aging population that, because of economic reasons, will be staying in the workforce longer.

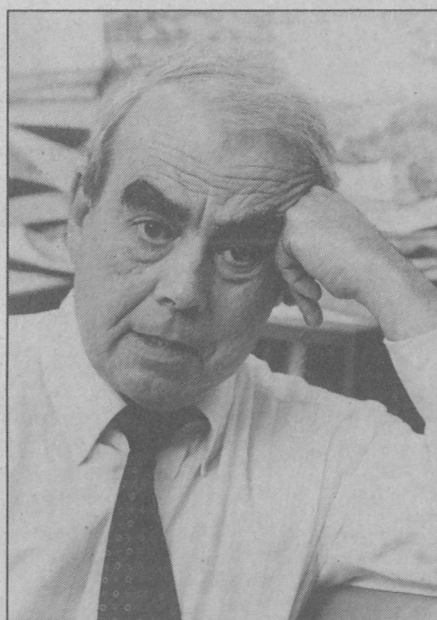
We will need continuous education and reeducation. We can participate in this effort at the university as well as in conjunction with organizations as they try to rejuvenate and develop the workforce.

KOPPELMAN: As much as I would applaud the objectives raised, I don't think Stony Brook can respond to all these needs. One of the problems is not solely economic—drugs are perhaps the number one problem, and Stony Brook is not going to solve that. It's very complex, very difficult. If we don't solve that problem, others will be insoluble as well. I agree with what I heard, but I don't want to suggest any optimism that we are going to make dramatic inroads in solving problems of the American family. Perhaps the freedom that we fought for has brought problems in terms of lack of values and standards. I am not sanguine that we are going to find solutions to these issues.

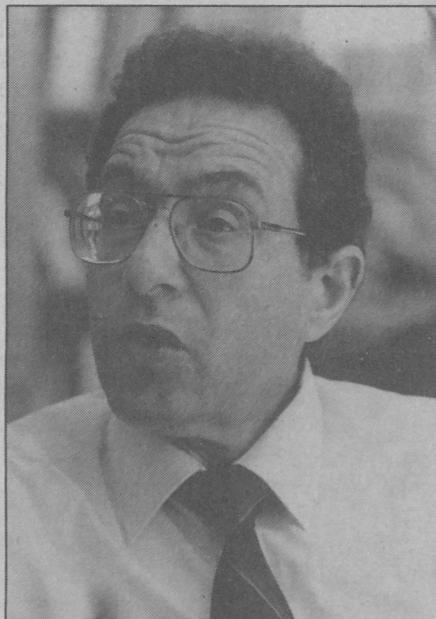
School Partnerships: A True Team Effort



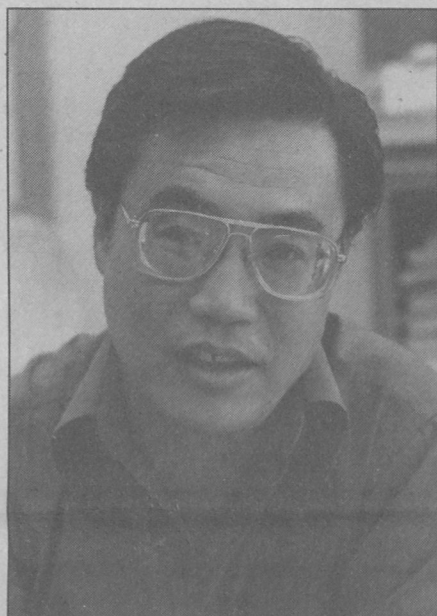
Edith Steinfeld



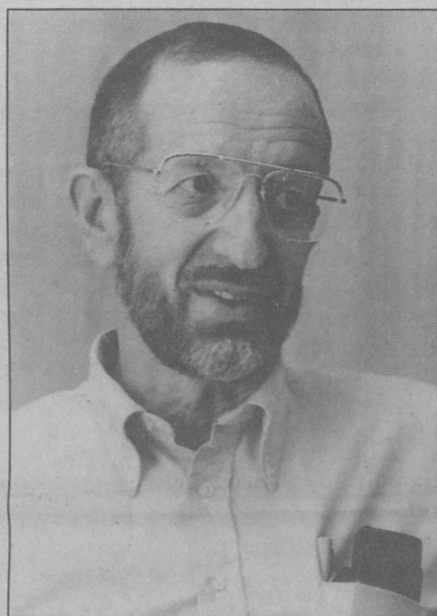
A.W. Godfrey



Eli Seifman



Thomas Liao



Les Paldy

Stony Brook senior Joe Weaver, a counselor in the two-week residential Liberty Partnerships program held on campus this summer, recalls how Tom, a ninth grader from Central Islip, couldn't stop crying.

"Everyone tried talking to him," says Weaver, who explains that Tom had a long-standing fear of being away from home. "Finally, I sat him down in a room and told him that he didn't have to stay, and that if he did stay, I couldn't guarantee he'd have a great time. But I said, 'The only thing I can promise is that if you do stay, you'll help yourself get over your fear. You're not doing this for your parents or for me. You're doing it for yourself.'"

Tom's story has a happy ending. The teenager stayed, and along with 50 other high school students from the Brentwood, Central Islip, Middle Country and Wyandanch school districts, took part in a full schedule of classes, workshops and counseling sessions, all designed to get the teens interested in staying in school.

"Liberty kids need so much love and caring," says Weaver, a biology major who will apply to medical school next year. Weaver and 20 other Stony Brook students served as counselors, teaching assistants, and jacks-of-all-trades during this year's Liberty Partnerships and Science and Technology Entry Program (STEP) programs, two of the three summer residential programs held on campus this year.

"The key to these programs is the people who are involved," says Thomas Liao, chair of the Department of Science and Technology and codirector of the STEP program. "A lot of times people miss that. They look at classes and labs, but the reason these programs are successful is that we give everyone the opportunity to work together."

Programs range from informal projects sponsored by academic departments to the staffed, formal projects funded by the New York State Department of Education, all held under the aegis of the Center for Excellence and Innovation in Education (CEIE), the Department of Technology and Society and the Center for Science, Mathematics and Technology Education (CSMTE).

These ongoing hands-on programs, with classes and

workshops taught by faculty members from several different departments, form the nucleus of Stony Brook's school partnership programs. These programs foster the academic skills of Long Island's high school students, skills that are important in developing an educated, viable workforce.

Liberty Partnerships is the newest of these programs. Now in its second year, the program provides year-round support and academic services both on campus and in the participating school districts. "All kids deserve a broad exposure to the limitless opportunities open to them," says Edith Steinfeld, codirector of the program.

Steinfeld, along with Liao, Latin professor A.W. (Bill) Godfrey, Les Paldy, director of CSMTE, and Eli Seifman, director of CEIE, are the driving force behind the school partnership programs. They come to their positions with a unique advantage: They have all worked together at Stony Brook for almost 25 years. These long-time colleagues share a commitment to turn kids on to the thrill of education.

"The unique thing about these programs is that we approach them in a true partnership arrangement," says Seifman. "School districts identify their problems, come to us, and together we decide what our focus will be."

The programs coordinated directly by CEIE are Liberty Partnerships, Teacher Opportunity Corps and Suffolk Partnerships. The Teacher Opportunity Corps (TOC) provides seminars, training and other support services to encourage minority students to enter the teaching profession. Now in its third year, TOC has served a total of 60 students.

Eighteen teachers, 11 of whom are from traditionally underrepresented groups, have been certified since the program began.

The Suffolk Partnerships program provides a full range of support projects for "at-risk" students in the Brentwood, Longwood, Patchogue-Medford and Wyandanch school districts where even the bus drivers have workshops to teach them how to deal with teens who have problems.

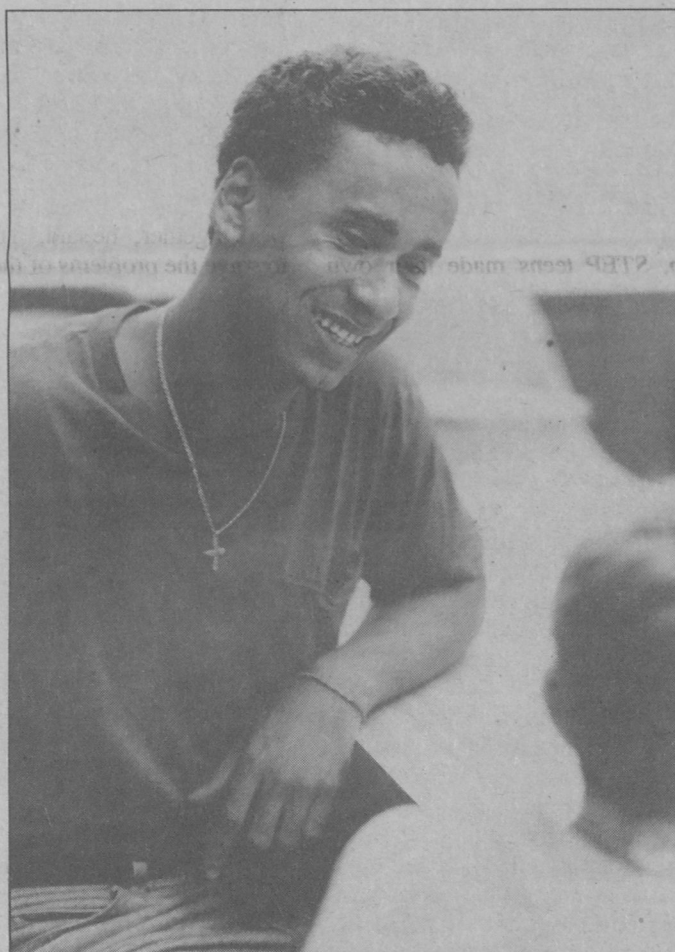
"With these kids, there's potential," says Godfrey, who directs TOC and Suffolk Partnerships. "Everybody knows there's a problem in the schools. Finger pointing doesn't do anything constructive." What we've got to do, he says, is work together to solve the problems.

"If you look at the statistics, there's a tremendous shortage of people competent enough to work in the technical, scientific and computer fields," says Liao who, with Steinfeld, directs Stony Brook's STEP program. A year-round effort, STEP works with traditionally underrepresented students interested in science, technology and health related careers. In all, more than 250 students from the Brentwood, Central Islip, Longwood, Riverhead, South Country and Wyandanch school districts are served each year.

High-achieving high school students interested in the sciences, mathematics and engineering are assisted at the Center for Science, Mathematics and Technology Education. The center, established in 1985, provides a program that includes teacher training, in-service teacher workshops, a summer residential camp for selected science students and student support services. One of the center's more visible projects is the Student Research Support Program, a series of one-day briefings and year-round faculty and lab support for teens preparing to enter any of the year's science and technology competitions.

"Our long-range goal is to improve the competitive position of the Long Island and national economy," says Paldy, who as director of the center, sees his mission as providing education to the people whose skills will attract businesses to the region.

"There are unlimited opportunities at Stony Brook," says Paldy, and his thoughts are mirrored by his colleagues, each of whom shares an enthusiasm that threatens to become infectious. "Everybody owns a bit of these programs," says Liao. "You can have the greatest design in the world, but unless you have the right people, it's not going to work. The experience and commitment all of us bring to our job is, in the final analysis, a precious commodity."



Joe Weaver

PHOTO BY SUE DOOLEY

Operation Outreach Teaches Writing The Stony Brook Way

Pat Belanoff, director of Writing Programs, has a theory about speeches and slogans such as George Bush's much-repeated campaign promise: "Read my lips, no new taxes." According to Belanoff, "most people are taught to write the same way speech writers write; they anticipate what the audience—teacher, boss or client—wants to read. But writing should not be a 'performance.' Instead, it should be a more personal way of communicating, of expressing what you believe, think, feel or sense."

To that end, Belanoff and Alice Robertson, associate director of Writing Programs, have started a project called "Operation Outreach," in which they visit Long Island high schools to show how writing is taught at Stony Brook—as an expression of one's thoughts.

Through workshops and discussions, Belanoff and Robertson are working with teachers to develop high school writing centers where students can work with peer tutors. This arrangement would free teachers to spend more

class time helping students link their thinking and writing skills. According to Robertson, high school seniors will also be invited to visit Stony Brook and take part in freshman writing courses.

Last year, Belanoff and Robertson conducted workshops at Central Islip High School and Walt Whitman High School in Huntington. During the workshops, a number of teachers said they were concerned about having to prepare students for Regents and SAT exams at the expense of cultivating solid writing skills. As a result, college freshmen are often unprepared to express independent thought in writing.

While Operation Outreach is just in the beginning stages, Belanoff and Robertson hope to start a Long Island consortium. Through the consortium, Stony Brook and Long Island high schools could share the responsibility of teaching students to write in order to express themselves, instead of "performing" to please others.

Area High School Students Get A First-Hand Look at Maglev Technology

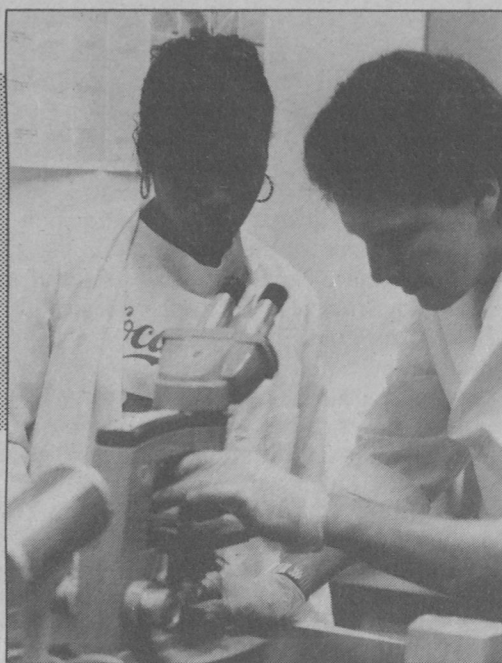
More than 100 Long Island high school students at this summer's residential STEP program participated in academic classes and a series of hands-on workshops. Among the workshops was teacher Henry Harms' class in Maglev technology.

Maglev, an acronym for magnetic levitation, is a technology that, experts say, will provide the high-speed transportation of the future. Currently, the Center for Regional Policy Studies, headed by Lee Koppelman, is coordinating an effort to fund research and development for Maglev on Long Island.

In Harms' workshop, STEP teens made their own miniature Maglev cars. Constructed of Styrofoam chassis

with magnets on the bottom, the finished vehicles were levitated on a 16-foot length of track and propelled along by fan power. The teens tested how far the cars zoomed along the track and, using stopwatches, calculated the mileage per hour.

"This project gives students an excellent understanding of an up-to-date technology," said Harms, who added that an important part of the workshop was making sure everyone helped each other. "Everything is becoming so complex, that it's important for people to understand how to work together," he said. "That's the only way we'll be able to solve the problems of the world."



Internships Give Students an Upper Hand in The Job Market

Internships and student projects give businesses, government agencies and nonprofit organizations the extra set of hands they often need—while providing students with work experience necessary in today's competitive business world.

"My internship makes me more marketable," says Daniel Rothman, a senior who will be starting his fifth year in the combined bachelor's/master's degree program at the W. Averell Harriman School for Management and Policy.

Rothman, like many student interns, spent his summer employed at a company that needed extra help. He worked in the finance department of Applied Digital Data Systems, a computer manufacturer in Hauppauge, and continued part-time during the school year. "I can go anywhere now and tell them what I've done," says Rothman. "That is an excellent advantage."

Rothman's employment was part of an internship service at Harriman directed by instructor Joan Weinstein. "These are not just summer jobs," says Weinstein. "The idea is to give students the opportunity to experience the kinds of work available to them."

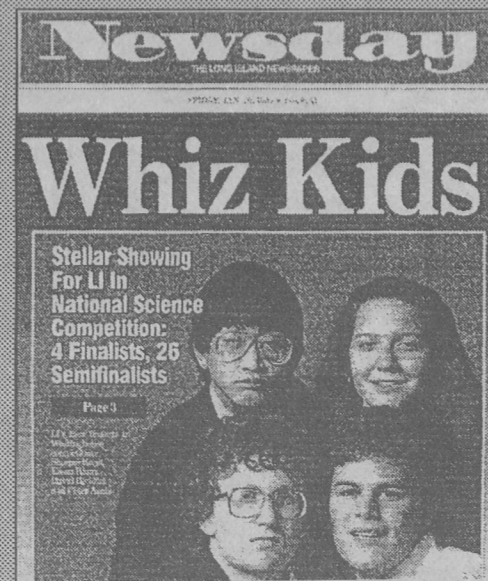
Also offered at Harriman is a student consulting project required for first year graduate students. Working in teams of three or four students each, the students meet with a company or nonprofit agency and formulate a project for the year. Among last year's activities were a membership survey for the Great South Bay Audubon Society, a management information system at the Museums at Stony Brook and development of a court watch program at the

Nassau/Suffolk Law Service Committee. "This is great practical experience for the students," says Harriman assistant professor Anne Preston, who directs the program. "The employers are always impressed with the competency of the students."

In the Department of Engineering, student competency is also given high marks for the senior design projects required of all undergraduates. Last year, Richard Tutunjian and his classmate, Mark Kaplan, redesigned a nail feeding system for the Clampnailer, a machine used in making picture frames manufactured at the Pistorius Machine Company in Hauppauge. "We looked at a lot of alternatives before we came up with a design they could work with," says Tutunjian. "Because of our work, they know what they can and cannot do with the machine."

"Internships give students a good opportunity to develop their work skills," says Debra Swoboda, internship coordinator at the Center for Academic Advising. Swoboda's office provides internships for junior and senior undergraduate students, and according to Swoboda, they place between 25 to 50 students each semester.

The *Newsday* Front Page That Never Was



On the bulletin board in the office of the Center for Science, Mathematics and Technology Education is the original front page of the Jan. 26, 1990 issue of *Newsday*. The headline reads "WHIZ KIDS," and pictured are the four Long Island high school students who won top honors in the prestigious Westinghouse Talent Search competition.

Unfortunately, the front page never ran. After it was printed, an Avianca airplane crashed on Long Island's north shore, and *Newsday* rushed a new front page right off the press.

Newsday sent the original page to CSMTE because they knew how important it was to director Les Paldy and his staff: Two of the four winners—David Ben Zvi and Shinpei Kuga, both students at Ward Melville High School in Setauket—participated in the center's Student Research Support Program.

STEP Scholarship Winners

Two students in Stony Brook's STEP program are among the 15 state-wide winners of this year's New York State Science and Technology Merit Awards, which provide \$1,000-a-year scholarships for four years. The students, Michael Mahabeer of Central Islip and Jose Santana of Brentwood, will be attending New York Institute of Technology and the State University of New York at Buffalo respectively. Both young men plan to study architecture.

Supporting Long Island's Workforce

continued from page 1
retirees moving away.

What all of this means is that economic growth on Long Island will be hamstrung in the years ahead. The answer, according to Koppelman's report, lies in solving the problems that keep people away, and providing the education and skills that will give them a good reason to stay. "The ability of Long Island's institutions of higher education to respond promptly and efficiently will determine to what extent the Long Island economy can satisfy the future labor force needs," according to the report.

At Stony Brook, several activities are tackling Long Island's problems with a double-edged sword: programs designed to foster the economic growth and well-being of the region and education that provide the skills important in today's fast-changing business world. As Long Island begins to diversify into the high-tech areas essential for prosperity, one of the university's goals is to turn out graduates willing and able to live and work on Long Island.

Among the activities at Stony Brook are:

Center for Biotechnology. One of ten state centers for advanced technology, the center has stimulated the growth of Long Island as a biotechnology center by supporting basic research with commercial potential. Since its establishment in 1983, more than half of the campus' 58 invention disclosures in biotechnology have been licensed to the private sector, more than double the SUNY-wide success rate of 20 percent. This year, the center will be home to the newly-formed New York Biotechnology Association, a trade organization established to advance the region's biotechnology industry.

Center for Education on Substance Abuse. One of the School of Continuing Education's (CED) many offerings, this state-funded center is designed to nurture the well-being of Long Island employees. It sponsors workshops and other programs to help businesses deal with alcohol and drug abuse problems on the job.

Center for Regional Policy Studies. A regional "think tank" headed by Koppelman, executive director of the Long Island Regional Planning Board, the center is conducting a number of studies for a projected regional economic development plan for Long Island. The center is also coordinating funding efforts to establish a research effort to

develop Maglev high-speed trains on Long Island.

Computer Technology. The next wave in the computer revolution will be software based on the use of graphics and images, including computer simulation and computer-aided design. Computer Science Professor Arie Kaufman's work in three-dimensional imaging has produced a number of patents as well as a partnership with MediCAD, a private company in Setauket that has developed a desktop surgical simulator.

Degree Programs. Stony Brook offers master's and doctoral degree programs in the arts and sciences, engineering, management, marine sciences and health professions, complementing its undergraduate offerings in these fields. Unique to Long Island is the Department of Technology and Society, which integrates liberal arts with engineering and scientific methods. This year, a bachelor's degree program in information systems was added to the computer science curriculum.

Economic Research Bureau. Devoted to the study of critical issues in the economic development of Long Island and the state, the bureau is directed by Harriman Professor Glen Yago, co-author of "Project 2000," a 1986 series of reports that detailed the social and economic problems facing Long Island in the years ahead.

EMPACT. The Stony Brook/Grumman Corp./Brookhaven National Laboratory collaboration for a major component of the federal Superconducting Supercollider project could mean multimillion dollar contracts for high-



Stony Brook has long supported Long Island's high technology industry.

tech companies on Long Island and around the state.

The Long Island High Technology Incubator. Stony Brook's interim incubator program will be expanded with a permanent 40,000 square foot facility designed to nurture fledgling companies in technologies vital to Long Island.

Mineral Physics Institute. The institute, currently seeking funding from the National Science Foundation, is building on the university's Center for High Pressure Research to develop and test materials for high-tech applications—a field of importance to Long Island's increasingly sophisticated industrial base.

Regional Development Task Force. Established by Provost Tilden Edelstein at the request of President John H. Marburger, the task force is composed of faculty chairs and deans who will explore ways the university can foster the economic development of Long Island. Chaired by Marine Sciences Research Center Dean J. R. Schubel, the task force ended its first year by inspiring creation of an Environmental-Economic Roundtable to help ensure a balance between business development and environmental concerns.

The School of Continuing Education (CED). In addition to providing year-round courses designed for part time students, CED offers a number of programs for business people. Included are graduate certificate programs in waste management, occupational health and safety and Long Island regional studies; the Professional Management and Human Resources Development Program, with seminars and professional licensing courses, and the Center for Corporate Continuing Education and Development, which provides customized training programs for the business community.

School Partnerships. Because workforce preparation begins before college, Stony Brook coordinates a variety of support programs with public schools. Included are programs designed for at-risk, low income and minority students as well as academic support services for high-achieving teens.

Small Business Development Center (SBDC). One of 19 centers located on campuses throughout the state, SBDC counsels prospective and current entrepreneurs, helping them determine whether they can turn their good ideas into profitable ventures.

Stony Brook Day Care. A network of four facilities for children of students and staff, the program provides a model for businesses seeking to address this need, a vital one if Long Island is to recruit and keep talented workers.

Waste Management Institute. Created to study the issues of waste disposal and recycling, the institute, part of the Marine Sciences Research Center, is pioneering the development of construction blocks made from incineration ash. The institute also contributed to a tri-state management plan to manage floatable wastes on the regions' beaches.

The Downeaster Alexa

Singer Billy Joel's ode to Long Island's East End baymen strikes a familiar chord to the Marine Sciences Research Center (MSRC). Scientists at the Living Marine Resources Institute (LIMRI) are conducting research designed to protect Long Island's inshore fish and shellfish resources—and the community of baymen who depend on the coastal waters for a living.

Among the issues being tackled by LIMRI are the presence of contaminants in striped bass and other fishes, the potential development of the coastal fringe, and the decline of a number of key fish and shellfish species.

Clams: One of the problems is the overharvesting of hard clams in Great South Bay, a situation that contributed to a catastrophic decline of the species in the late 1970s. Faculty member Bob Cerrato has been studying the spatial and temporal distribution of hard clams in the bay and how the population is affected by the environment. Understanding the conditions conducive to clam growth will assist Long Island's shellfish managers in designing programs to rebuild the stocks of the shellfish.

Brown Tide: Research is also continuing into the causes of brown tide, the devastating algal bloom that virtually removed the bay scallop—the most important "money crop" of East End baymen—from Long Island waters. Researchers have identified a number of substances that produce, in cultured samples of the brown tide organism, the same explosive growth rates observed in the field. Studies are planned to verify that these compounds are found in waters subjected to brown tide, and to determine if their presence can be attributed to rainfall runoff.

Bay Scallops: Following the near-extirpation of Peconic Bay scallops by the brown tide in the mid 1980s, attempts have been made to reestablish the organism through transplants of hatchery-reared juvenile scallops. Assistant professor Monica Bricelj is leading an investigation into the role of eelgrass in providing young scallops refuge from predators. Eventual reestablishment of bay scallop populations may hinge on expanding the transplant programs, barring any sustained recurrence of the brown tide. Lessons learned at LIMRI will help guide the design and operation of future scallop transplant projects.

Shellfish Closures: In cooperation with the State Department of Environmental Protection and the New York Sea Grant Program, MSRC is examining ways to improve the methods used to conduct sanitary surveys of shellfish-growing waters. Contamination from storm water runoff has closed thousands of acres of bay bottom around Long Island and in the Hudson River, with obvious impacts on the community of baymen. While the need to protect the public from tainted shellfish is a paramount concern, alternative sampling approaches and protocols might result in the opening of additional beds to harvesting without compromising public health.

"LIMRI and MSRC are working to assist baymen as well as federal, state and local fishery managers to protect and conserve the natural bounty and heritage of our local waters," says LIMRI director William Wise. "We'd like our local waters to continue to provide the economic, cultural and recreational benefits New Yorkers have long enjoyed."

Preparing Today's Students for Tomorrow's Jobs

By Carole Volkman

Providing students with the flexibility and skills they need for today's changing workplace is the goal of both undergraduate and graduate programs at the W. Averell Harriman School for Management and Policy.

"We prepare students for jobs," says Gerrit Wolf, dean of the Harriman School. "Jobs in the 1990s will require students to take the initiative for achieving objectives. Our programs are designed to fit students into the workforce of the future, where people will have to be smarter. At Harriman, we focus on making people smarter in a practical way."

According to Harriman graduates, Wolf's assessment is correct. "I was always surrounded by people who were very interesting and very goal oriented," says Sharon Eisenberg, a Great Neck clothing designer who says she started her company, Bear Your Body, with the impetus she received from Wolf. "He taught me how to focus on one niche in a market," says Eisenberg, who targets her hand-painted clothing to homemakers and young children.

In fact, Eisenberg's enthusiasm is shared by Harriman alumni who have gone into professions that run the gamut from senior financial analyst at Harper and Row to vice president of Brooklyn College.

"Harriman is a great place to be," says Stony Brook graduate Sal Trifiletti, vice president of Citibank/Citicorp. Trifiletti is a member of the Harriman advisory board, a group composed of 30 of Long Island's community leaders. "Harriman provides just the right amount of flexibility needed to give students a wide choice of career options," he says.

Harriman's diverse academic options are considered

unusual for a management school. Under Wolf's direction, Harriman, formerly a school for policy studies, expanded to include the business and nonprofit sectors as well. Within each area are faculty members expert in the specializations offered to graduate students: labor/management, decision sciences, economics and finance.

Harriman's undergraduate management program began in 1988, and currently serves 200 full-time upper division students and 50 freshmen each year. The undergraduate program is liberal arts oriented, focusing on a broad-based education. "It's our feeling that a student will have more success with our program than with one specialized major," says Wolf. "In the long run, careers are changing, and people must be equipped to deal with international competitiveness and changes in the workplace."

At Harriman, students and staff stay in touch with the Long Island business community. Faculty members belong to regional organizations—the Regional Economic Development Council, Long Island Association and more—and a number of studies are underway to help foster the economic development of Long Island.

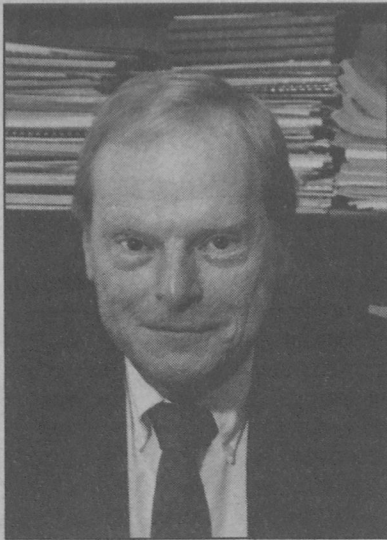
Among the studies is Harriman Professor Matt Sobel's look at the use of computer integrated manufacturing systems on Long Island. The systems, designed to keep track of all phases of a company's activities, have been shown to help streamline operations. Sobel's study, funded by the state Urban Development Corp., will assist the state in determining ways it can help companies establish this new technology.

"Management schools benefit from having a close relationship with the local business community," says Wolf. "It's important to know what problems businesses face so we can better prepare students. We can work on projects that will help solve those problems."

Included in the school's current projects is an executive training center now under construction. The center will provide a state-of-the-art classroom for ongoing courses, lectures and workshops.

Upcoming workshops will tackle such issues as quality improvement and strategic planning, and Wolf says that most educational outreach efforts will focus on small and medium businesses. "Given the diversity in the economy today, it's important for businesses to find new market niches," he says.

"We'll help them with the problems they face."



Gerrit Wolf

MAXINE HICKS



Manuel London (left) is conducting a study to examine the implications of hiring older employees in the workforce. Working with him are graduate students Kristen Ruais (center) and Anna Soukas.

After You Have the Job: Trying to Find Affordable Housing

The lack of affordable housing, long recognized as one of the major problems in keeping and recruiting a workforce in the region, is being tackled by the Long Island Housing Partnership, a two-year-old nonprofit consortium located at the Harriman School.

Headed by former Suffolk County legislator James Morgo, the partnership is made up of Long Island business, religious, labor, education and professional leaders. President John H. Marburger is a member of the group.

"The partnership was established because the lack of affordable homes for entry-level workers is having a negative impact on the Long Island economy," says Morgo, whose task is to develop and promote low-cost housing. "Without workers entering the bottom of the salary scale, businesses will have to move elsewhere because they just won't have the workforce," he says. In addition to young homeowners, the partnership also focuses on housing for older people and the poor.

So far, the organization has constructed 11 single low-cost family homes in Islip. Construction of 42 additional homes began last winter, and 600 units for older people are on the drawing board. Also in the works is a series of eight duplexes and 10 single family homes, all to be located in the Islip area.

According to Morgo, the partnership's location at Stony Brook is a symbiotic one, both his organization and the university sharing data, expertise and student talent. Last summer, Harriman graduate intern John Cuda served as the partnership's program assistant. This semester, two School of Social Welfare interns will provide support services to a number of new homeowners.

"I grew up on Long Island and saw the lack of affordable housing here," says Cuda. "I feel good about doing something to help solve the problem, because it's an issue we cannot overlook."

The Workforce's Best Kept Secret: Older Workers

Long Island's birth rates are down and the numbers of older people are up: A U.S. Department of Labor study shows that men and women over 55 years of age will be the fastest-growing segment of the labor force by the end of the century.

How do these older workers fare in today's labor market? To find out, and to sensitize employers to the advantages of hiring older workers, Harriman Professor Manuel London has undertaken a wide-ranging study.

With the help of several teams of researchers, including graduate students and senior citizens, he is conducting a survey of employers across Long Island to find out how they feel about older workers. The survey, a multi-page questionnaire, is being mailed to 4,500 companies and administered in person to an additional 100 firms. Questions consider both statistics and attitudes, for example, "Approximately what percent of your total Long Island workforce is over the age 55," and, "Please list several problems that you feel are more closely associated with employing older workers (55 or

over) than younger workers."

The project, carried out by London in conjunction with the Nassau County Department of Senior Citizen Affairs, the Suffolk County Department of the Aging and the Long Island Association, is being funded by the State Urban Development Corp. through the Regional Economic Development Partnership Program.

The study will consist of three parts: the survey and analysis, support groups and other experimental support services and a job fair scheduled for the spring.

In all, London expects the project to help both employers and the older workers of Long Island. Companies will learn about the value of hiring senior citizens, whose demonstrated reliability, flexibility and high performance make them valuable employees. In addition, companies can learn how to implement job sharing, part-time schedules, mentor systems and other creative alternatives to the standard full-time track, making it easier for older workers to find and keep jobs.

Seeing Results of Hard Work

Essa J. Abed '77

Essa J. Abed, program coordinator at the Graham-Windham Childcare Agency, is concerned about what he sees happening to the social work profession.

"We're not turning out social workers in the quantity that we need," he says, adding that people entering the field seem to be avoiding the hands-on work that's solving today's inner city problems.

Abed is apparently the exception to the rule. A journalism major as an undergraduate, Abed switched career goals after a brief tour in the Air Force, where he was trained to be a mental health specialist. "I liked the work," he says.

Abed also likes the progress he's making at his storefront office, called the Neighborhood Family Service Center. Established by Graham-Windham in 1984, the center is located in the Crown Heights section of Brooklyn, an area with pockets of crime, drugs, poverty and the tensions caused by an influx of immigrant groups. It's an area in transition and one that's chronically underserved by social welfare agencies.

Abed's job is to keep neighborhood families from being torn apart. Substance abusers, poor families, the unemployed, abused children and crack babies are helped with a variety of social services—counseling, advocacy, medical assistance, home visits and more—all designed to attack the problems that lead to unrelenting pressures in the home.

"A lot of people don't want to work in settings like this," says Abed. "They want to work in clinics or have patients come to them. They don't want to work with the poor, the struggling or the depressed."

In Crown Heights, Abed sees it all. But, he says, the rewarding aspect of his job is an important one—he's helping people who would not be served without a neighborhood center they could trust.

"A lot of people . . . want to work in clinics or have patients come to them. They don't want to work with the poor, the struggling or the depressed."

In his spare time, Abed conducts workshops, writes for professional journals and lectures at Columbia University. He also has worked as a caseworker for the Salvation Army and counseled Vietnam veterans.

He credits the School of Social Welfare for this ability to wear many hats. "Most schools try to keep you on one track," he says. "At Stony Brook, the curriculum was flexible and we were encouraged to look into a number of options in the field. That's why I'm able to do all these things."

Abed, who lives in his hometown of Long Beach, NY, was recently appointed to the North American Commission on Chemical Dependency and Child Welfare, part of the prestigious Child Welfare League of America.

In the meantime, Abed is looking forward to increasing his staff. Two more master's degree social workers will be added this fall, and a new joint project with the Board of Education will provide on-site and at-home services for kids with problems in school.

"Social work is a noble profession, an exciting profession and a good, hard-working profession," says Abed. "You see a lot of horrifying things, but you also see the results of your work." What keeps him going, says Abed, is that he gets a chance to work with a community in need. "It's a very gratifying life."



Essa J. Abed

Long Island's High Tech Advocate

Debi Buglion Ahlgren '77



Debi Buglion Ahlgren

"Visionary" is one of Debi Buglion Ahlgren's favorite words, and with good reason.

Ahlgren is a bit of a visionary herself. She helps those with ideas for new technologies turn dreams into reality. As senior partner and co-founder of Friedman-Ahlgren Associates, Inc., a marketing and communications firm specializing in electronics and high-technology clients, Ahlgren believes in technology's power to shape our world. Her client roster includes such industry giants as Hewlett-Packard and Tektronix, as well as smaller companies based locally. A native Long Islander and Stony Brook graduate, she's a staunch advocate of the region's potential to become a high-tech center.

"Providing a pair of binoculars" is how Ahlgren describes the services her firm provides. "You need vision to bring a good idea to fruition," she says. Friedman-Ahlgren encourages that vision by identifying a market for their clients' products and helping them position the product in the marketplace.

The market for Ahlgren's own talents was not quite the one she'd originally planned for. After graduation, a shortage of jobs in the field of biology, her major at Stony Brook, led her to work for a company about to launch a microprocessor-based product. It was the late 1970s, the dawn of a revolution in electronics, and Ahlgren never looked back.

"The field was growing quickly back then," she recalls, "and it got really competitive. The way you had to win your orders became more and more a matter of presentation, and that's what marketing is." She and partner Dan Friedman formed their own company in 1988, with offices in Huntington and San Francisco.

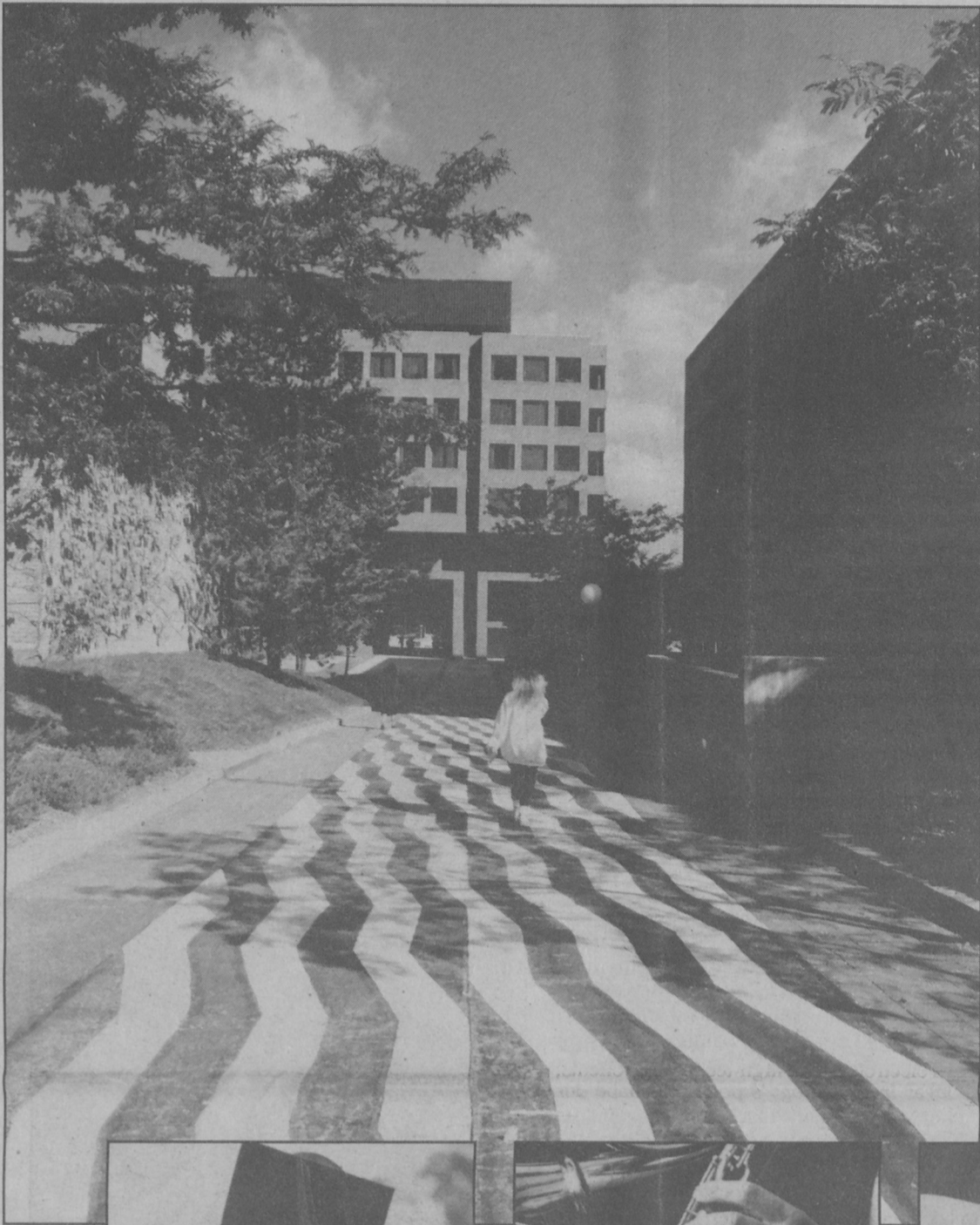
They remain committed to Long Island and its economy. "We have the intellectual and environmental climate here that creates every opportunity the West Coast has to offer, except earthquakes," Ahlgren says. "But we can't hang everything on one technology like Maglev. We need computer sciences, biotechnology and an active neural network effort. Long Island has to build small, healthy companies that are providing solutions to the market's problems."

Ahlgren shares her success with husband Larry, a 1979 Stony Brook alumnus, and son Rand Matthew. "As a manager for Canon USA's semiconductor equipment group, Larry's knowledge of that industry and its chemical and materials aspects has been a phenomenal resource for me," she notes. "Sometimes we're off speaking our own language together."

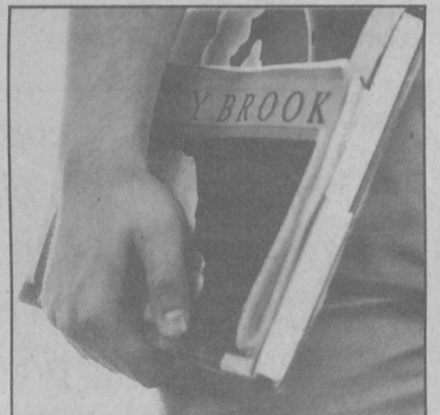
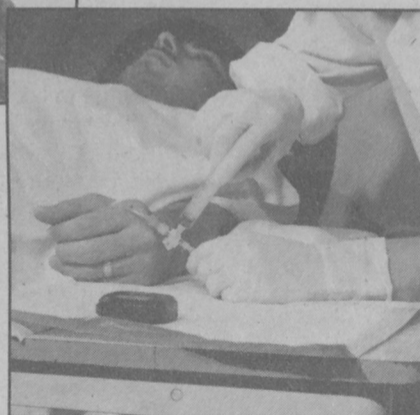
An alumni association board member and avid runner, Ahlgren is organizing the 1-Mile Fun Run and 5K Run for Scholarships for Homecoming 1990 Oct. 14. "It'll bring out the competitive spirit in us," she says, "and it's a good opportunity for everyone to relax and mingle."

"We can't hang everything on one technology like Maglev. We need computer sciences, biotechnology, an active neural network effort. Long Island has to build small, healthy companies that are providing solutions to the market's problems."

WHERE TO FIND IT

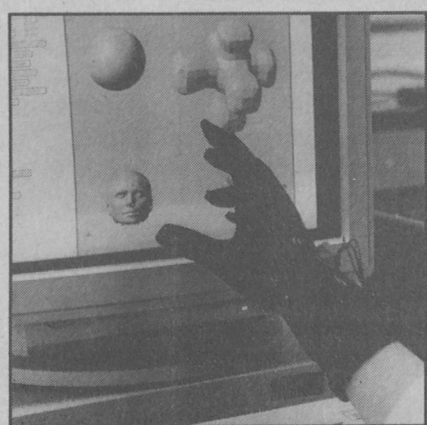


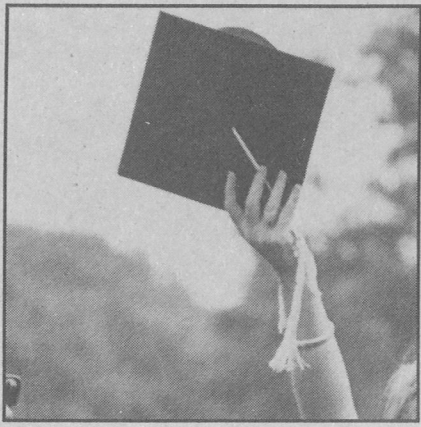
A Guide to Resources at the University at Stony Brook 1990-91



- EDUCATIONAL OPPORTUNITIES
- CULTURAL RESOURCES
- HEALTH CARE
- SCHOOL PARTNERSHIPS
- CORPORATE PARTNERSHIPS
- NONCREDIT OPPORTUNITIES
- RESEARCH CENTERS

Compiled as a service
to the Long Island
community by the
Office of University Affairs,
University at Stony Brook,
144 Administration,
Stony Brook, NY
11794-0605.
Phone: (516) 632-6310.





EDUCATIONAL OPPORTUNITIES

A challenging education at reasonable cost

Undergraduate Education. Stony Brook offers 47 majors and 42 minors through the College of Arts and Sciences, College of Engineering and Applied Sciences, Health Sciences Center and W. Averell Harriman School for Management and Policy. They include arts, humanities, sciences, professional and preprofessional courses of study. The Health Sciences Center offers baccalaureate programs in nursing, social welfare and allied health professions. Call: Office Undergraduate of Admissions, 632-6868.

Collegiate Science and Technology Entry Program (C-STEP). In order to increase numbers of underrepresented and low-income college students pursuing degrees in scientific, technological and health-related fields, offers tutoring, financial aid counseling, internships and assistance in finding summer and permanent employment. Call: Department of Technology and Society, 632-8773.

Combined Bachelor's/Master's Degree Programs. Enables students to enroll in programs that award both bachelor's and master's degrees in five years. Call: Office of Undergraduate Admissions, 632-6888.

Educational Opportunity Program. Provides access to the university for state residents who are educationally and economically disadvantaged and have the potential to succeed academically as undergraduates. Priority is given to applicants from families characterized by educational, economic and cultural disadvantage. Call: 632-7091.

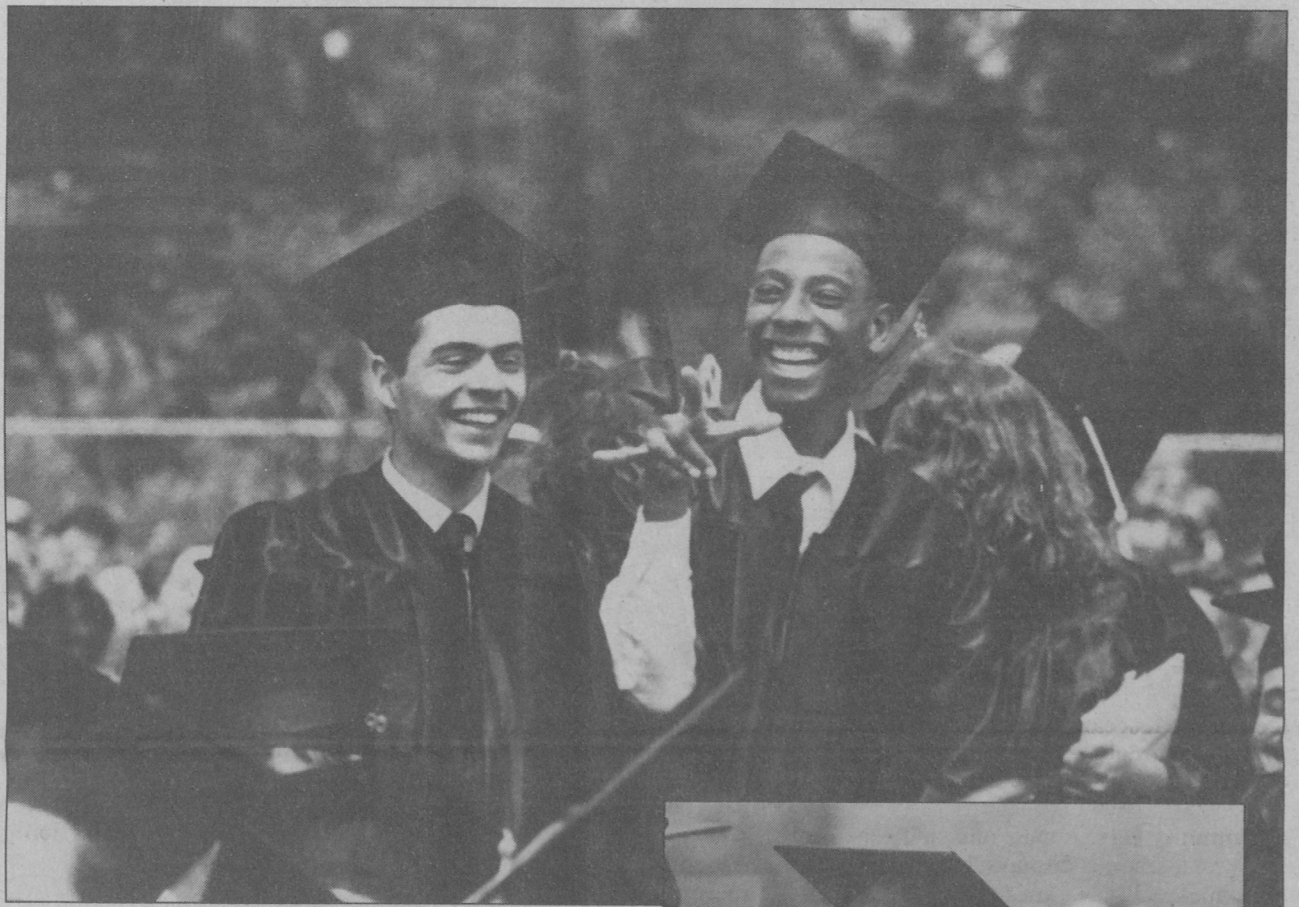
Financial Aid. Grants, loans and campus employment are available to help defray cost of attendance. To apply: complete a current Financial Aid Form (FAF-New York State specific) and a Stony Brook institutional application. Call: Office of Financial Aid and Student Employment, 632-6840.

Graduate Education. Stony Brook offers graduate degrees through the College of Arts and Sciences, College of Engineering and Applied Sciences, W. Averell Harriman School for Management and Policy, Marine Sciences Research Center, School of Continuing Education, and the professional schools of the Health Sciences Center. Assistance is available in the form of scholarships, teaching assistantships, research assistantships and fellowship programs. Call: 632-7040.

Health Care Management. Advanced New York State certificate program for health care professionals. Call: W. Averell Harriman School for Management and Policy, 632-7180.

Health Sciences Center. Provides opportunities in both laboratory and clinical aspects of health care. Stony Brook's five schools in the health sciences are Allied Health Professions, Dental Medicine, Medicine, Nursing and Social Welfare. Call: 444-2111.

Labor/Management Studies. Advanced certificate program for public and private sector managers, industrial relations specialists and union representatives. Offers comprehensive understanding of labor relations and management and strengthens analytical and practical skills. Call: Center for Labor/Management Studies, 632-7770.



Mentor Program. Pairs students, particularly those in underrepresented groups, with university faculty, administrators and staff who share their career, academic and advising needs. Call: 632-7090.

Minority Research Apprentice Program. Summer program for juniors and seniors from traditionally underrepresented groups who serve as apprentice researchers under the direction of faculty from the economics, political science and psychology departments. Call: 632-6998.

Off-Campus Graduate Courses. Offered on space-available basis at various Long Island sites Call: 632-7050.

School of Continuing Education. Serves part-time evening students studying at the graduate level. Offers a variety of degree programs, including Master of Arts in Teaching Social Studies, Master of Arts in Liberal Studies, and Master of Arts in Professional Studies. Also offered are advanced graduate certificate programs in Long Island Regional Studies, Waste Management, Occupational Health and Safety and Coaching, as well as a variety of non-credit professional licensing programs. Call: 632-7050.

Summer Session. Offers a wide selection of undergraduate and graduate courses during the day and evening hours. Call: 632-7070.



PHOTOS BY MAXINE HICKS

Teacher Opportunity Corps. Encourages college students from traditionally underrepresented groups to become teachers and trains them to work effectively with students with academic problems. Call: 632-6546.

Undergraduate Evening Program. Offers a wide selection of courses for professional development, personal enrichment and academic credit. A free catalog is available. Call: 632-7080.

Young Scholars Program. Provides opportunity for academically-talented high school students to enroll at Stony Brook for college credit in up to 30 courses. (See listing in School Partnerships section.)



CULTURAL RESOURCES

Offerings as diverse as Long Island itself

Art Galleries. The University Art Gallery features professional artists exhibits throughout the year, Tuesdays through Saturdays from noon to 4:00 p.m. and one hour before Staller Center performances. Call: 632-7240. The Stony Brook Union Art Gallery shows exhibits by student and local artists. Call: 632-6822. The Frank Melville, Jr. Memorial Library Art Galleria features student exhibits throughout the year. Hours to be announced. Call: 632-7240.

Bach Aria Group Festival and Institute. Brings outstanding young performers together with Bach specialists and leading interpreters of the Baroque style for two weeks of master classes, rehearsals and a rich menu of public performances of solo, chamber, instrumental and vocal works. Call: 632-7239.

Center for Italian Studies. Aims to increase appreciation of Italian-American contributions to the United States and Italy's contributions to Western civilization. Sponsors lectures, theatrical presentations, concerts, films and symposia. Also sponsors weeknight and Saturday morning classes in Italian. Call: 632-7440.

Center for Korean Studies. Aims to deepen understanding of Korean culture in the United States and to support the university's program in Korean Studies. Call: 632-7314.

Community Day. Annual university open house, held in the spring, features displays, lectures, activities and tours of campus facilities. Date to be announced. Call: Office of Conferences and Special Events, 632-6320.

Conferences. University facilities are available for one-day and multi-day conferences. Range of conference services is provided, including: housing, budget development, menu planning, preregistration activities and on-site registration. Call: Office of Conferences and Special Events, 632-6320.

Currents. Stony Brook's monthly newspaper/magazine carries an extensive calendar of events taking place on campus as well as news and feature stories about the university. *Currents* is available at no charge at campus newsstands. Subscription is \$4 a year. Call: University News Services, 632-6318.

Distinguished Lecture Series. Free lecture series sponsored by Office of the Provost and *Newsday* brings to the Staller Center six prominent speakers in 1990-91: the Dalai Lama, Gen. Fred Woerner, Rev. George Tinker, writer Maxine Hong-Kingston, Maki Mandela (daughter of Nelson Mandela) and anthropologist Helen Fisher. Call: Office of the Provost, 632-7000.

Films. The Committee on Cinematic Arts (COCA) will offer a series of films throughout the year on Friday and Saturday nights at the Javits Lecture Center. The Alternative Film Series features a fall line-up of international films on Tuesdays at 7:00 and 9:30 p.m. at the Stony Brook Union Auditorium. The Humanities Institute will be screening a selection of Soviet films in the fall and a series on "Jewish Films/Jews in the American Cinema" in the spring, all at the Village Cinema in Port Jefferson. For COCA listings, call the Stony Brook Union information desk 632-6830; Alternative Cinema can be reached at 632-6107; the Humanities Institute is at 632-7765.

Frank Melville, Jr. Memorial Library. Holds 1.7 million bound volumes and two million publications in microformat, and maintains subscriptions to 12,000 periodicals. Collec-

tions include the William Butler Yeats archives and papers of Sen. Jacob K. Javits. Through the Long Island Library Resources Council, holdings are available by inter-library loan to any Long Island resident with significant research needs. Call: 632-7110.

Humanities Institute. Promotes interdisciplinary research in theory, criticism and interpretation, stressing historical and social analytic approaches. Sponsors film series, seminars, fellowships and guest lecturers. Lecturers for 1990-91 are James Clifford, Joan Wallach Scott, Houston Baker and Teresa de Lauretis. Call: 632-7765.

Institute for Long Island Regional Archaeology. Aims to preserve Long Island's cultural resources by performing archival and archaeological field work required by State Environmental Quality Review Act (SEQRA). Also serves as a resource to individuals with questions or problems regarding SEQRA regulations, properties with historic or prehistoric remains, or artifacts. Call: 632-7618.

International Art of Jazz, Inc. Sponsors the jazz subscription program series at Stony Brook, Sunday afternoon cabaret-style concerts in Garden City, a summer jazz festival at Heckscher State Park in Islip and community concerts throughout the year. Also presents jazz workshops for young people and special programs coinciding with Black History Month in February. Offices of the nation's oldest professional non-profit jazz organization are on the Stony Brook campus. Call: 632-6590.

International Theatre Festival. Brings theatre companies from around the world to the Stony Brook campus for a six-week festival at the Staller Center from early June through July. Call: 632-7230.

Latin Day. Annual event held in March (coinciding with the Ides) to bring high school students together for a day of classical skits, lectures and projects involving Roman pottery, coins, clothing and mosaics. Call: 632-6546.

Poetry Center. Devoted to making poetry accessible by inviting regional and national writers to give informal readings. Sponsors writing workshops that concur with creative writing courses and offers a large library of contemporary poetry. Call: 632-7373.

Pollock-Krasner House and Study Center. Sponsors programs on art and art history for the scholarly community and general public. Houses two research collections on the art of Jackson Pollock and Lee Krasner. Located in East Hampton, the center is open to the public by appointment. Operated by the Stony Brook Foundation. Call: 324-4929.

Quality Day Camp. A summer program of sports, games and more is offered for children between the ages of 3 and 15. Call 632-9092.

Staller Center for the Arts. Long Island's most comprehensive arts facility, the Staller Center houses the 1,100-seat Main Stage, the 400-seat Recital Hall and three smaller theaters, plus the University Art Gallery. Presents varied annual program that includes internationally prominent artists in dance, theatre and music, as well as graduate and undergraduate student performers. A monthly calendar of events is available to members of Friends of the Staller Center. For information about performances and tickets, call the Staller Center box office, 632-7230.

University Bookstores. Barnes & Noble operates bookstores on both West and East campuses—on the library

plaza facing the Stony Brook Union and on the second level of the Health Sciences Center. Each month, the bookstore spotlights faculty authors with an "Author of the Month" promotion. West Campus store: 632-6550; East Campus store: 444-3685.

WUSB-90.1 FM Radio. Stony Brook's campus radio station operates 24 hours a day, featuring wide range of music and public affairs programming. Program guide available. Call: 632-6500.

FOR THE FAMILY

Astronomy Nights. Lectures focused on recent developments in astrophysical research are followed, weather permitting, by viewing sessions with the university's telescopes. Programs are usually conducted on first Friday of each month, except in January. Call: 632-8221.

Athletic Facilities. Facilities include the new Stony Brook Indoor Sports Complex, which contains a 4,100 seat arena (the largest in Suffolk County), a four-lane track, squash courts, locker room facilities and large lobby in addition to a 25-yard pool, racquetball courts, Universal weight rooms, free weight room, dance studio and exercise room. Outdoor facilities include the 1,600-seat Patriot Field, 24 tennis courts, a six-lane track and handball/paddleball courts. Facilities are available to the public through individual and family memberships. Facilities are also available to off-campus groups. Call: 632-7200.

Intercollegiate Sports. Stony Brook's 20 intercollegiate sports teams play extensive schedules from September through May. Women's soccer and men's lacrosse compete at NCAA Division I level. Most events are free. Call: 632-7200.

Museum of Long Island Natural Sciences. Offers public programs in geology, paleontology, botany and the natural history of Long Island. Sponsors nature walks, illustrated lectures, live animal demonstrations, children's programs, teacher enrichment workshops and guided trips to zoos, parks and other attractions. Open 9:00 a.m. to 5:00 p.m. Monday through Friday. Call: 632-8230.

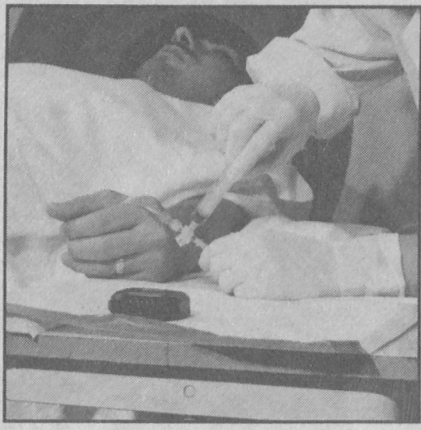
Parent-Child Partnership in Chemistry. Provides opportunity for parents and young children to explore chemistry through "hands-on" experiments using household chemicals. Call: Chemical Education Resource Center, 632-7992.

Sports Clinics. Free football, basketball, volleyball and soccer clinics for children are offered by the Division of Physical Education and Athletics. Call: 632-7205.

Summer Cheerleading, Football and Tennis Camps. Privately run camps offered for elementary through high school students. Call: 632-6320.

Summer Sports Camps. Instruction in a variety of sports is offered for elementary through high school students by the Division of Physical Education and Athletics. Programs are directed by Stony Brook head coaches. Call: 632-7205.

Sunwood Beach and Gardens Club. Works with the university to keep the grounds of the Sunwood estate open and maintained. Members' yearly fees cover use of the beach and grounds; an additional fee is charged for group functions. Volunteers help during special gardening days, supplementing the basic upkeep provided by university groundskeepers. Call: 632-7008.



HEALTH CARE

An unyielding commitment to Long Island's good health

AIDS Clinical Trial Unit. Conducts research to discover the best treatments for patients infected with human immuno-deficiency virus (HIV) and illnesses associated with the virus. Call: 444-1658.

AIDS Education and Resource Center of the School of Allied Health Professions. Provides AIDS educational resources for health professionals. Focus is on psychological and ethical issues of AIDS. Call: 444-3209.

AIDS Treatment Center. Coordinates outpatient and inpatient care and services in a state-designated center that provides primary care and consultation to physicians who treat patients with HIV illness. Call: 444-1667.

Allergic Disease Center. One of 14 centers nationwide, the center is dedicated to the investigation of allergic diseases as determined by the National Institute of Allergy and Infectious Diseases. Call: 444-2344.

Ambulance Corps. Squad provides ambulance service to university community and assists other local squads. Also provides training programs to public in CPR and first aid. Call: 632-6737. Emergency: 632-8888.

Ambulatory Care Pavilion. Numerous departments at University Hospital provide treatment and tests on an outpatient basis. Patients are seen by appointment. Call University Hospital switchboard: 689-8333.

Ambulatory Surgery Unit. A fully accredited service that enables patients to be admitted, undergo a surgical procedure and be discharged in the same day. Call: 444-1002.

Back School Program. A comprehensive outpatient program for those suffering from lower back pain and needing rehabilitation. Call: 444-1031.

Blood Bank. A full-service laboratory with blood donation capabilities. Call: 444-2624.

Burn Center. Equipped, staffed and designed to provide care to adults and children, the center is staffed by specially trained physicians, nurses, physical therapists, dietitians, occupational therapists, respiratory therapists and social workers. Call: 444-2270.

Cancer Center. Provides comprehensive diagnosis and treatment of all types of cancers including effective forms of therapy not available at other institutions. Call: 444-2540.

Cardiology. A number of prevention and treatment programs are available to the community. These include:

- Preventive Cardiology Center. Call: 444-2785.
- Arrhythmia Detection and Sudden Death: Electro-physiological techniques, halter monitoring, consultation for patients with ventricular and supraventricular arrhythmias. Call: 444-1067.

- Noninvasive Tests, Stress and Echocardiography (ultrasound of the heart) Call: 444-1770.

- Cardiac Catheterization: Standard pressure and flow determinations, coronary angiography and balloon angioplasty. Referrals for these procedures are valuable in patients with unstable angina and acute myocardial infarction. Intra-aortic balloon support is also available. Call: 444-1064.

- General Cardiology and Silent Heart Disease Program. Call: 444-1060.

Center for Sudden Infant Death Syndrome (SIDS). Provides support to those experiencing the tragic loss of an infant through SIDS, as well as training for police officers, ambulances and medical personnel. Call: 444-3690.

Childbirth Education Programs. A comprehensive series of classes for parents designed to promote and enhance a healthy childbearing experience. Call: 444-2105.

Children's and Perinatal Bereavement Team. Provides guidance and support to families who have lost a child. The team meets twice a week. Call: 444-2024.

Coram Health Center. Provides primary health care operated by University Hospital and Suffolk County Health Services Department. Located at 3600 Route 112, Coram. Call: 732-0400.

Diabetes Center. Provides inpatient and outpatient services for the management of diabetes and diabetic complications with an emphasis on patient education. Call: 444-1037.

Drug Information Center. Provides an up-to-date resource for physicians. *Note: Does not function as a poison control center.* Call: 444-2672.

Emergency Department. Round-the-clock evaluation and treatment center for all adult and pediatric emergencies. Call: 444-2465

Emergency Hotlines

- Emergency Department: 444-2465
- Hospital Information: 689-8333
- Lyme Disease: 444-3808
- Rape/Sexual Abuse: 444-1234
- Regional Poison Center at Nassau County Medical Center: 542-2323

Genetic Counseling. Available to patients who have family histories of single gene disorders, multifactorial traits, chromosomal abnormalities and reproductive loss. Counseling is provided for patients undergoing amniocentesis for prenatal diagnosis. Call: 444-2790.

Hand Center. Specialized care to patients with hand injuries or maladies including rheumatic diseases, Dupuytren's disease, tendon and nerve problems and tumors. Call: 444-2182.

Headache Clinic. Treats patients with migraine and/or muscle contraction headaches using relaxation training, biofeedback and psychological techniques. Call: 632-8845.

Home Dialysis Program. Patient education for home dialysis with a variety of modalities designed to give control back to the patient. Call: 444-2690.

Long Island Alzheimer's Disease Assistance Center. Provides diagnostic consulting service, testing, patient intervention, referrals to community agencies, educational and support services to care givers and health care providers. Call: 444-1365.

Long Island Kidney Stone Center. Dedicated to the treatment of patients with kidney stones and kidney stone disease. Call: 444-1919.

Lyme Disease Treatment Center. Provides testing and treatment to persons with Lyme Disease. Consultant services available to area physicians. Hotline staffed weekdays, 9:00 a.m. to 5:00 p.m.: 444-3808.

Multiple Sclerosis Comprehensive Care Center. Provides a multidisciplinary approach to treating the disease, referrals as needed and specialists in devices for the handicapped. The Long Island Multiple Sclerosis Society chapter provides a nurse coordinator. Call: 444-2599.

Muscular Dystrophy Clinic. Provides evaluation and ongoing treatment of adult and pediatric patients with muscular dystrophy and metabolic myopathies, peripheral neuropathies, motor neuron diseases and disorders of the neuromuscular function. Call: 444-1427.

Neonatal Intensive Care Patient Group. Provides support and education for parents of infants in the Neonatal Intensive Care Unit. Meets every other week. Call: 444-2006.

Occupational Medicine. Provides medical services to workers and employers to eliminate work-related illness and injury using preventive measures including assessment, inspection, education and treatment. Call: 444-2460.

Pain Clinic. Outpatient services for patients with chronic pain. Call: 444-3711.

Psychological Center. Available to adults, children, couples or families experiencing emotional, psychological or behavioral difficulties. Conducts psychological testing and consultation for those with questions regarding school placement, learning disabilities and other potentially problematic life decisions. Call: 632-7830. (Stony Brook students should consult with the University Counseling Center.)

Renal Treatment Center. Includes pediatric and adult kidney transplant service and the Long Island Transplant—University Hospital Organ Procurement Organization, the Kidney Outreach Program, and renal services, including dialysis and follow-up of patients who have hypertension and/or chronic renal insufficiency. Call: 689-8333.

School of Dental Medicine's Dental Care Center. Provides a full range of services from dental checkups to oral surgery, periodontics, orthodontics, pediatric dentistry and dental care for the disabled. Care is delivered by dental students. The center accepts Medicaid. Call: 632-8989.

Scoliosis Screening. Part of the spine service that provides specialized services for congenital deformities and scoliosis in children including both medical and surgical management. Call: 444-2181.

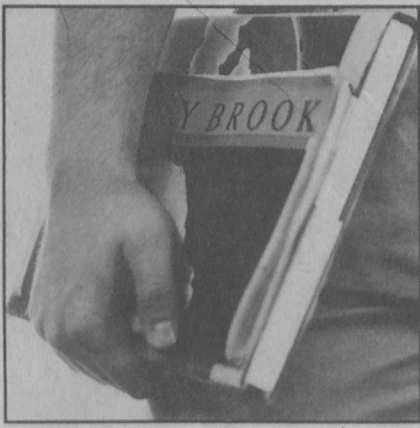
Sibling Preparation Program. Meets twice a month to prepare a brother or sister for a new sibling. Call 444-2960.

Sleep Disorders Center. Provides diagnosis and treatment of patients who have difficulties going to sleep or staying asleep, or who have other problems associated with sleeping and waking. Call: 444-2916.

Sports Medicine. A full range of services is available, including treatment of injuries to the knee and shoulder. Call: 444-2181.

Thalassemia Services. Provides transfusion and iron chelation service for children and adolescents with thalassemia and related hemoglobin disorders. Call: 444-1151.

University Hospital. As part of Long Island's only comprehensive, academic medical center, University Hospital dedicates more than half its 500 beds to specialized cases and intensive care. In addition to the services above, the hospital also provides an arthritis center, critical care units, kidney transplants, computerized tomography, magnetic resonance imaging, newborn and high-risk obstetrical care and extensive resources for diagnostic and laboratory testing. Call 689-8333.



SCHOOL PARTNERSHIPS

Opportunities for the next generation

Center for Excellence and Innovation in Education. Develops and coordinates partnership programs between the university and public schools, designs teacher education and certificate programs and performs educational research. Established Master of Arts in Teaching (MAT) degree programs in social studies, chemistry, earth science and physics, and is developing additional MAT programs in English, mathematics, French, Italian, German, and Russian. Call: 632-7696.

Center for Science, Mathematics and Technology Education. Serves as Stony Brook's primary contact point for students and teachers seeking assistance in science, mathematics and technology education. Coordinates science teacher visitor program between university and public schools; sponsors in-service conferences, workshops and courses and science teacher training. Call: 632-7075.

Chemical Education Resource Center. Offers range of assistance to teachers and students, such as "Magic of Chemistry" demonstrations, one-day workshop on conducting classroom chemistry experiments and introductory course for high school students on conducting research in chemistry. Call: 632-7992.

Elementary Science Training Institute. Week-long institute teaches elementary educators to use elementary science syllabus and carry out mentoring role with other teachers. Call: Center for Science, Mathematics and Technology Education, 632-7075.

International Science and Engineering Fair. Regional playoffs held on campus for annual competition. This year's playoffs will be held March 19. Call: 632-7075.

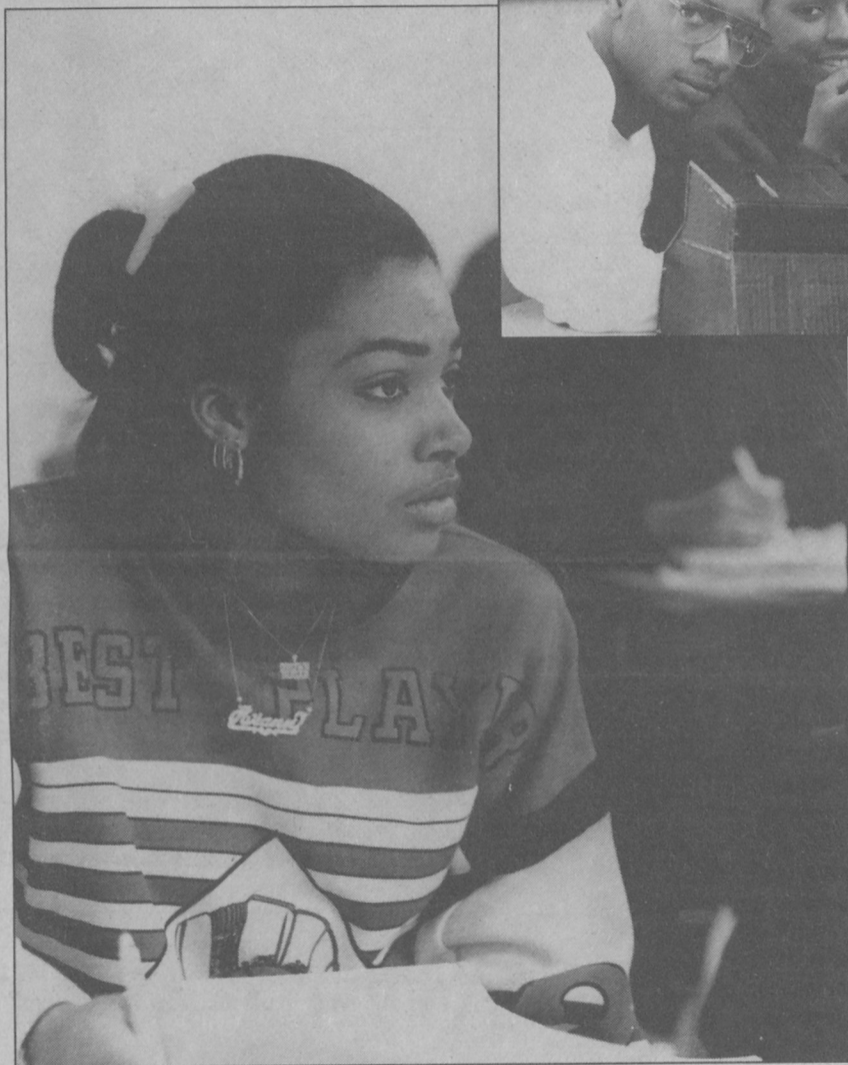
Liberty Partnership Program. Funded by the New York State Education Department, the program provides junior and senior high school students in selected districts with a broad range of services designed to increase motivation and ability to complete a high school education and pursue a college education. Call: 632-8761.

Long Island High School Teacher's Colloquium. Colloquium series for secondary school teachers and their gifted and talented students features presentations on topics of special interest by Stony Brook faculty members. Call: 632-7696.

Long Island Physics Teachers Association. Holds monthly meetings on campus. Call: 632-8175.

New York State Summer Institute for Science and Mathematics. Brings academically talented students to campus for three-week residential enrichment program aimed at enhancing science and mathematics interest and aptitude. Students tackle interdisciplinary projects, such as developing feasibility study for establishing a colony on the moon. Applicants are chosen by the New York State Department of Education, which funds the program. Call: 632-8175.

Point of Woods Laboratory. Offers remedial summer school for children in first through fourth grades experiencing behavioral and academic problems. Focuses on reading, language arts, mathematics, independent study skills, and behavior management. Also conducts research on behavior development with parents and toddler age children. Call: 632-7874.



PHOTOS BY SUE DOOLEY

SAT Preparatory Course. Provides comprehensive overview of key subject areas, including comprehension, vocabulary, algebra and geometry. Call: 632-7071.

Science and Technology Entry Program (STEP). Encourages and prepares students from underrepresented groups and low-income secondary school students for entry into scientific, technical, health and health-related professions. Academic enrichment, tutoring, counseling and workshops are offered through year-round programs. Call: 632-8761.

Science Olympiad. Brings to campus teams of students from Long Island high schools for competition in events encompassing biology, chemistry, physics and earth sciences. Sponsored by New York State Department of Education. This year's event is scheduled for March 16. Call: 632-7075.

Speakers. University departments lend assistance in identifying speakers for community groups and civic and professional organizations. Call: Office of Public Relations, 632-6310.

Student Research Support Program. Supports development of research projects by high school students who wish to submit entries to science competitions or develop other science projects. Students attend sessions on campus conducted by Stony Brook faculty, and faculty continue to be "on call" for questions and assistance. Call: 632-7075.

Suffolk Partnership Program. Provides tutors and interns to selected school districts to assist in encouraging and developing skills of students at risk of dropping out. Also runs workshops for teachers and paraprofessionals. Call: 632-6546.

Theatre Performance Workshop. Offers Stony Brook student-produced programs for performances in Long Island schools. Call: 632-7277.

Young Scholars Program. Provides opportunities for academically talented high school students to experience learning environment of a major university while earning college credits not usually available in high schools. Courses are offered afternoons and evenings, and occasionally on Saturdays. Call: 632-6867.



CORPORATE PARTNERSHIPS

Teamwork to keep Long Island strong

Center for Biotechnology. Promotes biotechnology-related research and fosters development of university-industry collaboration. Invests in early phase research projects with potential for commercialization. Call: 632-8521.

Center for Corporate Continuing Education and Training. See Non-Credit Opportunities. Call: 632-7071.

Center for Industrial Cooperation. Promotes collaboration between regional firms and College of Engineering and Applied Science. Facilitates joint project development, faculty consulting and internships. Call: 632-8518.

Interim Incubator Program. Available on the campus for start-up companies and new ventures in high technology Program offers reasonable rental fees, support services and access to academic laboratory facilities and services. Call: 632-6960.

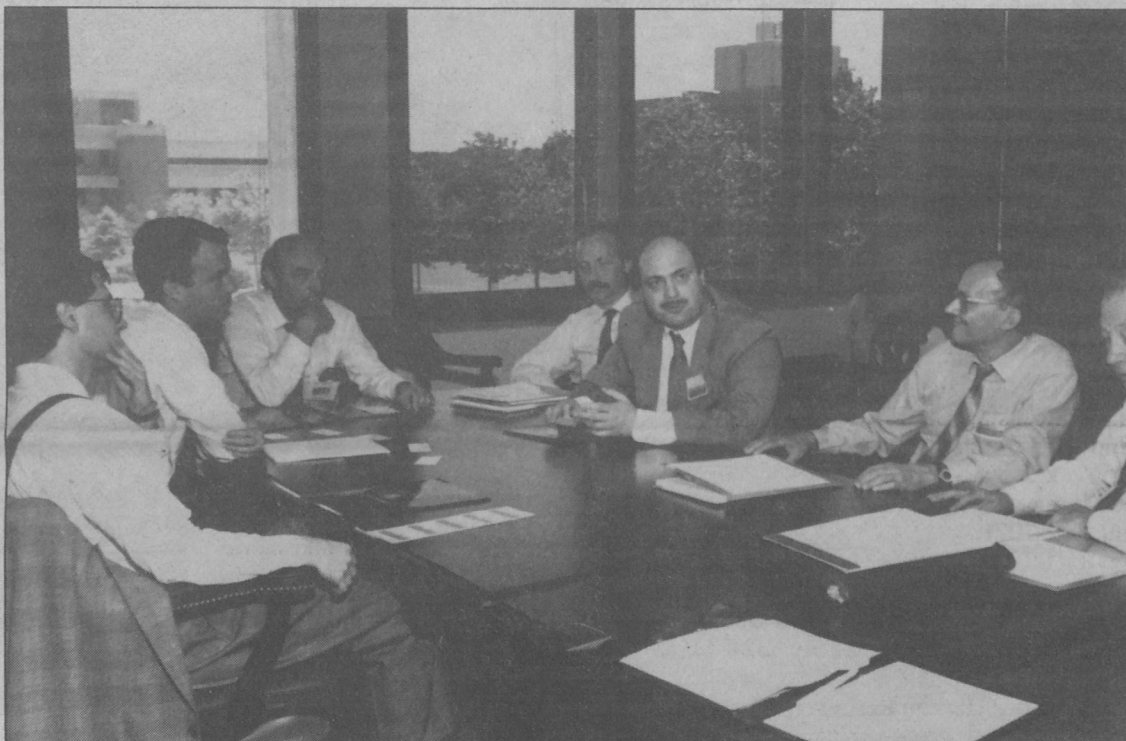
Industrial Associates Program. Promotes interaction between regional firms and the Department of Computer Science. Initiatives include industrial internship program and annual job fair. Call: 632-8470.

Long Island Environmental-Economic Roundtable. Newly created forum composed of business, government and civic leaders will design and recommend policies to ensure a balance between environmental protection and economic development. The roundtable will also serve as an advisory board for new businesses seeking assistance with permits, licenses and environmental regulations. Call: 632-8700.

Management and Human Resources Development Program. One and two-day seminars focus on topics of importance to business professionals. Call 632-7071.

New York State Small Business Development Center. One of 19 state-funded centers located on college campuses throughout New York, the center offers counseling, business plan development, financial planning, market training and research for small business entrepreneurs. Sponsors workshops on small business trends and issues throughout the year. Call: 632-9070.

Regional Economic Development. Brings into institutional focus the manifold university programming that responds to regional needs and constituencies, supports regional development outreach in the academic sector and develops new institutional responses to regional opportunities. Serves as a central contact point between the region and the academic and research resources of the university. Call: Office of the Special Assistant to the Provost for Regional Economic Development, 632-7006.



ABOUT THE UNIVERSITY AT STONY BROOK

Founded: 1957. Established as small college to teach science and mathematics education in the "post-Sputnik" era. Moved to Stony Brook in 1962 with expanded mission as one of State University of New York's four graduate centers.

Missions: Teaching, research, health care, student life, regional cultural development and regional economic development.

Programs: Offers more than 100 bachelor's, master's and doctoral degree programs.

Research: Conducted \$66 million in sponsored research in 1989-90, accounting for 27 percent of SUNY's total research volume. Is classified by the Carnegie Foundation as one of approximately 70 "Type I" research institutions in the nation as measured by such indicators as Ph.D. production and breadth of programs.

Budget: \$500 million. Forty percent of the total revenue are state

appropriations. Remainder is generated chiefly through tuition, research, auxiliary services, and hospital revenues.

Economic Impact: Estimated at \$1 billion annually on Long Island economy.

Undergraduate Enrollment: 11,100

Graduate Enrollment: 5,804

Degrees Awarded in 1990: 3,875

Total Alumni: 61,000

Total Faculty: 1,515

Total Employees: 11,000. Figure includes State and Research Foundation employees, student assistants and work study students.

UNIVERSITY AT STONY BROOK SWITCHBOARDS

Main Switchboard: (516) 689-6000

University Hospital Switchboard: (516) 689-8333



NON-CREDIT OPPORTUNITIES

Instruction that takes you where you want to go

PROFESSIONAL DEVELOPMENT

Center for Corporate Continuing Education and Training. Offers tailor-made corporate training and personnel development to Long Island businesses, either in-house or at university facilities. Call: 632-7071.

Center for Education on Substance Abuse. Established through a New York State legislative appropriation, the center is developing credit and noncredit education programs on substance abuse for educators, health care professionals, social workers and the public. Call: 632-7060.

Insurance Licensing Course. State-approved program leads to New York State license to become insurance agent or broker. Call: 632-7071.

Intensive English Center. Offers 15-week English as a second language programs during fall and spring semester and short-term summer courses. Call: 632-7031.

Management and Human Resource Development Programs. See Corporate Partnerships.

Public Service Training Program. Offers seminars and college-level courses designed for members of the professional, scientific and technical bargaining unit of the Public Employees Federation. Call: 632-7071.

Real Estate Programs. Courses offered in real estate licensing, sales and appraising. Call: 632-7071.

PERSONAL ENRICHMENT

Foreign Language Mini-Courses for Travelers. Focus is on fundamental vocabulary in Chinese, French, German, Italian, Japanese, Russian, and Spanish. Call: 632-7070.

Lifelong Learning Program. Aims to promote intellectual stimulation and continued learning into retirement years. Through "round table" approach, members assume responsibility for curriculum and social functions. Call: 632-7059.

Senior Citizen Auditing Program. Provides adults 60 years of age and over free access to most credit-bearing Stony Brook courses on space-available basis. Catalog available. Call: 632-7059.

Taproot Writing Workshops and Journal. Directs writing workshops for senior citizens. Stimulates writing, publishes a journal and presents public readings. Supported by the New York State Council on the Arts, Suffolk County Office of Cultural Affairs, National Endowment for the Arts and Stony Brook. Call: 632-6635.

Union Crafts Center. Offers a variety of courses and workshops in leisure, recreation and basic arts and crafts skills, including photography, ceramics, painting, scuba



MAXINE HICKE

diving, bartending and more. Also offers summer children's courses and weekly life drawing workshops. Call: 632-6822.

VOLUNTEER OPPORTUNITIES

Alumni Association. Sponsors reunions, regional club events, homecoming, Alumni College Day, and special events on and off campus, and is becoming increasingly active in a career information service and student recruitment. Membership entitles alumni to use of library and gym, discount travel programs, insurance plan offerings and discount buying services. Call: Alumni Office, 632-6330.

Association for Community-University Cooperation. Established in 1962 to create bond between the university and the community. The association supports beautification of campus/community borders, hospitality for university newcomers, and special events programming. Call: Office of University Affairs, 632-6300.

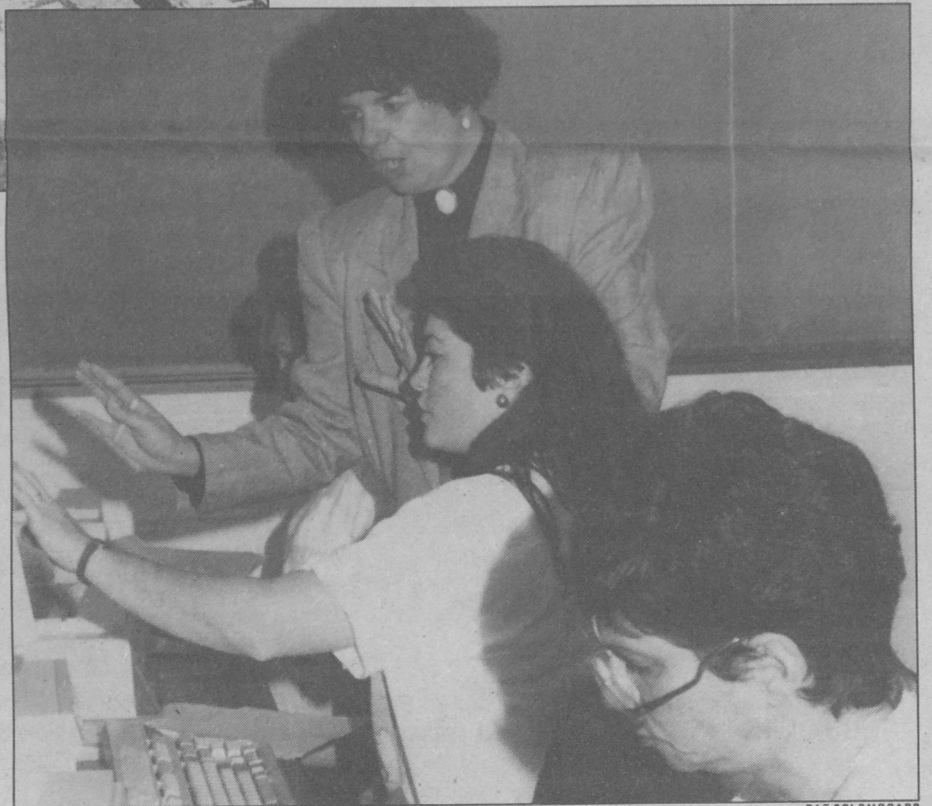
Friends of the Staller Center. Group composed of individuals, families and corporations, who, by their financial contributions, have indicated their desire to support the Staller Center for the Arts. Privileges include the opportunity to purchase early subscriptions at discount, invitations to selected receptions and lectures, free tickets to the Stony Brook Symphony and a monthly newsletter and calendar of events. Call: 632-7232.

Host Family Program. Aims to enrich the experience of international students studying at Stony Brook and to assist in their orientation to American culture. By involving

international students in family activities, host families help to create a warm and caring environment for students far from home. Call: Office of International Programs, 632-7030.

University Hospital Auxiliary. Helps University Hospital by raising funds for needed equipment and special projects, sponsoring educational and community service programs and participating as hospital volunteers. The Auxiliary sponsors the hospital's gift shop, a thrift shop in East Setauket, the patient library, television rental services and a newborn baby portrait service. Call: 444-2699.

Very Important Patriots Club. Booster club for intercollegiate athletics at Stony Brook. Raises funds to enhance the overall athletic program. Money is raised through an annual membership drive and concession sales. Call: Division of Physical Education and Athletics, 632-7200.

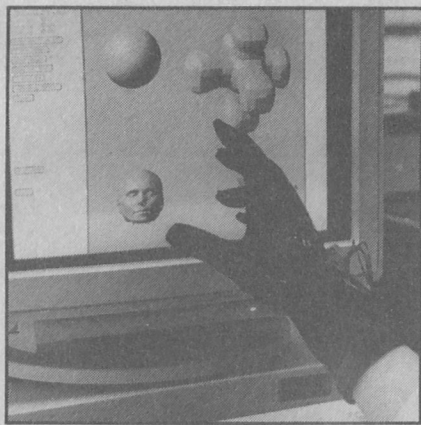


PAT COLOMBARO

Volunteer Firefighters Burn Center Fund. Aims to enhance the clinical and research programs of the Burn Center. The fund has contributed to the development of a special pulmonary screening program for Suffolk County firefighters. Call: 444-2492.

Volunteers Involved Together for Action in Life (VITAL). Coordinates and places volunteers with organizations, including University Hospital, day care centers, psychiatric centers, local schools and courts. Sponsors special events on campus such as the Special Olympics and the Big Brother/Big Sister for a Day program. Call 632-6812.

WUSB-90.1 FM Volunteers. Assist in all aspects of radio programming, production and operation. More than 100 volunteers from the campus and community are needed to keep WUSB on the air 24 hours a day, carrying music, diverse public affairs programming and live broadcasts of Stony Brook sporting events, concerts and lectures. Training is provided. Call: 632-6500.



RESEARCH CENTERS

The power of knowledge: new ideas, new solutions

ENVIRONMENT AND PUBLIC POLICY

Arms Control, Disarmament and Peace Studies Resource Center. Provides access to specialized information in fields of arms control, disarmament, and peace studies. Speakers available to community groups, service organizations and political clubs. Call: 632-7075.

Center for Regional Policy Studies. Undertakes wide range of studies related to key regional issues, including studies leading to a strategic economic development plan for Long Island. Call: 632-9022.

Coastal Ocean Strategies (COAST) Institute. Extends technical and scientific capabilities of the Marine Sciences Research Center into the policy arena, serving as vehicle to reduce time between advances in understanding and application of research to improve management of coastal areas. Call: 632-8701.

Economic Research Bureau. Performs analyses directed toward better understanding and strengthening the Long Island economy. Policies analyzed include industrial, transportation and capital markets, plant closings, industrial competitiveness and productivity, regional economic development and public and private sector employment. Call: 632-7722.

Health Services Research and Management Unit. Analyzes issues of direct concern to health care administrators, including implications and outcomes of various forms of health care financing. Call: 632-7181.

Institute for Social Analysis. Combines expertise of a wide range of researchers in the social sciences to address social, political, economic and cultural issues, with an emphasis on economic development and quality of life on Long Island. The Institute offers a full range of data collection and analysis services to university and outside researchers. Call: 632-7709.

Living Marine Resources Institute. Coordinates activities of the Marine Sciences Research Center in support of the state's commercial fishing, aquaculture and recreational fishing industries. Research focuses on developing better understanding of basic processes controlling reproduction and growth of commercially and recreationally important species. Call: 632-8656.

Marine Sciences Research Center. Serves as the focus for research, graduate education and public service in the marine sciences for the SUNY system. Offers research and education programs in biological, physical, chemical and geological oceanography, as well as in coastal zone management, waste management, and fisheries and shellfisheries science and management. Call: 632-8700.

Swan Pond Biological Station. An environmental education and research center devoted to fostering an understanding of the Pine Barrens, the center is organizing programs for nature appreciation, adult education and school visits. Call: 632-8600.

Waste Management Institute. Aims to reduce impact of waste generation and disposal through research, assessment, education and policy analysis. Takes interdisciplinary approach incorporating source reduction, recycling and incineration methods. Call: 632-8704.



SUE DOOLEY

BASIC AND APPLIED SCIENCES

Center for Mathematical Economics and Game Theory. Focuses on research and training in game theory and its applications across such diverse disciplines as biology, economics, finance, management science, applied mathematics and political science. Each summer the center sponsors a nationally attended conference/workshop series. Call: 632-6991.

Chemical Synthesis Center. Provides the biomedical research community with custom-synthesized compounds (low to medium molecular weight) that are unavailable commercially or prohibitively expensive. A limited amount of contract work is also undertaken. Call: 632-7949.

Howard Hughes Medical Institute in Neurobiology. Research is directed towards understanding the action of chemical transmitter substances in the brain. Call: 632-8645.

Institute for Terrestrial and Planetary Atmospheres. Coordinates interdepartmental research programs on the atmosphere of the Earth and other planets of our solar system. Areas of investigation on the Earth's atmosphere include research into climate change, stratospheric ozone depletion, and air pollution. Planetary research uses the latest data from space probes into the atmospheres of Mars, Venus, Jupiter, Saturn, Uranus, Neptune and their moons. The institute also coordinates graduate degree programs in the atmospheric sciences. Call: 632-6170.

Institute for Interface Phenomena. Explores physical and chemical processes at the interfaces between materials. Researchers in chemistry, physics and materials science are developing new materials and processes that could lead to breakthroughs in electronic technologies. Call: 632-7298.

Institute for Mathematical Modeling. Develops the mathematics necessary to create increasingly sophisticated computer simulations and models for diverse application in the physical, social and biological sciences. Call: 632-8370.

Institute for Theoretical Physics. One of the world's foremost research institutes in theoretical physics (physics done by calculation rather than experimental observation.) Directed by Nobel laureate C. N. Yang, ITP has graduated nearly 100 Ph.D. students now occupying top research and teaching positions worldwide. Call: 632-7970.

Mathematical Sciences Institute. Focuses on research in mathematics, fostering cooperation with other related theoretical sciences, such as physics. Call: 632-7318.



Mineral Physics Institute. Simulates physical and chemical processes that occur within Earth's interior. Adds to our basic understanding of forces inside the Earth and enables geophysicists to synthesize new materials needed by industry. National Science Foundation has designated university's High Pressure Laboratory as a facility for use by scientists nationwide. Call: 632-8211.

Regional NMR Center. Provides facilities for nuclear magnetic resonance spectroscopy. Studies specialize in the structure of biological (protein, enzymes and DNA) and inorganic molecules. Call: 632-7880.

Regional X-ray Diffraction Center. Formulates crystal structure determinations by x-ray diffraction. Call: 632-7944.

continued from page 10

Bringing New Ideas to the Soviet Union

Jeffrey Sachs '74, '78

Stony Brook Council member Jeffrey Sachs, president of a nonprofit organization that will be starting the first public finance system in the Soviet Union, does not believe in miracles.

"People tend to believe in the Wizard of Oz," he says. "They think that only wizards can make things happen. But the trick is to believe in yourself. If you do, you'll find others believe in you, too."

Sachs' point—and the driving force behind his Soviet project as well as other achievements in his career—is that people should not be overwhelmed when confronted by major challenges. The secret, he says, is taking it slowly, one small step at a time. "Taking small steps is not exciting, glamorous or magical," he says. "It's just a lot of hard work."

Apparently, Sachs practices what he preaches. As a student at the School of Dental Medicine, Sachs was interested in public health and felt that dentistry should be represented. He joined a number of university committees as a student representative.

"I found out you don't talk to institutions, you talk with people," says Sachs. "If you've got a good idea and present it in a way people understand, anything is possible."

What is becoming increasingly possible is Sachs' Soviet project. Called EcoLink, the project was developed by Sachs in 1989, shortly after he returned to Stony Brook as a fellow at the Harriman School. A Manhattan financial consultant long involved in public projects, Sachs had served as health and human services adviser to governors Carey and Cuomo, and later as chief of staff to Congressman Tom Downey. He also cofounded the nonprofit housing agency, HELP, with Andrew Cuomo.

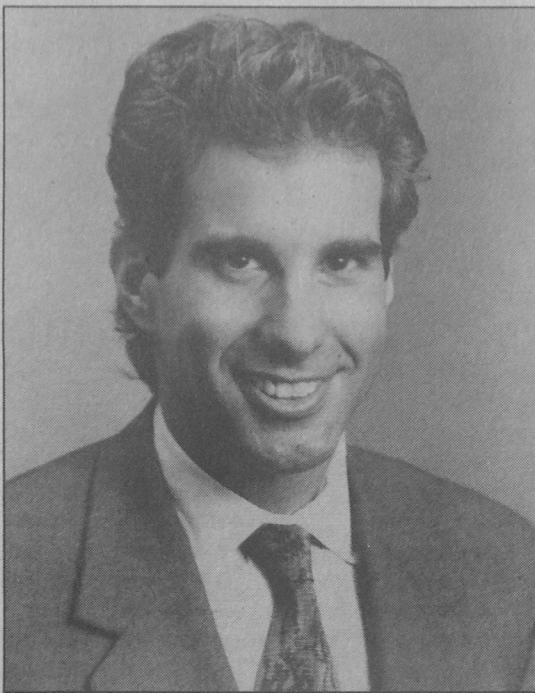
While at Harriman, Sachs pursued his interest in studying the dynamics of social systems. His research suggests that Soviet efforts toward reform, combined with the country's economic problems, would create an atmosphere ripe for new ideas.

And he was right. While in Moscow on other business, he spoke with a number of officials about the country's need for a public finance system. They agreed, eventually signed a "protocol of intentions," and Sachs came home to recruit a team of financial experts. The team, composed of 11 members, includes Harriman dean Gerrit Wolf and economics professor Eric Stubbs, who serves as vice president of the organization.

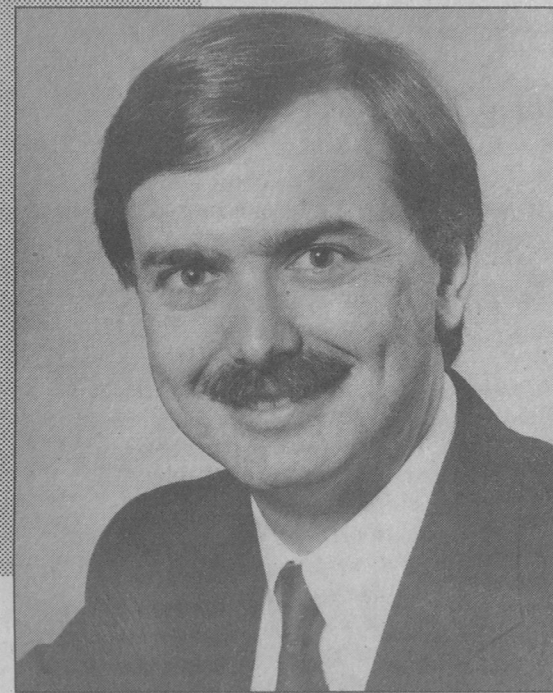
"People . . . think that only wizards can make things happen. But the trick is to believe in yourself. If you do, you'll find others believe in you, too."

The signed protocol calls for EcoLink to develop a program promoting capital investments for public projects in the Soviet Union. The projects are a stock/financial exchange, a grain storage facility and an AIDS hospital in Moscow. Last month, EcoLink members were in Moscow to work with Soviet officials on the design, operation and financing of the hospital.

"You really don't have to be anybody special in order to do something special," says Sachs, who takes his accomplishments in stride. Sachs, who's served on the Stony Brook Council for the past eight years, explains his point of view: "To achieve success, you have to have a good idea, lots of energy, and the ability to get people to want to share in your goals."



Jeffery Sachs



Joseph A. Vasquez, Jr.

Exporting Cultural Sensitivity

Joseph A. Vasquez, Jr. '72, '74

The best advice Joseph A. Vasquez, Jr. ever got was to forego a technical institute in favor of a university so that he could take advantage of the wide range of ideas and disciplines a university can offer.

Vasquez, recalling the days when he first started thinking about college, says he contacted chemistry professor Theodore Goldfarb. As it turns out, he heeded Goldfarb's advice, enrolled at Stony Brook and went on to earn a bachelor's degree in engineering science, and then a master's degree from the Harriman School.

"Professor Goldfarb was right. I graduated with a good background in the humanities, sociology and psychology as well as technical subjects—all of which prepared me for my career," says Vasquez, who is the principal deputy assistant secretary for the U.S. and foreign commercial service of the Department of Commerce.

In this position, Vasquez assists the U.S. director general in overseeing the export research and promotion activities of 1,200 staff members in 68 domestic offices and 122 foreign posts. He also advises the director general on policy and management issues.

"Professionally and personally, what's going on in my life is the direct result of the experiences I had at Stony Brook," says the Huntington, NY, native who always intended to pursue a public service career. "My education at Stony Brook was ideal."

In the engineering program, Vasquez focused on environmental issues and public utilities. Building on that foundation, he then entered the graduate program at the Harriman School, taking courses in economics, management, political science and finance, with an emphasis on public policy and institutions.

"My academic program gave me the background and training I needed for public service," Vasquez says.

Pursuing the secretary of commerce's commitment to export and trade development confirms Vasquez's belief in the need for sensitivity to other cultures beyond technical expertise in finance and economics.

"If you are just a technician, you can't be successful in

"If you are just a technician, you can't be successful in a global economy. You can't design a bridge without knowing the politics and economics of the community where the project is."

a global economy," says Vasquez. "You can't design a bridge without knowing the politics and economics of the community where the project is."

The Commerce Department recognizes the fact that Long Island and other northeast areas have tremendous untapped potential for exports. "We're trying to target those firms with the interest and capability of exporting their goods," he says. Local commerce department offices are available to help firms establish business relationships with other countries.

Vasquez, who's married with two young children, lives in Bethesda, MD. He was instrumental in establishing the Harriman Alumni Association and continues to be active in the organization.

Nurturing the Entrepreneurial Spirit

The Long Island High Technology Incubator, Center for Biotechnology and Small Business Development Center help new companies get their feet on the ground

By Carole Volkman

In Stony Brook's Chemistry Building, scientist Paul Hale of the Moltech Corp. is looking over the data gleaned from his experiments on a new glucose measuring sensor for diabetics.

The sensors now on the market, he says, all have their problems. The most popular ones must be measured for an exact amount of time—if you're off by a few seconds, the reading goes awry. Another popular meter is overly sensitive; it registers too many additional materials in the blood. And all the sensors involve the use of disposable testing strips which, at over 50 cents apiece, become expensive for the average user.

Moltech is designing a new type of meter, one that eliminates the problems of the others on the market. According to Hale, it'll do the job faster, more accurately and at a lower cost.

As it turns out, the sensor isn't the only product Moltech is developing. A conducting polymer that will extend the life of batteries and a diamond protective film used to coat such items as computer chips and compact discs are also on the drawing board.

The research into futuristic products may not be unusual on Long Island, where companies are being urged to diversify into high technology and biomedical products. But what is unique about Moltech is the way it is getting off the ground—it's one of four start-up businesses that, as of this past summer, are part of the incubator program at Stony Brook.

"We wouldn't be in business if we didn't have the incubator," says Hale, who, with company founder Terje Skotheim and six full-time employees, works out of two labs on the fourth floor of the Chemistry Building.

In fact, Hale's assessment is correct. The incubator program, started in 1986 to help young high-tech firms with the nurturing environments, low rents and support services, is well on its way to becoming a major player in

Long Island's economic growth. Last spring, the New York State Legislature passed a funding bill that paves the way for construction to start on a permanent incubator facility. When completed, the incubator will house between 12 to 30 start-up companies in such fields as biotechnology, electronics, telecommunications, information processing and environmental technology.

"This is the type of facility Long Island needs to help encourage new business growth," says Richard Koehn, director of the Center for Biotechnology. "The effect on the economy is almost immediate. The two companies that graduated from the program now have a total of 120 employees. This staff didn't exist before the incubator."

The Center for Biotechnology, one of 10 Center for Advanced Technology (CAT) locations across the state, serves as a liaison between research scientists and private companies. It is located at Stony Brook to be close to the university's research activities and is often one of the stops in the incubator admission process.

"We choose companies that are developing products with commercial potential," said Koehn, whose center provides an additional range of services for researchers in the biomedical field. Chief among these services is the center's seed grant program. Designed to support innovative research in its early stages, the center's 1990-1991 awards totaled \$500,000 in grants to 14 researchers for projects ranging from vaccine production in yeast to a diagnostic blood test for aggressive cancer.

Among the center's additional services are a small business development program, a variety of seminars for scientists and the business community and a technology transfer program. The technology transfer program has been a successful one: almost half the center's sponsored research projects develop into licensing agreements with private industry.

Last fall, the center organized the first "Biotechnology on Long Island" conference, which presented research by more than 50 scientists from Stony Brook, Cold Spring Harbor Laboratory, Brookhaven National Laboratory and North Shore University Hospital-Cornell Medical College. In attendance were representatives from major high-tech industries.

According to Koehn, the conference not only provided an opportunity to network, but, he said, "business people from small to large corporations forged relationships between the private sector and the research community." The conference also garnered major media coverage, highlighting the importance of biotechnology as crucial to the region's economic future. A second conference is being planned for 1992.

"The trend in high-tech is toward bio-tech," says Judith McEvoy, director of Stony Brook's Small Business Development Center (SBDC), who pays careful attention to trends. The center, located at the Harriman School, is one



Paul Hale (right) and scientist Leonid Boguslavsky look over their data at Moltech Corp.

Five Problems That Can Kill Your Business

So you think you can build a better mousetrap. That's fine, according to the folks at Small Business Development Center, which distributes a helpful booklet to all their clients. The booklet lists the certificates you need to get started, the pros and cons of various business structures and articles on how to write a business plan, choose a bank and survive it all. Also included is a list of five problems that can end a small business person's dream. They are:

- **Over-expansion:** Be careful not to expand into product and service lines that can't be sustained by your current business.
- **Undercapitalization:** Watch out for symptoms, which include a debt that's more than half your assets and not enough cash reserves to service your accounts or meet your routine budget.
- **Inability to convert to staff-based operation:** It's best to start delegating authority right away to avoid being traumatized later.
- **Complacency:** No matter how well you're doing, try to gain a 30 percent increase in customers each year.
- **Market saturation:** Reexamine your market constantly and don't be afraid to shift direction every now and then.

of 19 such facilities located on college campuses throughout the state offering free counseling to small business entrepreneurs.

The current trend, says McEvoy, is also away from the "mom-and-pop" retail stores of the past. "We counsel potential retailers very carefully," she says, explaining that because there are no state or federal funding programs for retail businesses, the new shopkeeper is basically on his own.

For the persistent entrepreneur, however, McEvoy and her staff provide a heavy dose of reality. Each client is given a business planning guide, and they're asked to do some homework: exercises designed to help them understand their business, determine the best place to locate, formulate a workable business plan, create a marketing plan and develop a three-year financial projection. "New business people have to be in a position to tell a bank why and how they'll provide a better mousetrap," says McEvoy.

In all, the SBDC has counseled more than 400 people since opening its doors in May, 1989. According to McEvoy, special care is given to persons from traditionally under-represented groups, the physically challenged and women.

Just a generation ago, only five percent of small businesses were owned by women. Today, that number has grown to 25 percent, a figure that will double within the decade. For women establishing their own companies, McEvoy suggests starting from home, taking enough time—up to three years or more—to build a viable business, and then expanding, if desired, by taking a proven financial statement to the bank for further financing.

In the meantime, McEvoy has three hints for novice women entrepreneurs: Abide by the zoning code, get an answering machine, and always carry a business card, because you never know whom you'll meet.

Projected Growth of Long Island Employment 1988-2000

According to the Center for Regional Policy Studies, there will be a severe labor shortage on Long Island beginning in 1995. This chart shows how many jobs will be available through the year 2000 in key occupations, along with a listing of the number of new jobs available if there were no labor shortage.

Occupation	With Labor Force Constraints	Without Labor Force Constraints
Managerial and Management Related Occupations	9,973	16,905
Professional, Paraprofessional, Technical	46,632	68,520
Financial Specialist Occupations	6,392	7,926
Engineers, Architects, Surveyors	9,912	12,950
Computer and Mathematical Occupations	5,122	6,364
Social Scientists	3,100	4,225
Law and Related Occupations	3,647	4,529
Teachers, Librarians, Counselors	-1,771	2,361
Health Practitioners, Technicians	8,055	12,041
Writers, Artists, Entertainers	-6,103	-4,962
All Other Professionals	18,278	23,086
Sales and Related Occupations	36,273	50,861
Clerical and Administrative Support Occupations	52,617	74,739
First Line Supervisor, Clerical	4,704	5,968
Secretarial, General Office Occupations	21,633	33,358
Data Processing Occupations	15,570	21,852
All Other Clerical Occupations	10,710	13,561
Service Occupations	36,989	54,394
Protective Service Occupations	19,773	23,078
Food and Beverage Occupations	10,012	15,483
Health Service Occupations	7,922	10,501
Cleaning and Building Service Occupations	5,655	8,625
All Other Service Occupations	-6,373	-3,293
Agriculture, Forestry, Fishing	-3,455	-1,966
Production Workers, Operatives, Maintenance Workers	35,671	58,947
Blue Collar Worker Supervisors	3,822	5,417
Mechanics, Installers, Repairers	3,548	4,667
Precision Production Occupations	2,660	7,137
Transportation/Material Moving Machine Operators	10,473	14,529
Helpers, Laborers, Material Movers, Hand	8,808	12,190
All Other Blue-Collar Workers	6,360	15,007

Plans for New Plant Moving Ahead

continued from page 3

The plant, to go on line in 1994, will be built by a private development team. The team, composed of CEA, USA, Inc., a subsidiary of Public Services Enterprises Group Inc., and Gas Energy Cogeneration Inc., a subsidiary of Brooklyn Union Gas Company, was selected in April from among seven candidates. The team will be responsible for providing financing, construction, operations and management for the facility, which is expected to make the university self-sufficient for electricity.

Despite a stringent energy conservation program, the university's costs for electricity and fossil fuel (oil) exceed \$26 million a year. Once the cogeneration plant is on-line, Stony Brook will be able to buy electricity, heat and steam from the developer/operator at a rate less than what it now pays or projects to pay in the future to LILCO. The university also plans to share in the savings produced by the facility. Such savings will be applied toward improving campus facilities and addressing the university's enormous deferred maintenance problem.

Long Island High Technology Incubator

With funding passed last spring by the New York State Legislature, plans are moving ahead for construction of Stony Brook's permanent incubator facility.

According to Francis P. Hession, president of the nonprofit Long Island High Technology Incubator, Inc., the corporation is now negotiating for a builder and construction is expected to start by the middle of next year. Plans call for a 42,000-square-foot building to be located on the east side of Nichols Road, just north of University Hospital and the Health Sciences Center.

Presently, four tenants are housed on campus in the interim incubator program. The tenants and the research they are developing are:

BioCogent, Ltd.: Biomembrane mimetics and controlled delivery. (BioCogent is due to graduate to Stony Brook Technology Center by this fall.)

Kerix and Amur Research: A new class of hormones that regulate electrolyte and water balance in tissues.

Moltech Corporation: Biosensors, conducting polymers and diamond films.

Orion Therapeutic Systems, Inc.: New forms of treatment for blood clotting and related problems.

Two companies graduated from the incubator program and are now headquartered at Stony Brook Technology Center. They are:

Curative Technologies, Inc.: Therapeutic wound care.

Olympus Biomedical Research Center: Reagents for chemistry and blood analyzers.

Managing University Resources: Project Prometheus

The Greek god, Prometheus, gave humankind energy after his brother Epimetheus failed to fulfill his assignment to allocate, in a fair and equitable way, the Earth's resources to all living things. Epimetheus ran out of resources before coming to humans, and Prometheus brought back fire from the sun and gave it to mankind.

Project Prometheus was created by President John H. Marburger last fall to provide guidance in the management of the university's energy resources, water, sewage, municipal solid waste, toxic and hazardous wastes, and medical wastes.

The current increases for energy, water, sewage and waste disposal will cost the university more than \$30 million this year. The price of all these items is rising rapidly, but the amount of state funds to pay for them is not. The gap between costs and budgeted state allocations is getting wider.

Project Prometheus established working groups around each of the "sensitive resources." Working group chairs are Peter Kahn, professor of physics, and Carl E. Hanes, deputy to the president for special projects; R.L. Swanson, director, Waste Management Institute (water and sewage); Ron LaValle, deputy director of support services at University Hospital (medical waste); Hugh Mulligan, director of auxiliary services (alternative fuels and transportation), and George Marshall, director of environmental health and safety (toxic and hazardous wastes).

The conclusions and recommendations of most of the working groups have been received by the Project Prometheus steering committee. They will be integrated into a comprehensive strategy which will be submitted to Marburger this month.

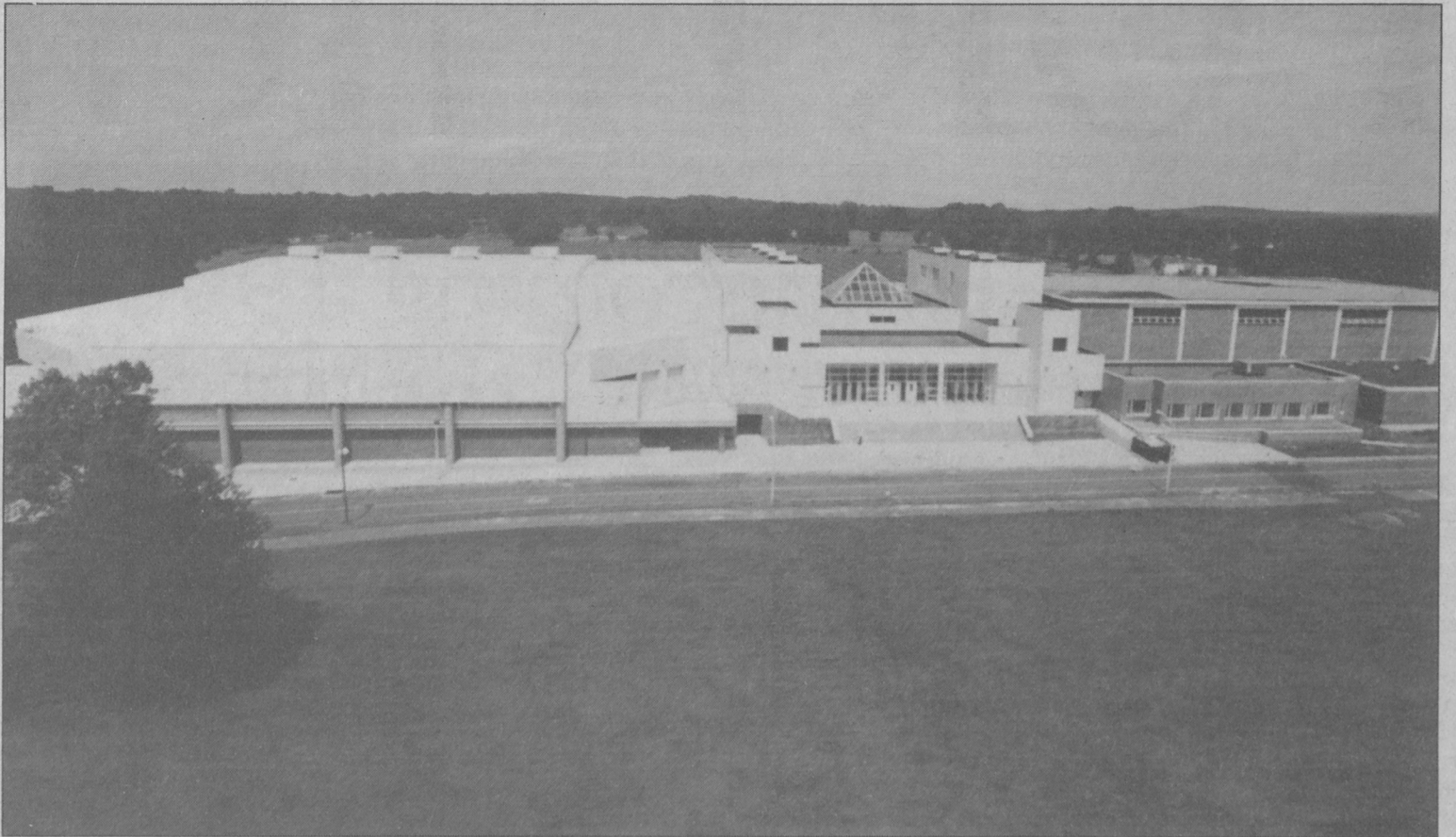
Indoor Sports Complex Opens Its Doors October 11

The Stony Brook Indoor Sports Complex, located next to the Stony Brook Union on Center Drive, will open Thursday, Oct. 11 after three years of construction and more than 20 years of planning.

"The opening of the complex rings in a new era in physical education, athletics, intramurals, club sports and student activities," says John Reeves, director of the Division of Physical Education and Athletics.

Several events and ceremonies are planned to open the complex in grand fashion. A transfer ceremony during which symbols of the past will be moved from the existing gymnasium to the new structure will be held for staff members in the Division of Physical Education and Athletics at noon. A luncheon will follow immediately following the transfer ceremony. At 4:00 p.m., a ribbon-cutting ceremony will be open to all Stony Brook faculty, staff, students, alumni and the community. Later that evening, a dinner commemorating the opening will be held at the University Club. Tours of the new facility will be conducted from 5:30 to 8:00 p.m. on Thursday and on Saturday from 10:00 a.m. to 2:00 p.m.

Additional ceremonies are planned as athletic teams open their seasons in the new complex. On the weekend of Nov. 16, two basketball tournaments are planned. The men's team will host Trinity, Swarthmore and Massachusetts Institute of Technology Friday, Nov. 16 and Saturday, Nov. 17. On Saturday, Nov. 17 and Sunday, Nov. 18, the women's team will host Amherst, SUNY Albany, and Dickinson.



A view of the new Stony Brook Indoor Sports Complex from the roof of the Physics Building.

ROBERT O'ROURK

"These tournaments draw precisely the kind of competition we want to bring to this campus," says Reeves. The basketball court will be dedicated prior to the men's game on Friday evening. "In conjunction with the tournaments, we will hold free youth basketball clinics for boys and girls," adds Reeves. "These clinics are an extension of our existing program that includes clinics for boys' and girls' soccer, volleyball, lacrosse, and football."

Opening ceremonies for the indoor track

and squash courts are also being planned. Facility dedications will take place prior to their respective sport contests Saturday, Dec. 1. The inaugural event on the new track will be the Stony Brook Classic for the men's and women's track team's starting at 9:00 a.m. The opening of the squash courts will begin with a series of exhibition matches to take place before the squash team's matches against Wesleyan and Steven's Tech.

The main arena of the new \$17 million, 105,000-square-foot sports complex will seat 4,100 for basketball and volleyball and 5,000 for special events such as lectures, concerts and possibly graduation ceremonies. There will be a four-lane, six sprint lane track (177 meters in distance), six glass back-walled squash courts and new locker room facilities which include six new team rooms and a new training room with capacity for hydro and electrotherapy.

The complex will also contain two large, attractive lobby areas suitable for receptions and gatherings, eight new offices for physical education and athletics staff and two concession stands.

The existing gymnasium, which will become the East Wing of the Indoor Sports Complex, opened in 1964. It was designed to accommodate a student body of 4,000. It has served as the home for all indoor ath-

letic teams and seats 1,800 for basketball and volleyball. When not in use for competition, the gymnasium contains three multipurpose courts suitable for basketball, volleyball, badminton or indoor soccer. The facility also houses a six-lane, 25-yard pool, eight racquetball courts, two Universal weight rooms, a free weight room, a dance studio and an exercise room. The existing facility will be attached to the new facility, providing one self-contained, expansive athletic complex.

The new complex will serve as the center for physical education, intercollegiate and intramural athletics for the university and help address the recreational, educational and entertainment needs of the university community. The facility will also be available for high school track and basketball championships, trade shows and concerts.

"Although undergraduates will be the main recipients of the benefits of the new facility, it will also enhance life for graduate students, faculty, staff, alumni and friends of the university," says Reeves. "I see the new sports complex as tangible evidence of the commitment of the State University of New York system and the State University of New York at Stony Brook toward the quality of life on our campus."

Upcoming Special Events at Stony Brook

With the addition of the Indoor Sports Complex, Stony Brook now has a facility that will attract new visitors to campus. Following are some of the events to be held in the new complex and existing facilities:

Date	Event	Location
Oct. 28	Special Olympics	East Wing Gym
Nov. 3	Team USA Soccer Tryouts	Soccer Field
Nov. 4	Team USA Soccer Tryouts	Soccer Field
Nov. 4	Brookhaven Dance Guild	East Wing Gym Dance Studio
Nov. 8	Wine Tasting	West Wing Lobby
Nov. 9-10	Sec. XI High School Swim Championships	Pool
Nov. 10	Energy Balance Polarity Workshop	Dance Studio
Nov. 11	Scuba Demonstration for the Disabled	Pool
Nov. 17	University Association Reception	West Wing Lobby
Nov. 18	Admissions Open House	East Wing Gym
Nov. 25	Burn Center Doll Show	East Wing Gym
Dec. 8	Catholic High School Track Meet	West Wing Arena
Feb. 3	Catholic High School Track Meet	West Wing Arena
Feb. 26	Sec. XI Boys High School Basketball Tourn.	West Wing Arena
Feb. 28	Sec. XI Boys High School Basketball Tourn.	West Wing Arena
March 2	Sec. XI Boys High School Basketball Tourn.	West Wing Arena
March 9	Sec. XI Boys High School Basketball Tourn.	West Wing Arena
March 10	Leukemia Society Jazz Marathon	West Wing Arena Dance Studio
April 19-21	ICON X Convention	West Wing Arena
June 1-2	Baton Twirling State Championship	East Wing Gym

Scheduling and Special Events Manager Named

Traci Thompson, the stadium sales representative for Boardwalk and Baseball in Orlando, Florida for the past two years, has been named scheduling and special events manager for the Division of Physical Education and Athletics.

In this newly created position, Thompson will schedule special events in both the indoor and outdoor sports complexes, including meeting with prospective clients and overseeing facility restoration after events.

"Traci brings a strong educational background in sports management and significant experience in event marketing, scheduling and negotiating with prospective clients," says John Reeves, director of the Division of Physical Education and Athletics. "We are fortunate to have her on our staff."

Thompson earned her bachelor's degree in 1986 and her master's degree in sports administration in 1987 from Eastern Kentucky University.

FORTNIGHT

COMING EVENTS AT THE UNIVERSITY AT STONY BROOK • OCTOBER 1-15, 1990

Homecoming 1990

Four Day Celebration Welcomes Alumni Back to Campus

Hundreds of Stony Brook alumni from across the country are expected to come back to campus Oct. 11-14 to join in this year's Homecoming celebration. Dozens of events and activities are planned not only for alumni, but for students, faculty, staff and the Three Village community as well.

"We've organized an exciting and entertaining weekend for our alumni," says Ann Begam, director of Alumni Affairs. "But it's not only for them. We hope the entire university community comes out and joins the celebration."

One of the highlights of the weekend is the dedication of the new Stony Brook Indoor Sports Complex—one of the finest athletic facilities in New York State and largest in Suffolk County. A ribbon-cutting ceremony will be held Thursday, Oct. 11, at 4:00 p.m. and will be followed by the faculty vs. students volleyball challenge at 5:30 p.m. while tours of the complex are conducted. (For more information on the new facility, see the article on the preceding page.)

Later that evening, the traditional crowning of the Homecoming king and queen will take place at the Masquerade Ball in the Stony Brook Union Ballroom. The ball begins at 10:00 p.m. and dancing continues until 2:00 a.m.

A new twist to this year's celebration is the Homecoming Street Fair. Homemade crafts, flea market bargains and game booths are featured throughout the two-day event. The street fair will be set up between the Stony Brook Union and the Indoor Sports Complex Friday and Saturday from noon to 4:00 p.m. Pat Johnson Presents Touché, a jazz band, performs at 2:00 p.m.

Also on Friday, the Interfraternity/Sorority Council Tug-of-War Challenge will take place at 3:00 p.m. on the varsity softball field followed by dinner al fresco on the Stony Brook Union North Patio at 4:30 p.m. Later that evening, the outrageous juggling troupe The Flying Karamazov Brothers performs on the Main Stage of the Staller Center for the Arts at 8:00 p.m.

On Saturday, another Stony Brook tradition, the Homecoming Parade, begins at 10:30 a.m. from Tabler Quad with floats and fire trucks, bands and balloons. After the parade, the women's soccer team takes on the University of New Hampshire Wildcats at 11:00 a.m. and the football team squares off against the Bentley College Falcons at 1:00 p.m.

Also on Saturday, the aroma of food will fill the air at the street fair's Taste of Long Island. Samples from some of the area's best eateries will be featured from noon to 4:00 p.m.. An international food festival will follow from 4:30 to 7:00 p.m. on the Stony Brook Union North Patio.

Several departmental reunions are scheduled on Saturday. A complete list of reunion locations and times can be found on page 27.

At 5:00 p.m., the Stony Brook Alumni Association will present two awards, the

Distinguished Alumnus Award and the Outstanding Professor Award, at a ceremony at the University Club. That evening, the reunion classes of 1965, 1970, 1975 and 1980 will come together for a dinner/dance in the Stony Brook Union. The Class of 1985 will meet in the End of the Bridge Restaurant.

Homecoming concludes with the Second Annual 1-Mile Fun Run and 5K Run for Scholarships Sunday morning. Trophies and awards will be presented after the traditional pancake breakfast in which several Stony Brook administrators and faculty,



including President and Mrs. Marburger, will put on aprons and prepare a hearty breakfast

For information on any events scheduled during Homecoming 1990, call the Office of Alumni Affairs at 632-6330.

ALTERNATIVE CINEMA SERIES

The Alternative Cinema will offer a series of international films this fall emphasizing the individual style and vision of seven filmmakers.

Each film is unusual in theme, experimental in attitude and technique and irreverent in approach to character. Each seeks to free the cinema from conventionality and tradition.

Films will be presented in the Stony Brook Union Auditorium on consecutive Tuesday evenings at 7:00 p.m. and again at 9:30 p.m., beginning Oct. 2. Tickets are \$2 for general admission and \$10 for the series.

For information, call Marilyn Zucker at 632-6107.

October 2

Sweetie by Jane Champion
Australian, 1989, 90 minutes

October 9

La Salamandre by Alain Tanner
French, 1971, 125 minutes
E. Ann Kaplan, director of the Humanities Institute will speak on the series at 6:30 p.m.

October 16

Working Girls by Lizzie Borden
American, 1987, 90 minutes

October 23

The Conformist by Bernardo Bertolucci
Italian, 1970, 108 minutes

October 30

Viridiana by Luis Bunuel
Spanish, 1961, 90 minutes

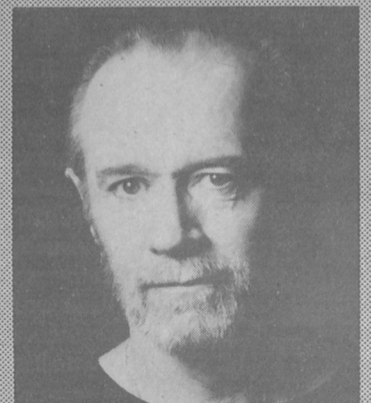
November 6

Law of Desire by Pedro Almodovar
Spanish, 1987, 100 minutes

November 13

She's Gotta Have It by Spike Lee
American, 1986, 84 minutes
Floris Cash, professor of Africana Studies will talk on Spike Lee's films at 6:30 p.m.

George Carlin At Stony Brook



Two performances scheduled during Homecoming Weekend promise to get your feet moving and tickle your funny bone.

On Friday, Oct. 12, Stony Brook Concerts presents Boogie Down Productions, KRS-ONE in the Stony Brook Indoor Sports Complex East Wing. Tickets for this show are \$15, \$8 for Stony Brook students. Doors open at 9:00 p.m. and the show begins at 11:00 p.m.

On Saturday, Oct. 13, Stony Brook Concerts and Comedy presents comedian George Carlin for an evening of hilarious entertainment. Carlin will be joined by fellow comedian Dennis Blair. Tickets are \$24 for reserved seating, \$20 general admission; \$20/\$16 for Stony Brook faculty, staff and alumni; and \$12/\$15 for Stony Brook students. Doors open at 7:00 p.m. for the 8:00 p.m. show in the Indoor Sports Complex East Wing.

Tickets for both shows can be purchased at Ticketmaster or the Polity Box Office. For information, call 632-6465.

CALENDAR

MONDAY OCTOBER 1

Intramural Registration for volleyball, handball doubles and two on two doubles begins. Registration ends Oct. 16. Call 632-7168.

FSA Flea Market. Bargains galore! Every Monday and Thursday, 8:30 a.m.- 4:00 p.m. SB Union Bi-level. Call 632-6826.

Wellness Program, "Stress Management." Open to all faculty and staff. Sponsored by the Office of Human Resources. 11:45 a.m.- 1:00 p.m., 214 SB Union. Call 632-6136.

Union Crafts Center Course, "Tapestry Weaving." First of eight sessions. For weavers with experience on a four harness loom. Create a simple tapestry using a variety of techniques. \$20 materials fee. \$90; \$75 for USB students and senior citizens. 7:00-9:00 p.m., Fiber Studio, SB Union. Call 632-6822.

Alternative Cinema Series, *Sweetie*. \$2. 7:00 and 9:30 p.m., SB Union Auditorium. Call 632-6107.

Union Crafts Center Course, "Bartending." First of eight sessions. A complete introduction to mixed drinks and liquors as well as bar management. Certificate available. \$70; \$55 for USB students and senior citizens. Section A begins 7:00-8:30 p.m., Section B begins 8:45-10:15 p.m., Fiber Studio, SB Union. Call 632-6822.

Union Crafts Center Course, "Women's Self Defense." First of six sessions. A unique self defense program designed for women; learn basic survival strategies. \$50; \$40 for USB students and senior citizens. 7:00-9:00 p.m., SB Union Bi-Level. Call 632-6822.

Women of Color Coalition. Sponsored by SASU. 8:00-9:00 p.m., 216 SB Union. Call 632-6826.

Parachute Club. Meets 8:00-9:00 p.m., 223 SB Union.

Hosted by the Museum of Long Island Natural Sciences, Earth and Space Sciences Building. Call 632-8230.

Men's Soccer vs. Manhattanville College. 3:30 p.m., Patriot Field.

Faculty Instructional Support Office Workshop, "Finding Time for Scholarly Writing Amidst Busy Work Weeks." All faculty welcome, refreshments will be served. 4:00- 5:00 p.m., 211 Old Chemistry. Call 632-8348.

Physics Colloquium, "Electronic Properties of Quantum Hetrostructures," L. Chang, Watson Research Laboratory and IBM. 4:15 p.m., P-137 Harriman Hall.

Hispanic Heritage Month Film, *Tinku* (The Encounter). A 1990 Bolivian film directed by Juan Miranda. 7:00 p.m., SB Union Auditorium.

NYPIRG. Meets 7:00-9:00 p.m., 237A SB Union.

Union Crafts Center Course, "Pottery Making II." First of eight sessions. Focus on improving technique with special attention to individual needs, achieving work in more complex forms. Fee includes clay, firing and membership. \$95; \$78 for USB students and senior citizens. 7:00-9:00 p.m., Crafts Center, SB Union. Call 632-6822.

Union Crafts Center Course, "Bartending." First of eight sessions. A complete introduction to mixed drinks and liquors as well as bar management. Certificate available. \$70; \$55 for USB students and senior citizens. Section C begins 7:00-8:30 p.m.; Section D begins 8:45-10:15 p.m., Fiber Studio, SB Union. Call 632-6822.

Union Crafts Center Course, "Woodcarving." First of six sessions. Covers tools, sharpening, woods, carving styles and finishes. \$10 materials fee. \$56; \$45 for USB students and senior citizens. 7:00-9:00 p.m., Crafts Center, SB Union. Call 632-6822.

Sailing Club. Meets 7:30-8:30 p.m., 231B SB Union.

Latin American Student Organization (LASO). Meets 7:30-8:30 p.m., 231A SB Union.

Campus Crusade for Christ. Meets 8:30-9:45 p.m., 216 SB Union.

Lesbian, Gay, Bisexual Alliance. Meets 9:00-11:00 p.m., 229 SB Union.

Stony Brook Gaming Club. Meets 9:30 p.m.-midnight, 201 SB Union.

T H U R S D A Y OCTOBER 4

Physical Chemistry Seminar, "Water: Bound, Unbound and Relaxed," Robert Bryant, University of Rochester. Noon, 412 Chemistry. Call 632-7880.

Women's Tennis vs. CUNY Staten Island College. 3:30 p.m.

Organic Chemistry Seminar, "AIDS-Driven Chemistry of Dideoxynucleosides," Masami Okabe, Hoffman-LaRoche. 4:00 p.m., 412 Chemistry. Call 632-7880.

Union Crafts Center Course, "Clay Sculpture." First of six sessions. A survey workshop exploring a variety of techniques in making clay sculpture. Fee includes clay,

glazes and membership. \$90; \$70 for USB students and senior citizens. 7:00-9:30 p.m. Call 632-6822.

Union Crafts Center Course, "Pottery Making III." First of eight sessions. Explore altering pots and the combination of throwing and hand building while focusing on individual goals and personal expression. Fee includes clay, firing and membership. \$95; \$78 for USB students and senior citizens. 7:00-9:00 p.m., Crafts Center, SB Union. Call 632-6822.

Group Shop Health and Wellness Workshop, "Foot Reflexology." The science of foot massage for health and well being. Bring a towel. 7:00-9:30 p.m.

F R I D A Y OCTOBER 5

Women's Volleyball hosts the Stony Brook Invitational. 3:00 p.m., SB Gymnasium. Also Saturday at 9:30 a.m.

COCA Film, *Driving Miss Daisy*. \$1.50, \$1 with Stony Brook ID. 7:00 and 9:30 p.m. and midnight, 100 Javits Lecture Center. Through Sunday.

Non-Instructional Figure Drawing. Practice from a live model. \$4. 7:30-9:30 p.m., Crafts Center, SB Union. Every Friday

Astronomy Open Nights, "Where Did the Elements Come From: Nucleosynthesis in the Universe," James Lattimer, professor of earth and space sciences. Followed by viewing through the university telescope, weather permitting. Sponsored by the Department of Earth and Space Sciences. 8:00 p.m., 001 Earth and Space Sciences. Call 632-0710.

S A T U R D A Y OCTOBER 6

Stony Brook Foundation Day. A day-long affair to recognize major donors to the university. Includes breakfast, lunch, campus tours and a black-tie dinner. All events, except for the soccer game, are by invitation only. Call the Stony Brook Foundation at 632-6535.

School of Continuing Education Computer Training Seminar, "Introduction to Desktop Publishing: PageMaker." First of six sessions. Introduction to the expanding field of producing publication-quality documents on the personal computer. \$195. Meets Saturdays, Oct. 6, 13, 20, 27, Nov. 3 and 10, 9:00-11:00 a.m. Call 632-7071.

School of Continuing Education Computer Training Seminar, "Intermediate Desktop Publishing: PageMaker." First of six sessions. Focusing on the use of PageMaker for design. \$195. Meets Saturdays, Oct. 6, 13, 20, 27, Nov. 3 and 10, 11:00 a.m.-1:00 p.m. Call 632-7071.

Women's Tennis vs. Dowling College. Noon.

Men's Soccer hosts the Stony Brook Invitational. With SUNY Albany, Hobart College and William Paterson College. Noon. Through Sunday.

Union Crafts Center Course, "Raku Firing Workshop." First of five sessions. Study traditional raku forming techniques with handbuilt and thrown vessels. Open only to experienced Crafts Center potters. Fee in-



Ora Lerman's *The Tree Goddess Returns to New York* (oil on canvas, 1990) is on display through the end of the month at the "Fantastic Voyages" exhibit at the University Art Gallery in the Staller Center for the Arts. The gallery is open Tuesday through Saturday, noon to 4:00 p.m. and one hour before Staller Center events. Call 632-7240.

Union Crafts Center Course, "Wine Tasting." First of five sessions. A survey of the world of wines through taste tests and discussion. \$12 materials fee. Must be 21 years of age to participate. \$65; \$50 for USB students and senior citizens. 7:30-9:30 p.m., Crafts Center, SB Union. Call 632-6822.

Humanities Institute Film Series, Soviet Cinema, *Little Vera*. Cosponsored by the Humanities Institute, the Greater Port Jefferson Arts Council, the Port Jefferson Village Cinema and Theatre Three. \$3. 8:00 p.m., Theatre Three, 412 Main Street, Port Jefferson. Call 632-7765.

T U E S D A Y OCTOBER 2

Vintage Clothing Sale. 10:00 a.m.-4:00 p.m. SB Union Fireside Lounge. Through Oct. 4.

Stony Brook at Law. Meets 6:30-7:30 p.m., 214 SB Union.

ICON. Meets 6:30-8:00 p.m., 226 SB Union.

W E D N E S D A Y OCTOBER 3

Student Research Support Program: Biological Sciences Briefing. A day-long outreach project designed to assist Long Island high school students prepare for the Westinghouse Talent Search and other science competitions held nationally and around the world. Sponsored by the Center for Science, Mathematics and Technology Education (CSMTE) and Center for Excellence and Innovation in Education (CEIE). Call 632-7096.

School of Continuing Education Managerial Seminar, "Women in Upper Management: A New Direction for the 1990s." Providing female professionals with the unwritten rules for reaching upper management and succeeding there. \$195. 9:00 a.m.-4:30 p.m. Call 632-7071.

Campus Walk and Art Exhibit, "The Mushroom Mystique" with "Wildman" Steve Brill, naturalist and artist. Campus walk collecting edible plants, 2:30 p.m., \$2. Exhibit and reception, 7:30-9:30 p.m., \$3. Talk and demonstration, 8:00 p.m.

cludes clay, firing, special glazes and membership. \$135; \$125 for USB students and senior citizens. 1:00-4:00 p.m., Crafts Center, SB Union. Call 632-6822.

Stony Brook Symphony Orchestra, Bradley Lubman, conductor. Program includes Jean Sibelius, Violin Concerto in D Minor, Opus 47, with guest violinist Todd Reynolds and Beethoven's Symphony No. 7 in A Major, Opus 92. The Stony Brook Symphony Orchestra is composed of graduate students pursuing advanced studies in preparation for professional careers. \$7; \$5 for USB students and senior citizens. 8:00 p.m., Main Stage, Staller Center for the Arts. Call 632-7230.

T U E S D A Y O C T O B E R 9

Men's Soccer vs. SUNY College at New Paltz. 4:00 p.m.

Alternative Cinema Series, *La Salamandre*. \$2. 7:00 and 9:30 p.m., SB Union Auditorium. Call 632-6107.

W E D N E S D A Y O C T O B E R 10

Faculty Instructional Support Office Workshop, "Coping with Stress, Procrastination and Other Academic Maladies." All faculty welcome, refreshments will be served. 4:00 - 5:00 p.m., 211 Old Chemistry. Call 632-8348.

Women's Soccer vs. Adelphi University. 4:00 p.m.

Physics Colloquium, "High Energy Behavior of Quarks and Gluons in QCD," A. Mueller, Columbia University. 4:15 p.m., P-137 Harriman Hall.

Humanities Institute Faculty Colloquium Series, "Alban Berg's Lulu: Her Critics and Her Music," Judith Lochhead, assistant professor of music. 4:30 p.m., E-4341 Melville Library. Call 632-7765.

Hispanic Heritage Month Film, *Hasta Cierta Punto* (Up to a Certain Point). A 1984 Cuban film directed by Tomas Gutierrez Alea. 8:00 p.m., Rosebud Theatre (Room 3220), Staller Center for the Arts.

T H U R S D A Y O C T O B E R 11

Stony Brook Indoor Sports Complex Ribbon-Cutting Ceremony. 4:00 p.m.

Stony Brook Indoor Sports Complex Tours. 5:30 p.m.

Faculty/Staff vs. Students Volleyball Challenge. 5:30 p.m., SB Indoor Sports Complex.

Group Shop Health and Wellness Workshop, "Hath Yoga." A unique approach that teaches harmony for the mind and body. 7:00-9:00 p.m.

Department of Theatre Arts Production, *Equus*. A drama written by Peter Shaffer, production directed by John Cameron, assistant professor of theatre arts. \$8, \$6 for USB students and senior citizens. 8:00 p.m., 2:00 p.m. matinee Sundays, Theatre II, Staller Center for the Arts. Call 632-7300. Through Oct. 14.

Homecoming King and Queen Crowning and Masquerade Ball. Traditional passing of the crown to this year's king and queen. 10:00 p.m., SB Union Ballroom.

F R I D A Y O C T O B E R 12

Homecoming 1990. See calendar on page 27 for special events.

Physical Chemistry Colloquium, Special Department of Chemistry Alumni Reunion, "Picosecond Laser Photoelectron Spectroscopy," Joe Knee, Wesleyan University. 4:00 p.m., C-116 Old Chemistry.

COCA Film, *Dick Tracy*. \$1.50, \$1 with Stony Brook ID. 7:00 and 9:30 p.m. and midnight, 100 Javits Lecture Center. Through Sunday.

Staller Center Variety Series, Flying Karamazov Brothers. "They handle the audience as cleverly as the cleavers, clubs, knives and other imaginable and unimaginable objects they juggle," says *New York Magazine's* John Simon. \$22.50, \$20.50 and \$18.50. USB student tickets half price. 8:00 p.m., Main Stage, Staller Center for the Arts. Call 632-7230.



On Friday, Oct. 12, the Staller Center Variety Series presents the Flying Karamazov Brothers on the Main Stage. Tickets are \$22.50, \$20.50 and \$18.50; Stony Brook student tickets are half price and alumni will receive a \$4 Homecoming discount. For information, call the Staller Center box office at 632-7230.

S A T U R D A Y O C T O B E R 13

Homecoming 1990. See calendar on page 27 for special events.

Day of Recollection for Undergraduate Students. Sponsored by the Catholic Campus Ministry, Interfaith Center, Humanities. Call 632-6562.

The International Art of Jazz presents The Twenty-Ninth Street Saxophone Quartet. Delivering jazz in its entirety, from Bop to Rap and back. \$17.50; half price for USB students. 8:00 p.m., Recital Hall, Staller Center for the Arts. Call 632-7230.

S U N D A Y O C T O B E R 14

1-Mile Fun Run and 5K Run for Scholarships. Check-in begins at 7:30 a.m. SB Indoor Sports Complex Lobby. Preregister through the Office of Alumni Affairs, 336 Administration. Call 632-6330.

Homecoming Pancake Brunch and Trophy Presentation. The traditional brunch, served by members of the university community. 10:00 a.m., SB Union North Patio.

M O N D A Y O C T O B E R 15

Bolivian Art Exhibition and Sale. In celebration of Hispanic Heritage Month. Monday-Friday, noon-5:00 p.m., SB Union Art Gallery. Through Oct. 26.

Wellness Program, "Developing Positive Thinking Patterns to Reduce Stress." Open to all faculty and staff. Sponsored by the Office of Human Resources. Noon - 1:00 p.m., 214 SB Union. Call 632-6136.

School of Continuing Education Computer Training Seminar, "Introduction to Spreadsheets: Lotus 3.0." First of six sessions. Setting up spreadsheets for modeling or tracking, manipulating data and making use of built-in functions. \$195. Meets Mondays and Wednesdays, Oct. 15, 17, 22, 24, 29 and 31, 5:45-7:45 p.m. Call 632-7071.

Group Shop Health and Wellness Workshop, "Premenstrual Syndrome." Discussion and demonstration of healthy and practical approaches to dealing with PMS. 6:30-8:00 p.m.

Hispanic Heritage Month Film, *El Norte* (The North). A 1983 Guatemalan film directed by Gregory Nava. Bill Miller, associate professor of history will discuss the immigration experience, cultural conflicts and adaptation to a new culture. 7:00 p.m. SB Union Auditorium.

A R T E X H I B I T S

Oct. 1-Oct. 3: Group Exhibition, "Photographs of Puerto Rico, 1900-1940." In celebration of Hispanic Heritage Month. Sponsored by the Latin American Student Organization. Monday-Friday, noon-5:00 p.m., SB Union Art Gallery.

Oct. 1-Oct. 31: Group Exhibition, "Fantastic Voyages." Includes paintings and sculptures that reveal the conscious and subconscious imaginary voyages of James Connor, Judith Huf, Robert Jessup, Ora Lerman and Charles Parness. University Gallery, Staller Center for the Arts.

Oct. 5-12: Group Exhibition. In celebration of gay, lesbian and bisexual pride. Monday-Friday, noon-5:00 p.m., SB Union Art Gallery.

Astronomy Open Nights Friday, October 5, 8:00 p.m. 001 Earth and Space Sciences

"Where Did the Elements Come From:
Nucleosynthesis in the Universe"

Presented by James Lattimer, professor of earth and space sciences. After the lecture, participants will have the opportunity to look at the cosmos through the university telescope, weather permitting. Sponsored by the Department of Earth and Space Sciences.
Call 632-0710.

New Travel Agency Opens

Carlson Travel Network, one of the nation's largest travel management companies with more than 1,700 business and retail locations worldwide, is Stony Brook's new on-campus travel agency.

Carlson offers a multitude of services to suit all travel requirements including guaranteed lowest airfare, discounted hotel rates, a 24-hour emergency hotline and group travel discounts. Carlson maintains files on individual travelers to ensure special arrangement such as seating preference, special meal needs, frequent flyer numbers and other pertinent information are not forgotten.

Agents will work with Carlson's international rate desk to negotiate a special low rate for international travel. They will advise travelers on international travel issues such as currency exchange, customs regulations, airline security, visas or passports.

The same well-informed, friendly agents that served the Stony Brook community will continue to work for Carlson. They are available to answer any questions regarding business and leisure travel for faculty, staff and students.

Carlson has developed some vacation packages exclusively for the university community. These packages include trips to Hawaii, Mexico, the Caribbean and Europe. They all are value-priced. They will also help arrange group vacations at an affordable price.

The agency is committed to providing services to students. In addition to leisure packages, they can arrange student tours. The agency is also working with the university to develop a student internship program—students will have the opportunity to work with Carlson and the airlines to create and implement marketing programs.

Located in the basement of the Frank Melville, Jr. Memorial Library (next to the bookstore), Carlson Travel will begin operation in October. It will be open Monday through Friday from 9:00 a.m.-5:00 p.m. Call 632-7799.

Seminar on Supervision Skills

The School of Continuing Education's Center for Corporate Continuing Education and Training (CCCET) is offering a two-day seminar, "Supervising and Managing Through Communications," Oct. 18 and 19. The program will cover the importance of building effective relationships on the job.

Through lecture, discussion and participative exercises, participants will learn how to get their message across, listen for infor-

mation, deal with defensiveness and exchange feedback with others for problem solving. A healthy communication environment can help people thrive and make the company profitable.

Topics will include gaining cooperation and rapport through communication; listening skills to spot problems and satisfy organizational and individual needs; converting criticism into positive power; speaking with impact in front of groups; making the most of meetings; developing the traits of a leader. This seminar is for new and experienced managers, group heads and team leaders and anyone responsible for getting work done with a staff.

For more information call School of Continuing Education at 632-7071.

University Hospital Auxiliary Opens Port Jefferson Boutique

The University Hospital Auxiliary's Nearly New Boutique, located at 116 East Main Street in Port Jefferson, offers a variety of items including gently used clothing, linens, small household items and bric-a-brac at very reasonable prices.

Students, faculty and staff are encouraged to stop in the shop at its new location and look for bargains. The boutique is offering a special 10 percent discount on all purchases by students who show their Stony Brook identification.

Proceeds from the shop support the auxiliary's projects that benefit University Hospital.

Taproot Receives Grant for Public Readings

Taproot Workshops, an organization based at Stony Brook for Suffolk County's older writers, will hold nine readings of poetry and prose by local writers funded by a grant from the National Endowment for the Arts.

Aaron Kramer of Oakdale, NY, delivered the first three public readings in September. Later in the fall, Jill Bart of Water Mill, NY, and Cornelius Eady, head of Stony Brook's Poetry Center, will read from their work.

For more information on Taproot Workshops, contact Enid Graf at 632-6635.

Welcome Wagon a Success

More than 250 students and 25 faculty and staff participated in this year's "Welcome Wagon," a program sponsored by the Division of Campus Residences to assist new students move into the residence halls.

For the fifth consecutive year, volunteers



President Honors Distinguished Professors

At a recent ceremony at his Shorewood home, President John H. Marburger hosted this year's recipients of the distinguished Service Professorship Award and Distinguished Teaching Professorship Award. From left; Norman Goodman, Distinguished Service Professor; Barbara Elling, Distinguished Teaching Professor; Lester G. Paldy, Distinguished Service Professor; and President Marburger.

helped to make the move in process easier by staffing information booths, directing the traffic flow, unpacking cars and carrying belongings to student rooms. The volunteers ended the day by escorting new students to the New Student Convocation at the Staller Center for the Arts.

Several students were instrumental in organizing the program including Tre Cummins, Karen Teligades, Addie Neckles, Nadim Kayelah and Elbby Antone.

October 14-20 is Alcohol and Drug Awareness Week

President John H. Marburger has designated the week of Oct. 14-20 as "Alcohol and Drug Awareness Week" at Stony Brook.

The primary goals of Alcohol and Drug Awareness Week are to work toward reducing substance abuse through education about drugs and to promote responsible decision making, healthy lifestyles and increasing awareness of substance abuse prevention and intervention services.

This year, special emphasis will be placed on achieving a broader participation on the part of faculty and students. In an attempt to reach more students and to incorporate an academic facet, faculty members are encouraged to address drug-related topics in class.

Faculty who are willing to work a discussion about drugs and substance abuse into their class discussions, please notify the Alcohol and Drug Awareness Planning Team at 632-6705.

Seniors Needed as Volunteers

The Volunteer Service Department at University Hospital is looking for area senior citizens who can bring their experience, warmth and understanding to a variety of volunteer positions at the hospital.

Positions are available in clerical work, administration, visitor services and work with cancer patients.

Volunteers will be required to fill out an application and will be interviewed. Once an application is accepted, volunteers will attend an orientation program, receive a health screening and receive training in a selected area.

Special care will be taken to tailor each position to meet the volunteer's interests and schedule. A commitment of at least three hours a week for at least six months is required. Evening and weekend positions are available. All volunteers receive free parking and a free meal in the hospital's cafeteria.

To volunteer, contact Michael McClain, director of volunteer services, at 444-2610.

Asthma Support Group

A support group for parents and children with asthma has been formed at University Hospital. "Wheeze with Ease" is associated with the American Lung Association and meets every other Monday from 7:00-9:00 p.m. in the Department of Pediatrics.

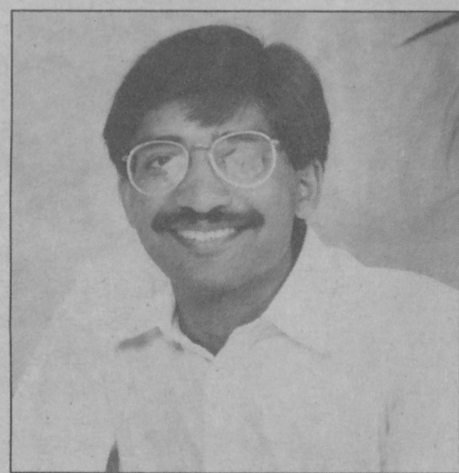
Children are led through a play therapy session by a health care professional, while parents meet with a guest speaker, such as a pharmacist or respiratory therapist.

For information, contact the Children's Medical Center at 444-1151.

President Serves as Event Chair

Health and human service agencies from Long Island will be at nearby Smith Haven Mall in Lake Grove for a "United Day of Caring" exposition Saturday, Oct. 13. President John H. Marburger is serving as cochair of the event which will run from 10:00 a.m. to 10:00 p.m.

In addition to entertainment, contests and celebrity appearances, The event will offer detailed information about and representatives from dozens of agencies funded through SEFA/United Way. Admission is free.



Samir Patel

Student Completes Summer Internship at Betty Ford Center

Samir Patel, a graduate student in the School of Medicine, was one of 12 students from across the country who recently participated in the fourth session of the third annual Medical Student Professional in Resident (PIR) summer program on chemical dependency at the Betty Ford Center at Eisenhower in Rancho Mirage, CA.

The program gives medical students the opportunity to learn about chemical dependency in a recovery setting and enables students to witness the recovery process up close. Approximately 70 students representing 43 medical schools attended these sessions throughout the summer.



Administrators Get Wet for Charity

Gerry Devitt, facilities program coordinator for the Health Sciences Physical Plant (left), and Lynn Davis, purchase associate for Graphic Support Services (right), fill up the dunk tank that was used at the first annual Campus Services employee picnic August 16. The tank was used to raise \$250 for *Newsday's* Adopt-a-Family program. Employees had the opportunity to dunk senior Campus Services administrators including Vice President Harry Snoreck.

SCHEDULE OF EVENTS HOMECOMING 1990

Thursday, October 11

- 4:00 p.m. **Stony Brook Indoor Sports Complex Ribbon-Cutting Ceremony.** SB Indoor Sports Complex.
- 5:30 p.m. **Stony Brook Indoor Sports Complex Tours.** (Begins from the lobby.)
- 5:30 p.m. **Faculty/Staff vs. Students Volleyball Challenge.** SB Indoor Sports Complex.
- 10:00 p.m.- **Homecoming King and Queen Crowning and Masquerade Ball.** SB Union Ballroom.
- 2:00 a.m. Traditional passing of the crown to this year's king and queen and Homecoming kick-off.

Friday, October 12

- Noon- **Homecoming Street Fair.** Center Drive between SB Union and SB Indoor Sports Complex.
- 7:00 p.m.
- 2:00 p.m. **Homecoming Jazz Band.** Center Drive between SB Union and SB Indoor Sports Complex. Pat Johnson presents Touche.
- 3:00 p.m. **Homecoming Interfraternity Sorority Council Tug-of-War Challenge.** Varsity Softball Field.
- 4:00 p.m. **Department of Chemistry Colloquium.** C-116, Chemistry. With chemistry alumni.
- 4:30 p.m. **Dinner al fresco.** SB Union North Patio.
- 8:00 p.m. **Staller Center Variety Series, Flying Karamazov Brothers.** Main Stage, Staller Center for the Arts. "They are as nimble of wit as they are deft of hand," says New York Magazine's John Simon. "They handle the audience as cleverly as the cleavers, clubs, knives and other imaginable and unimaginable objects they juggle." \$18.50, \$16.50 and \$14.50.
- 9:00 p.m. **SAB Concert.** Boogie Down Productions, "KRS-ONE," sponsored by SAB SB Indoor Sports Complex, East Wing.

Saturday, October 13

- 9:30 a.m.- **Homecoming Alumni Registration and Refreshments.** SB Union Lobby.
- 2:00 p.m. Coffee and Pastries 9:30 a.m.-11:30 a.m. Refreshments will be served throughout the afternoon.
- 10:00 a.m. **Parents Breakfast.** University Club, Chemistry Building. Hosted by the Stony Brook Alumni Association and the Vice President for Student Affairs.
- 10:00 a.m. **Campus/Stony Brook Indoor Sports Complex Tours.** Continuing every hour on the hour, from the SB Union Lobby.
- 10:30 a.m. **Homecoming Parade.** Begins at Tabler Quad and continues throughout campus, ending at the Street Fair.
- 11:00 a.m. **Women's Soccer Game: Lady Patriots vs. University of New Hampshire** at the soccer field.
- Noon- **Taste of Long Island.** At the Street Fair.
- 4:00 p.m. Representatives from Long Island eateries will be on hand offering samples of their cuisine.
- Noon- **Homecoming Street Fair.** Center Drive between SB Union and SB Indoor Sports Complex.
- 7:00 p.m.
- 1:00 p.m. **Football Game: Patriots vs. Bentley College Falcons,** Athletic Field.
- 1:00 p.m. **Department of Chemistry Alumni Reunion.** Chemistry Lobby.
- 3:00 p.m. **Department of Biology/Biochemistry Alumni Reunion.** Life Sciences Lobby.
- 3:00 p.m. **Department of Computer Science Alumni Reunion.** Computer Science Lobby.
- 3:00 p.m. **Department of Psychology Alumni Reunion.** Psychology B.
- 3:00 p.m. **Orientation Leaders Alumni Reunion.** Jacob K. Javits Lecture Center Lobby.
- 3:00 p.m. **School of Medicine Alumni Reunion.** Call (516) 444-2312 for information.
- 3:00 p.m. **Student Polity Association Alumni Reunion.** End of the Bridge, SB Union.
- 4:30- **International Food Festival.** SB Union North Patio.
- 7:00 p.m.
- 5:00 p.m. **Alumni Association Awards Presentation.** University Club, Chemistry Building. Presentation of the Distinguished Alumnus and Outstanding Professor Awards. Reception follows.
- 6:30 p.m.- **Child Care.** 226 SB Union. Provided by the Alumni Association. \$3 per child.
- midnight
- 7:00 p.m.- **Alumni Reunion Dinner Dance.** SB Union Ballroom. With members of the classes of 1965, 1970, 1975 and 1980. \$22 per person.
- midnight
- 7:00 p.m. **Class of 1985 Reunion.** End of the Bridge, SB Union. \$5 per person.
- 9:00 p.m.- **George Carlin Live.** Comedy at its best! SB Indoor Sports Complex East Wing.
- 2:00 a.m.

Sunday, October 14

- 7:30 a.m. **Check-In for 1-Mile Fun Run and 5K Run for Scholarships.** SB Indoor Sports Complex Lobby. Preregister for the fun run and 5K run through the Office of Alumni Affairs, 336 Administration.
- 10:00 a.m. **Homecoming Pancake Brunch and Trophy Presentation for Runners.** SB Union North Patio. The traditional brunch served by members of the university community.

Homecoming '90 is sponsored by the Stony Brook Alumni Association, the Department of Student Union and Activities, the Division of Campus Residences, Faculty/Student Association, the Division of Physical Education and Athletics, Student Polity Association, Student Alumni Chapter, Interfraternity and Sorority Council, University Dining Services and the Vice President for Student Affairs. For information call the Office of Alumni Affairs, (516) 632-6330.

The Environment and Economy: A Symbiotic Relationship

By J. R. Schubel

The health of Long Island's environment and its economy are coupled. For most of the past several decades, the Long Island economy thrived. Population rose sharply, new business start-ups crackled like popcorn and per capita income was high. New housing projects sprang up like weeds; there was virtually no unemployment. Along with the vibrant economy, people's concern for their environment was heightened. Some of the nation's most imaginative and visionary environmental programs began on Long Island: the bottle bill, the Farmlands Preservation Program and the Open Space Program are but three examples. Year after year, surveys showed that the top concern of Long Islanders was their environment.

In spite of high taxes, high energy costs and high housing costs, Long Island is consistently ranked among the best places in the nation to live. A major factor contributing to the quality of life on Long Island is the quality of Long Island's environment, particularly its coastal environment. Our beautiful beaches, bays, estuaries and lagoons are known throughout the world. They are a magnet for those who want to live and work on Long Island as well as for tourists who flock to the island to recreate.

But in 1989, the Long Island economy, an economy which was once called "recession proof," began to soften. The public's priorities began to shift as the economy continued to unravel.

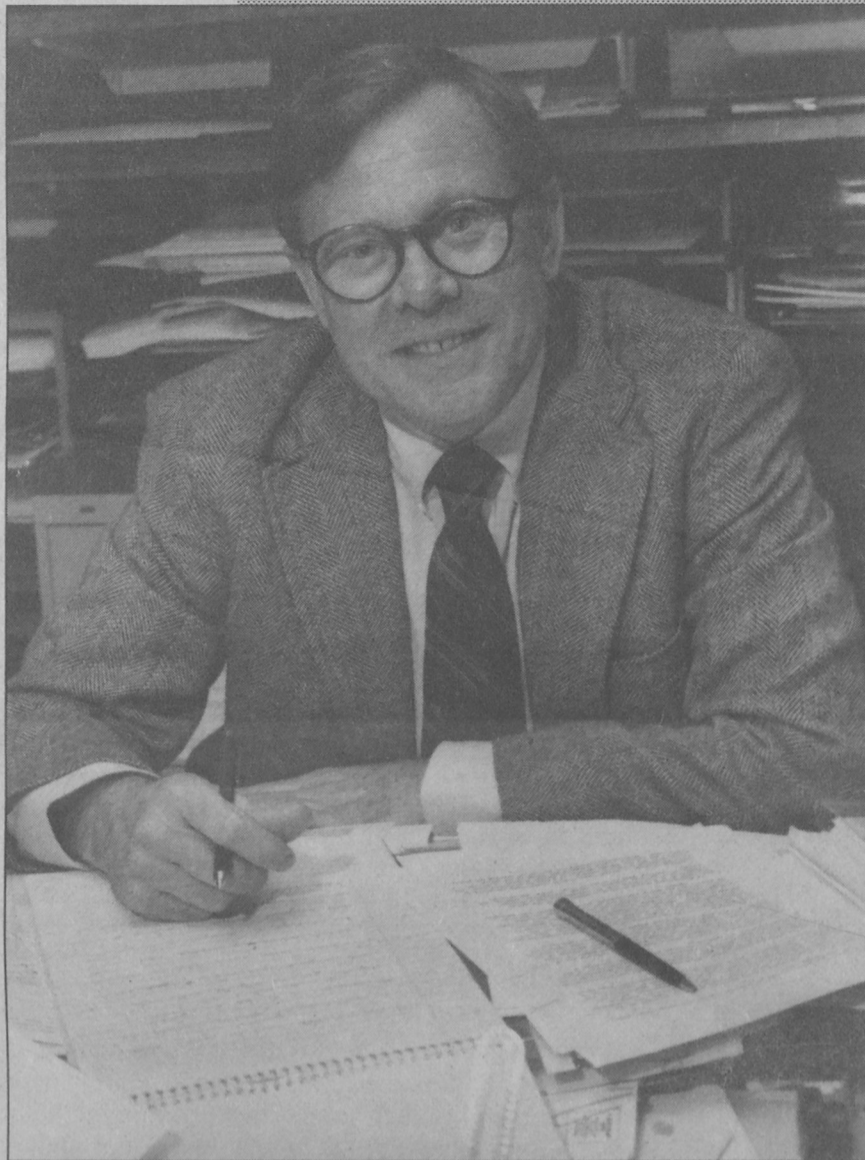
In the April 21, 1990 issue of *Newsday*, the latest survey of Long Islanders showed that, for the first time in many years, the economy was of greater concern than the environment. This is counter to the national trend which shows a growing awareness of environmental problems. Make no mistake, Long Islanders are still committed to conserving the environment. The percentage of Long Islanders who identified the environment and garbage as the most important problems was twice the national average (16 percent versus 8 percent).

But there has been a shift in the priorities that are of greatest concern to Long Islanders. One of the greatest potential threats to Long Island's environment is its deteriorating economy. When people's jobs and livelihoods are threatened, their concern for the environment declines. The health of Long Island's environment and its economy are linked.

Long Island must continue to be assertive in protecting its environment. And it must be even more creative in its search for solutions to a growing number of its environmental problems. It must find solutions that conserve the

"One of the greatest potential threats to Long Island's environment is its deteriorating economy. When people's jobs and livelihoods are threatened, their concern for the environment declines. The health of Long Island's environment and its economy are linked."

J. R. Schubel is dean and director of Stony Brook's Marine Sciences Research Center. He serves as chair of Stony Brook's Regional Development Task Force and the newly created Environmental-Economic Roundtable.



J. R. Schubel

MAXINE HICKS

environment and stimulate the economy.

This can be done, but it will require a different mind-set. Solutions to waste management problems, for example, will have to be found here on Long Island. We may not be able to afford to ship our garbage half-way across the country even if that option still exists, which is unlikely. We will have to find ways of managing our waste products—source reduction, recycling and disposal—in our own backyard. One of Long Island's greatest assets, its environment, and the programs needed to protect it, have been viewed by some as impediments to economic growth. They need not be. Indeed, they could not only be a challenge, but an opportunity.

Long Island is one of the greatest natural environmental laboratories in the world. It is a beautiful environment, but a particularly sensitive one. We rely entirely upon our groundwater for all drinking, domestic and industrial water. That sole-source aquifer has been impacted by leaking landfills, by agricultural fertilizers, pesticides and herbicides, by salt water intrusion and in some places, by industrial discharges. Long Island's coastal environments are rich in diversity and in the uses society makes of them. Some of those uses are in conflict and have severely impacted the environment.

Long Island leaders should be aggressive in recruiting companies to Long Island that are engaged in environmental technologies, particularly in developing tools and technologies to protect, rehabilitate and monitor the environment. The Long Island High Technology Incubator has identified environmental technology as one of the themes for that new facility. Special incentives—recruitment packages—should be developed to attract more mature environmental technology companies to the region.

Several years ago, the Suffolk County Recycling Commission recommended establishing a technology park on county land to recruit companies engaged in recycling and in manufacturing goods from recyclable materials. That remains a good, and as yet unexploited idea. There is a growing recognition that Long Island must diversify its economy. The task will not be an easy one, but the environmental technology field is one area where there is a particularly good match. It's a win-win situation!

The fragility of the Long Island environment must not be used as an excuse for failure to come to grips with the

very real and serious challenges to our continued economic stability. The diversity of our population and the intensity and scope of its demands will not permit Long Island to revert to "bedroom" status. We must acknowledge the necessity for a vital economic base that is appropriate to our setting and our needs.

There is a growing perception that the combinations of town, county and state environmental rules and regulations intended to protect the environment also make it difficult for industries to get into business and to remain competitive. If the economy continues to deteriorate, there may be a growing temptation to sacrifice important environmental safeguards. It was recognition of this pressing need to balance environmental protection and economic development that led to the creation of the Long Island Environmental-Economic Roundtable.

The roundtable is a forum of business, government, environmental and civic leaders to promote sound economic development on Long Island. The roundtable, an outgrowth of the university's Regional Development Task Force, will operate on two levels. On a policy level, it will seek to design and recommend policies and practices to ensure a working balance between environmental protection and economic development.

The goals of the roundtable will be to maintain a high quality environment that will serve as a magnet for new businesses, and to transform Long Island's environmental problems into opportunities for businesses in the environmental field. On another level, it will serve as an advisory board for businesses starting up on Long Island. It will help guide companies through the maze of paperwork, permits and environmental regulations, and it will serve to recruit new companies in environmental technologies.

The flip side of every problem is an opportunity. Long Island is rich in opportunity. The problems we are experiencing are not unique to Long Island. But, because they are expressed with greater urgency and clarity on Long Island than in most other parts of the country, we have an opportunity to exert leadership, and in so doing, to revitalize Long Island. The task will not be an easy one. There are no facile solutions. The situation demands creativity, vision and leadership. As H.L. Mencken once observed, "For every human situation, there is a simple solution. Neat, plausible, and wrong." Well, let us be right!