ICING THE COMPETITION
The Buddy Powers Way
## 1991-92 Rensselaer Varsity Hockey Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Opponent</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sat.</td>
<td>Oct. 26</td>
<td>at Boston University</td>
</tr>
<tr>
<td>Sat.</td>
<td>Nov. 2</td>
<td>Merrimack</td>
</tr>
<tr>
<td>Fri.</td>
<td>Nov. 8</td>
<td>at Boston College</td>
</tr>
<tr>
<td>Fri.</td>
<td>Nov. 15</td>
<td>Brown</td>
</tr>
<tr>
<td>Sat.</td>
<td>Nov. 16</td>
<td>Harvard</td>
</tr>
<tr>
<td>Fri.</td>
<td>Nov. 22</td>
<td>at Vermont</td>
</tr>
<tr>
<td>Sat.</td>
<td>Nov. 23</td>
<td>Dartmouth</td>
</tr>
<tr>
<td>Sat.</td>
<td>Nov. 30</td>
<td>Alabama Huntsville</td>
</tr>
<tr>
<td>Sun.</td>
<td>Dec. 1</td>
<td>at Alabama Huntsville</td>
</tr>
<tr>
<td>Fri.</td>
<td>Dec. 6</td>
<td>at St. Lawrence</td>
</tr>
<tr>
<td>Sat.</td>
<td>Dec. 7</td>
<td>at Clarkson</td>
</tr>
<tr>
<td>Fri.</td>
<td>Dec. 27</td>
<td>RPI Invitational*</td>
</tr>
<tr>
<td>Sat.</td>
<td>Dec. 28</td>
<td>(Northeastern, Union, St. Lawrence, RPI)</td>
</tr>
<tr>
<td>Fri.</td>
<td>Jan. 3</td>
<td>Colgate</td>
</tr>
<tr>
<td>Sat.</td>
<td>Jan. 4</td>
<td>Cornell</td>
</tr>
<tr>
<td>Tue.</td>
<td>Jan. 7</td>
<td>U. Of New Hampshire</td>
</tr>
<tr>
<td>Fri.</td>
<td>Jan. 10</td>
<td>at Princeton</td>
</tr>
<tr>
<td>Sat.</td>
<td>Jan. 11</td>
<td>Yale</td>
</tr>
<tr>
<td>Sat.</td>
<td>Jan. 18</td>
<td>RIT</td>
</tr>
<tr>
<td>Sat.</td>
<td>Jan. 25</td>
<td>at Union</td>
</tr>
<tr>
<td>Fri.</td>
<td>Jan. 31</td>
<td>at Harvard</td>
</tr>
<tr>
<td>Sat.</td>
<td>Feb. 1</td>
<td>at Brown</td>
</tr>
<tr>
<td>Fri.</td>
<td>Feb. 7</td>
<td>Dartmouth</td>
</tr>
<tr>
<td>Sat.</td>
<td>Feb. 8</td>
<td>Vermont</td>
</tr>
<tr>
<td>Fri.</td>
<td>Feb. 14</td>
<td>Clarkson</td>
</tr>
<tr>
<td>Sat.</td>
<td>Feb. 15</td>
<td>St. Lawrence</td>
</tr>
<tr>
<td>Fri.</td>
<td>Feb. 21</td>
<td>at Cornell</td>
</tr>
<tr>
<td>Sat.</td>
<td>Feb. 22</td>
<td>at Colgate</td>
</tr>
<tr>
<td>Fri.</td>
<td>Feb. 28</td>
<td>Yale</td>
</tr>
<tr>
<td>Sat.</td>
<td>Feb. 29</td>
<td>Princeton</td>
</tr>
</tbody>
</table>

### ECAC Playoffs
- **Tue. Mar. 3** - First Round
- **Thu. Mar. 5** - First Round
- **Fri. Mar. 6** - Quarter Finals
- **Sat. Mar. 8** - Second Round
- **Sat. Mar. 13** - Semi Finals in Albany, NY at Boston
- **Sat. Apr. 4** - Finals in Albany, NY

### NCCA Playoffs
- **Sat. Mar. 14** - Finals at Boston

---

For Tickets, call: 518-276-3262
All games broadcast live on WPRF (81.5 mhz)
*To be televised live on WEAK TV, Burlington, VT.
IN THIS ISSUE

2
PRESIDENT'S VIEW

3
LETTERS

7
KALEIDOSCOPE
New funding, two new trustees, a brand-new campus map.

12
BUDDY POWERS
TAKING CARE OF BUSINESS
The goals for this year’s hockey team.

14
ALUMNI NEWS
A big, spirited crowd returns to campus.

17
CLASS NOTES

28
CLUB CALENDAR

31
IN MEMORIAM

32
THE LAST WORD
Carl Westerdahl challenges the RAA to influence Rensselaer’s future.

Cover photo by Mark McCarty.

Reunion '91...
see page 14.
Freshmen Reflect a Changing Rensselaer

September brings with it the usual influx of freshmen... but is it usual? Thinking about these freshmen makes me realize just how much Rensselaer is changing. Among these freshmen are more women, more minorities, and more natives of foreign countries than most alumni could fathom. They have more diverse interests than many alumni might ever remember being reflected on campus. Because of a declining pool of 18-year-olds and a declining interest in science and engineering, these freshmen were more highly sought after, and more money was spent to recruit them than ever before. Because of decreasing federal and state support for students and the demands of an aging campus, these freshmen will face more budgetary restrictions and cutbacks than their predecessors. And I daresay that upon graduation they will be called upon to solve more dramatic social and economic problems than the students of earlier generations.

This changing face of the freshman class is a microcosm of a changing Rensselaer. And it calls upon this university to re-examine itself and to redefine its very purpose. This is the right time to think about our role, our mission, our challenges, and our goals for not only the upcoming school year, but even for the next century. We would be remiss if we didn't re-evaluate ourselves from top to bottom. What are we doing well? Where is our greatest potential for excellence? What needs to be changed or eliminated?

Never have we had more grist for that mill. Recently I have been presented with comprehensive reports on affirmative action, academic integrity, campus safety, recruitment, and fraternity/sorority relationships—all laying out goals and missions specific to those interests.

And now, after 18 months of work involving 23 campus subcommittees, Rensselaer's Panel on Strategic Initiatives is offering its final report to the campus and our constituents. This document lays before us a number of guideposts upon which to build our strategies for change.

The panel has defined four goals: To excel in undergraduate and professional education with a technological emphasis; to excel in forefront research and graduate education clearly allied to our mission; to build relationships with industry, government, academe, and the local community; and to foster a diverse intellectual and social community that encourages the growth of all its members.

These goals, according to the report, must be infused with the values of engagement, integration, and empowerment. And they should focus especially on one of three areas for pre-eminence: Interactive learning; manufacturing, materials and design; and environment and energy.

If you would like a copy of this or any of the other reports, please contact the News and Communications office. As alumni of this university, you are perhaps the most qualified and able audience to examine what Rensselaer has been and what it must become. I urge you, if you have not already done so, to take an interest in the changing mission of Rensselaer and let us hear your opinions about our goals. Better yet, play a role in helping us achieve them.

If you were happy with your Rensselaer experience, help build on it. If you weren't, help make it better for freshmen to come.
Desert Storm

Editor's Note: When Operation Desert Storm began, Ann Marie Catricala, secretary in Rensselaer's alumni relations office, mounted a personal effort to send greetings from the alumni staff to alumni participating in the war effort. Many of those alumni wrote back with sincere thanks for the personal notes they received. Two alumni who found themselves part of a unique Rensselaer presence in the Gulf, wrote an account of their experience, from which we print the following excerpt:

Halfway around the world from Troy, six graduates of Rensselaer formed an Arabian Gulf Alumni Club on board the USS Ranger. The alumni, all naval officers and naval aviators, were led by Rear Admiral R.J. Zlatoper '63, the commander of Carrier Group 7, as they fought with the United Nations coalition in the war against Iraq.

Lt. Lance Hagenbuch '87 flew with the VAW-116 “Sun Kings” who served as the Navy’s airborne early warning and command and control center. And Lt. j.g. Bill Koyama '86, the air transport officer, provided for the efficient delivery of parts, mail, and passengers.

These six alumni typified all the fighting men and women of Operation Desert Storm, whose combined efforts restored freedom to the people of Kuwait and a renewed sense of optimism about what the nations of the world can accomplish by uniting for a just cause.

On a lighter note, they found themselves reunited in the admiral's cabin on March 2, 1991, celebrating the cessation of hostilities, swapping war stories, and trying to recall the third verse to “Hail dear Old Rensselaer.”

Lt. Lance Hagenbuch '87
Lt. Joe LeBlanc '87

Remembering Ricketts

The new issue of Rensselaer has just been received and is super good and, I feel, your best ever. The article “Born in Flames” is outstanding and especially good for an old-timer in the Centennial Class of 1924. I knew “P.C.” very well and he incidentally was instrumental, through Dr. Mason of the chemical engineering department, in getting me a position after graduation where I stayed for 45 years, many as vice president.

I was sorry to hear of the death of “Skets” or “Clary” LeVee ’24, who with Herb Lindholm and I got our class remnants together for our 65th in '89. As you may recall, we had nine out of 58 (15 percent) back, probably an all-time record for a 65th. We were all in our very late 80s, too.

Sereno F. Alling ’24
Cherry Hill, New Jersey

I have intended for some time to tell you what a fine job you are doing on the magazine, and the current issue offers the best opportunity yet to express my congratulations on a truly first-class publication.

I especially enjoyed your piece about the old Ricketts campus. My dad, who graduated the day the old Main Building burned in 1904, worked for the director (as he was always known) for 13 years after that and, according to him, was grossly underpaid for his efforts. Until I was twelve, I lived in close proximity to the campus and well remember when the gym was opened in 1912 and the first dorms of the Quadrangle and the dining hall were built in the area then known as “the rocks.” Dad taught in the Carnegie Building and I knew the campus intimately. When I returned as a student in 1925, the Troy Building and the Sage Laboratory Annex were brand new and the old gray-shingled Dutch Colonial Union Clubhouse still housed the Poly offices and other odds and ends of student activities.

Your inside-cover spread of the lecture hall in Walker Laboratory brought back more memories. It was taken about 1910 or 1911 (a study of some of the suits, the collars, the porkpie hat in the foreground will confirm this to any observer of the fashions of those times).

Keep up the very good work!
William P. Headden ’29
Mountain Lakes, New Jersey

Carrier Correction

As a '79 graduate of the U.S. Naval Academy and an ’87 graduate of RPI, I took great pleasure in reading “TOP-GUN” in the June '91 issue of Rensselaer. Permit me to join what I must presume is a growing list of individuals who would correct your naming of the aircraft carrier “Carl Vincent.” The correct name of the ship is “Carl Vinson.”

A noted attorney and statesman, Carl Vinson had much to do with the strength and structure of our Navy in the 1940s and 1950s. In particular, he was a great proponent of projecting military power through the use of aircraft carriers.

Again, good reading! Thank you for your efforts in compiling such a worthwhile publication.

Matt A. Coleman ’87
Colorado Springs, Colorado
BY JOANNE STILES

The good news is Alan Greenspan says the recession has hit bottom. The bad news is he says the economy isn’t on the way up yet. But none of that is news to the millions of people nationwide who are laid off, about to be laid off, or concerned about being laid off.

Unlike previous recessions, this one has not left Rensselaer alumni unscathed. Traditionally strong employment sectors such as the electronics, automotive, construction, and computer industries have been particularly hard hit during this economic downturn.

Rensselaer alumni are facing a job market that’s more competitive than ever, but now they’ve got stronger than ever support from Alumni Career Services. As a specialized part of the Career Development Center, Alumni Career Services provides programs and services tailor-made for people with career experience.

Alumni surveying the job market can call or drop in at Alumni Career Services in the Darrin Communications Center any weekday during business hours. Here they can obtain career counseling, networking assistance, help preparing resumes, advice on interview techniques, information on over 1600 employers, plus an explanation of how to access an online list of current job openings. One of the most effective tools offered is the Alumni Registry, published six times a year and containing profiles of over 200 alumni whose resumes are available on request to more than 100 subscribing employers.

According to Vicki Lynn, director of the Career Development Center, private firms charge $1,000 to $2,000 for the same expertise and services that Alumni Career Services provides for as little as $50.

“Our aim is to help alumni sharpen their skills to market themselves successfully. We don’t hand out these jobs, we help alumni position themselves to go out and get the jobs themselves,” explains Tom Tarantelli, director of Alumni Career Services.

Facing Uncertainty with Confidence

The key to successful job hunting is an attitude of positive flexibility. In an article in Managing Your Career [spring 1991], a magazine published by the Wall Street Journal, author Tom Peters is quoted as saying, “If you don’t know how to thrive on change and uncertainty, it’s time to learn.” In the same article Los Altos, California, psychologist and consultant H.B. Gelatt says, “Uncertainty is here to stay. We need to learn to think of it as a good thing. Approach career decisions with positive uncertainty.”

An important objective of Alumni Career Services is to prepare alumni to face the uncertainty of job hunting with confidence. Tarantelli, a career counselor for more than 16 years with a master’s degree in counseling from Penn State, has been working with Rensselaer alumni for almost nine years.

He has noticed that in the past several years requests for career counseling services have increased 50-60 percent annually and that many of these alumni have never had to face competition for employment. The typical job-seeking alumni graduated three to five years ago and has already been, or expects to be laid off from a high-tech industry, according to Tarantelli.

Most of these people started their careers at large companies where they expected virtual lifetime job security. But unpredictable world markets, stiff foreign competition, mega-mergers, even the S&L crisis and the Gulf War (all of which add up to a shrinking global economy) have changed all that. Nobody takes security for granted anymore.

Despite the less than rosy economic outlook, “Most alumni,” says Tarantelli, “come in with a ‘can-do’ attitude. All they need is direction, hard information, definite answers, names of contacts—in short, a jump-start.”

Career Development Services’ practical approach has worked successfully for many alumni. Mike Abelson, who received his master’s degree in psychology from Rensselaer in 1988, worked with Tarantelli when he was seeking his first job after graduate school. “Tom prepared me so well during our mock interviews that when it came to the real interview, I felt I’d already gone through it. In fact, it was almost eerie. Tom told me
what was going to happen before it actually did. If it hadn't been for the Career Development Services, my presentation probably wouldn't have been good enough to get me the job," Abelson recalls.

"Now that I'm facing a job search once again," he says, "the first people I contacted were the ones in Alumni Career Services. It just wouldn't make sense for me not to take advantage of the center."

Tarantelli explains, "We're not glitzy or glamorous. We emphasize personal service." He makes sure that when alumni leave the office, they leave with answers to their questions, a sense of purpose, and a working plan of action.

"My favorite question to job-seeking alumni is, 'What have you done so far to look?' More often than not the reply is 'I've been using the classified ads in the newspaper. For most of our alumni, the classifieds are not a very effective tool. The most effective way to survey the job landscape is networking."

Networking is simply talking and listening to people about your field, your goals and interests. Tarantelli often tells people that networking is an opportunity to gather information about the marketplace, refine your ideas, get advice and leads, and even try out new presentation techniques.

"Challenging the job market is not the time to be introspective," advises Tarantelli. "It doesn't do any good to sit at home making long lists. Looking for a job is the time to engage people," he says. It's the time to join professional and social groups, since most jobs are filled through contacts.

**Keeping in Touch with the Job Market**

Many people use Alumni Career Services even though they have good jobs. The directories, open job announcements, and alumni registry are excellent ways to keep in touch with the job market and to spot possible opportunities to move to an even better position.

Nabil Nahra, M.B.A. '82, keeps in regular contact with the Alumni Career Services office just to stay on top of employment opportunities. He landed his current job at an importing firm in New York City with help from the office. And he's keeping in regular contact with Tarantelli while he watches the job market in order to make a move into exports.

"Finding a job is difficult," says Nahra, "and you can't do it alone. You need professionals on your side." Fluent in Arabic, Nahra is focusing on the Middle East in his search for a position with an export firm.

A job search is often an opportunity to reevaluate your goals and perhaps change direction, suggests Tarantelli.

Many women, for instance, seek career counseling in order to regain control of their professional lives and bring them closer in line with their personal goals. Tarantelli has learned that at some time during their careers, women begin to differentiate themselves from their male colleagues by showing different concerns.

"Initially, men and women Rensselaer graduates enter the job market on an equal footing—especially those in the engineering and science fields," according to Tarantelli. But he says that as time goes by, many women find promotions more difficult to obtain and eventually many feel their career progress is sidetracked.

"We are very sensitive to women's concerns here at Alumni Career Services," says Lynn. "Our services and support are not just professional, they're personal as well."

Claudia Assini, M.S. '84, recently visited Alumni Career Services where she spoke to Lynn about interview techniques. "Vicki helped me to see my multifaceted career as a unique advantage. Now I'm looking into marketing as a field offering opportunities to use many of my technical and presentation skills."

"I'm convinced that when job hunting, you can't depend on the ordinary channels, such as advertising. You have to make contacts, starting with alumni clubs or support groups, for instance," says Assini.

**Fulfilling Individual Goals**

"Everyone, male or female, approaches a job search with an individual point of view," explains Tarantelli. "Our objective, however, is always the same—we focus on guiding people toward defining and fulfilling their own particular needs and goals."

In at least one case, this individualized approach to counseling led an alumnus to receive a tempting job offer which he nonetheless turned down.

Nicholas Whitelaw, who graduated in 1988 with a B.S. in mechanical engineering, has been a patent examiner in Washington, D.C., since graduation. At one point he was considering changing jobs, so he placed his qualifications in the Alumni Registry. After an interview and a plant trip, he was offered a job in the auto industry as a product design engineer. But, perhaps as a result of reevaluating his career and checking out opportunities, he concluded he didn't want an engineering job at all—he wanted to be a patent attorney.

Tarantelli was there to assist. "He helped prepare me for the LSAT and got me information on law schools," says Whitelaw, who is now studying law at George Mason University, which has one of the nation's leading patent law programs. With degrees in law and engineering, Whitelaw will be carving out a very market-specific career niche.

Bob Turan '68 has a B.S. in psychology and has successfully used the office twice for market information and placement leads.

The first time Turan came back to campus for career information was twelve years ago when he was relocating to the Capital District from Washington, D.C. Back then, volunteers, mostly retired alumni, worked in a small office in the Pittsburgh Building matching alumni with prospective employers. He says, "That was the start of a chain of contacts that resulted in a terrific job!"

Now that his professional career has taken him out of the area and back once again, Turan is retracing his footsteps and making Alumni Career Services a key part of his networking efforts.

"The center has grown tremendously since I was here last," says Turan. "The computers, the many volumes of information in the resource room, and the spacious office facilities are very impressive. But really it's the dedication and enthusiasm of the people—Vicki, Tom and the staff—that make the center such a valuable resource."
A Gulliver's-Eye Look at Office Lighting

Office workers six inches tall could transact business, greet clients, and do clerical work in the Lilliputian environment created by Rensselaer's Lighting Research Center (LRC).

In this miniature office, researchers can measure the effect on occupants of tinted window glazing used to conserve energy and enhance building appearance.

"When you buy glazing, you may be buying a whole package of things that the people who work in the building may or may not desire," said Peter Boyce, visiting research professor of architecture and adjunct professor of psychology. Research with the model office will help determine how glazing affects individual perceptions of color, brightness, lighting intensity, or even the chances of rain, Boyce said.

Research subjects thrust their heads into the tiny world. In response to different window glazings, they describe colors, assess weather, or adjust the lighting. An artificial sky lets technicians change daylight, time of day, and season.

This view from the inside gives researchers a better picture of reactions to glazing, which is normally considered only in terms of energy savings, Boyce said. If office workers respond to a particular glazing by turning up the lights or becoming less satisfied with the office, the result could be negative, he added.

The Class of 1991 unveiled its gift to the campus at a ceremony May 15. The gift, a granite monument engraved with the Institute logotype, stands on the Rensselaer Union lawn near the corner of 15th Street and Sage Avenue.

KODAK INVESTS $1.5 MILLION IN THE FUTURE

The Eastman Kodak Company has awarded Rensselaer a 10-year grant of $1.5 million for three programs that address social issues of national importance.

The company has decided to invest the money as follows:

- $1.25 million to endow a chaired professorship in environmental studies.
- $170,000 for need-based scholarships for qualified minority students from Rochester, N.Y., high schools.
- $80,000 to place a Technology Awareness Module in a Rochester high school this fall.

The TAM, developed by the Center for Advanced Technology in Automation and Robotics, is a working model of a state-of-the-art manufacturing system.

"Kodak's support for these initiatives will help Rensselaer address these major national issues," said Rensselaer President Roland W. Schmitt.

"By supporting minority students from Rochester and by placing a Technology Awareness Module in Rochester, Kodak is taking precisely the kinds of steps industry must take to help ease the terrible shortage of young people, especially minorities, who are interested in science and engineering," Schmitt said.

"And support for a faculty member and associated research on environmental science or engineering will help Rensselaer focus scholarly activities on issues that will remain vital into the next century," he added.

"College graduates with background and training in technical skills are essential to our nation's economic well-being in the decades to come," said Lawrence J. Matteson '65, senior vice president and general manager of Kodak's Electronic Imaging Division. "Industry must do everything it can to motivate students from diverse backgrounds to pursue careers in a broad range of technical disciplines."

The grant will be counted toward the $200 million goal of Rensselaer's New Century Campaign.
Copper Possible Key to New 3-D Computer Chips

If copper makes you think of pennies, you may not consider it valuable. But researchers in the Sematech Center of Excellence (SCOE) at Rensselaer are demonstrating that copper can be the key to powerful new three-dimensional computer chips.

Two years ago, the SCOE received a five-year, $5 million contract from Sematech, a consortium of U.S. semiconductor firms, to develop a four-level metal interconnect system for use in 1993 and beyond. SCOE researchers at Rensselaer and at the State University of New York at Albany are collaborating with Colorado State University, the University of North Texas, and Sandia National Laboratory. They are reporting extremely encouraging research results, especially in the technology that will let manufacturers replace aluminum connections with copper.

Shyam P. Murarka, professor of materials engineering and co-director of the SCOE, said four-level computer chips will be faster and will have far greater memory than current chips. At present, most chips are laid out in two dimensions—devices are arranged on a flat substrate. At best, they contain two levels.

“This requires a lot of real estate on the chip,” Murarka said. “Interconnections become too long, which slows down the device. Our goal is to use the third dimension to reduce the length of the interconnections and save area on the chip.”

Current technology has pushed materials now in use to their physical limits, he said. Aluminum, now used for the connections between chips and between the devices on a chip, has problems in four-level chips.

Its relatively high electrical resistance slows down the flow of electrons. The resistance also creates heat that becomes increasingly troublesome as the devices on a chip are packed more tightly. In addition, the low melting point of aluminum makes it less useful due to diffusion-induced instabilities.

Copper has lower resistance and will function well even if lines are thinner. But copper reacts chemically with silicon and causes electrical problems. To use copper, chip designers must learn to prevent this reaction, and they must develop practical manufacturing techniques that will use copper on dielectric layers away from the semiconductor.

SCOE researchers are studying barriers that can be used between copper and silicon dioxide, the preferred dielectric layer. In a major breakthrough, they have developed a way to lay down extremely pure layers of copper through chemical vapor deposition (CVD) at temperatures of 200-400 C. They have also developed ways to etch thin lines of copper on chips, and they have demonstrated the possibility of laying down thin lines of copper selectively, eliminating expensive etching.

Brand Challenges Higher Ed

Myles N. Brand ’64, president of the University of Oregon, delivered the First Rensselaer Alumni Association Lecture by a Distinguished Alumnus on the afternoon of May 17. Earlier in the day he was awarded an honorary doctor of humane letters at Rensselaer’s 185th Commencement.
Brand, who earned his B.S. in philosophy at Rensselaer and Ph.D. from the University of Rochester, has continued to teach and write in the field of moral and social philosophy. In his address, Brand challenged his audience to consider “What’s Broken in Higher Education Today, and How Do We Fix It?”

According to Brand, the 1990s will be a time of radical change. There will be a 30 percent increase in the number of 18-year-olds by the end of the decade, large numbers of faculty will retire from teaching, and student bodies will reflect the general population's increasing racial and ethnic diversity.

At the same time, he sees the academic community under fire. What Brand calls “the academy’s fall from grace” due to charges of scientific misconduct, questions of political correctness and free speech, a rising climate of anti-elitism and general alienation of faculties will force a “sorting out of institutes of higher education. They’re either going to get much better or much worse,” he predicted.

What can be done? Brand recommends that universities not try to do everything. They must get very focused and “find a market niche.” They must bring ever-increasing budgets under control and at the same time develop new revenue sources and continue entrepreneurial activities such as research parks. They must take better advantage of their endowments and manage themselves more efficiently. Most important, he says, “We must reemphasize undergraduate teaching. That’s a key part of our mission. We must bring back the perception of the importance of higher education.”

A new, full-color map of the Rensselaer campus was produced this summer. Drawn accurately to scale, the aerial view shows the entire campus, with its 120 buildings, roadways, walkways, and inevitable stairways.

With the new map, visitors and newcomers to Rensselaer will have an easier time finding their way around. Virtually every building is instantly recognizable and is cross-referenced in a numerical and alphabetical key. Parking lots, access for the handicapped, and major landmarks are also clearly marked.

Finding the right company to produce the map was not so easy. “We needed to produce a new campus map, and to increase readability, we wanted it drawn from an aerial perspective,” said Meg Knight, director of publications. “Our problem was that companies that produce such maps on CAD/CAM systems charge up to five times what we had in our budget. We had all but given up when we found our answer right here in Troy, not a ten-minute walk from the Pittsburgh Building.”

Mark Patrizio ’83, owner of Kemp Building Graphics on Fifth Avenue in Troy, and his associate, Steve DiSorbo ’82, took the project from concept to completion in less than four months. Using the photoperspective method, Patrizio and DiSorbo produced “more than a map, a work of art,” according to Debra Townsend, director of news and communications.

“This map is a beautiful and practical way to show the university, not only to newcomers, but to alumni and others interested in how we’ve grown and developed,” Townsend said. “We’re especially pleased that it was created by an alumnus.”

Patrizio, a graduate of the School of Architecture, explained that his familiarity with the campus was an important advantage throughout the project. “I wanted to make the map as accurate as possible, while at the same time conveying the warmth and beauty of the greenroof campus,” he said.
BARTON AND CAMPBELL NAMED TRUSTEES

Rensselaer's board of trustees elected Cornelius Barton '58 and George Campbell Jr. to the board at its meeting May 18.

Barton is president and chief executive officer of Dorr-Oliver Inc., a designer and manufacturer of machinery for specialized processes including liquid-solid separation and thermal processing for the food, environment, mineral, pulp and paper, and chemical industries. He received his B.S., M.S., and Ph.D. degrees in metallurgical engineering at Rensselaer.

Barton also has been active as city manager for the Southern Connecticut Region for Rensselaer's New Century Campaign. He is a past national chair of both the Rensselaer Fund and the Patroons and is a recipient of the Rensselaer Alumni Association's Albert Fox Demers Medal.

Campbell is president of the National Action Council for Minorities in Engineering Inc. (NACME), a nonprofit corporation dedicated to developing the pool of engineers needed for the nation's workforce. NACME conducts research in education, develops precollege and university enrichment programs, and provides scholarships and grants.

Campbell earned a B.S. in physics from Drexel University and a Ph.D. in theoretical physics from Syracuse University. During 12 years at AT&T Bell Laboratories, he developed models of the radiation environment in the earth's magnetosphere and studied radiation effects on satellite components. He has published papers in mathematical physics, high energy physics, satellite systems, digital communications, and human resources development.

He serves on the Advisory Board of the U.S. Secretary of Energy and is a member of the AAAS Committee on Science, Engineering and Public Policy.

Schmitt Warns Congress: Research System Threatened

Allegations that some universities have inappropriately charged the federal government for research overhead costs have been the subject of widespread controversy, publicity, and Congressional hearings in recent months.

Rensselaer and other research universities charge the government for "indirect costs" associated with federally funded research. These costs typically cover goods and services associated with research but not directly linked to it, such as janitorial services and utilities.

In his testimony before the Subcommittee on Science of the House Committee on Science, Space, and Technology, Rensselaer President Roland W. Schmitt said the recent controversy obscures other important issues and threatens the U.S. academic research system.

Calling for the speedy establishment of fair overhead rates, Schmitt told the subcommittee that in his opinion, academic research provides "enormous" benefits to industry in new ideas and in talented scientists and engineers while it also benefits universities by generating knowledge and enhancing education.

Universities, he stressed, make no money from research—they subsidize it, as they do teaching, from gifts and endowment. Of $24 million in income from sources other than tuition and research, Rensselaer uses $17 million to subsidize education and $7 million to subsidize research.

Nationally, Schmitt added, some 18 percent of total research funding is provided by universities themselves, and that percentage is growing compared to government support for research.

Schmitt described how Rensselaer's overhead rate, which is "lower than some others that have been publicized lately," is computed and how it has been "slashed" in recent years.

He pointed out that many other universities are striving to cut administrative costs as Rensselaer has and warned that "the scales of public confidence can be tipped against us [academia]. Our academic research system must be preserved and strengthened. The academic community must vigorously and quickly correct any aberrations in its systems of accountability."

Shock-Free Flight at the Speed of Sound

Mathematicians at Rensselaer have designed a theoretical three-dimensional shape that can fly at transonic speeds without creating a shock wave.

Although the shape is not immediately useful for aircraft design, the method is theoretically interesting and may one day lead to more efficient planes, according to Julian D. Cole, professor of mathematical sciences, who presented the discovery at a conference in Sweden.

Cole, who is known for his work in applied mathematics in aeronautics, and Donald W. Schwendeman, assistant professor of mathematical sciences and winner of a 1991
President of the year award, who specializes in computational fluid dynamics, are researching shock-free designs with funding from the Air Force Scientific Research Office.

Schwendeman explained that the word "transonic" describes flight roughly at the speed of sound. Slower speeds are subsonic, and faster are supersonic.

When a plane flies at transonic speeds, the speed of sound is actually exceeded at some specific areas of its surface, such as where airflow over the wings. Shock waves develop in these areas, causing drag and forcing the plane to burn more fuel to move forward.

Cole and Schwendeman are seeking optimal designs that would weaken or eliminate these waves.

Previously, mathematicians had designed theoretical two-dimensional shock-free flows, but Cole and Schwendeman were the first to design a theoretical three-dimensional shock-free body.

Their solution is a slender, symmetrical body. They now are working on the more complicated mathematics necessary to design nonsymmetrical and thicker bodies.

Call for Nominations
1991 Rensselaer Entrepreneur of the Year

Nominations are now being accepted for Rensselaer's second annual Entrepreneur of the Year award. The award honors an alumnus who has demonstrated high achievement in entrepreneurship and has provided insight into and inspiration for the entrepreneurial process. Last year's award winner was Dr. William Mow '59, founder of Bugle Boy Industries and a Rensselaer Trustee.

Nominations, letters, and support materials may be sent before September 30 to:
Dean Robert Hawkins
Lally Management Center
Rensselaer Polytechnic Institute
Troy, NY 12180

WILLIAM E. BOYCE, professor of mathematical sciences, and S. MICHAEL HALLORAN '73, professor of rhetorical theory and communication and associate dean of the School of Humanities and Social Sciences, received the William H. Wiley Distinguished Faculty Award. The award honors excellence in teaching, research, and overall commitment to the education process.

HOWARD M. BRANDSTON, adjunct professor of architecture, received the International Association of Lighting Designers' highest honor, the Award of Excellence, for the lighting design at the new Bulgari jewelry store on Fifth Avenue in New York City.

WAYNE G. ROBERGE, assistant professor of physics, received the Early Career Award, funded and awarded by the Rensselaer faculty to honor excellence in teaching and research. Roberge studies computational physics, using computers to simulate phenomena that cannot be observed in the laboratory or readily be found in the universe.

CHAN I. CHUNG, professor of materials engineering, received the first President's International Service Recognition Award, from president Roland W. Schmitt. He was honored for his role in advising Korean graduate and post-doctoral students.

ARTHUR C. SANDERSON, chairman of the department of electrical, computer, and systems engineering, has been elected a fellow of the Institute of Electrical and Electronics Engineers (IEEE).

KATRIN A. GAMBLE, M.S. '89, coordinator of student life research, was elected to Sigma Xi, the national society devoted to the encouragement of research in pure and applied science, as an associate member.

HARVEY R. STONE has been appointed director of the Rensselaer Satellite Video Program. Stone had previously served as special assistant to the president for economic development and technological outreach at the University of Delaware where he oversaw the funding and design of the university's videoinstruction delivery system.

HOWARD KAUFMAN '62, professor of electrical, computer, and systems engineering, received the Jerome Fischbach Faculty Travel Grant. Kaufman, who conducts research on systems that operate in the presence of uncertainty, will attend the European Control Conference in Grenoble, France, and the Ninth International Federation on Automatic Control Symposium on Identification and System Parameter Estimation in Budapest, Hungary.

ROBERT RESNICK, professor of physics and Hamilton Distinguished Professor of Science Education, has been elected to the Council of the Textbook Authors Association; has been named advisory editor in physics for Macmillan Publishers; has been appointed to the U.S. advisory board of Quantum, the joint U.S.-U.S.S.R. student magazine of math and science; and has been chosen to serve on the American Physical Society's Ager Award Committee, which selects the outstanding U.S. undergraduate physics researcher.

ARNOLD COGSWELL, Rensselaer Trustee, was presented the 1991 Higher Education Service Award, by the Hudson Mohawk Association of Colleges and Universities Board of Trustees. The award recognizes exceptional service to one or more institutions of higher education. Cogswell is president of the J.A.B. OVERSIGHT Corporation.

JOHN F. DOJKA, institute archivist and head of special collections, has been appointed to a three-year term on the American Institute of Physics' Advisory Committee for the History of Science.

ROLAND W. SCHMITT, president, has been elected to the Engineering Academy of Japan (EAJ) as a foreign associate. Schmitt is one of 24 foreign associates who have received this honor. Established in 1987, the EAJ is a nonprofit organization with over 500 members including leading executives, government officials, and academics who have made outstanding contributions to engineering and technology.

OWEN C. JONES JR. '66, professor of nuclear engineering and engineering physics, received the 1991 Fred Merryfield Design Award from the American Society for Engineering Education (ASEE).
BUDDY POWERS
TAKING CARE OF BUSINESS
BY AL SHIBLEY AND ERIN O'BRIEN

In the bone-bruising, high-sticking, board-crunching world of college hockey, tempers fly faster than ice chips and reputations are made and lost in the flick of a wrist shot. In this sport, known less for its intelligence and reason than for its speed and brute force, Rensselaer hockey coach Buddy Powers bucks the coach stereotype by operating with good-natured grace and businesslike rationality.

A hockey player for virtually all his life and a former professional, Powers doesn’t fit the player stereotype either. First of all, he’s compact at 5’8”, balding but still boyish. He has a smooth face, and his teeth appear to be his own.

Powers came to Rensselaer in 1989 after one year as head coach at the Rochester Institute of Technology. Here, he inherited a difficult situation replacing the controversial but successful Mike Addesa. The Engineers had won two Eastern College Athletic Conference (ECAC) championships and two NCAA Division I championships under Addesa. And when Powers arrived, the last NCAA win in 1985 was still fresh in the fans’ minds. Winning had, however, created perhaps unrealistically high expectations.

Powers understands high expectations, but in his two seasons here, he has implemented a program to achieve his own goals for the team. These goals are not based solely on winning. They’re based on competing, on creating opportunities, on making the most of his players’ talents.

“Our goals are the same every year,” says Powers. “Our basic goal is to finish in one of the top four positions in the ECAC standings and earn a home-ice berth in the first round of the ECAC Tournament. We want to make it to Boston Garden (for the ECAC Tournament), win the RPI Invitational, and we want to win more non-league games.”

Bob Ducatte, Rensselaer’s director of athletics, heartily supports this strategy. “We want to compete for the ECAC championship and the NCAA championship,” he says. “We know that won’t happen every year, but it’s our goal. It’s like Notre Dame’s strategy. They set out to win the NCAA football championship every year. They’ve actually won it maybe three times in 35 years, but that’s always their goal.”

What is Powers’s strategy for reaching his goals? “I tell my players that you have to take care of business,” says Powers. “If you work hard and do the things expected of you,
everything else will take care of itself. There's no secret formula for success.

Powers has never been one to expect instant success. The youngest of eight children born to a working-class family in the Boston suburb of Hyde Park, Powers remembers that his father always worked two jobs. While his four brothers went into the military after high school, he went to Boston University on a hockey scholarship—the first in his family ever to go to a four-year college.

He played professional hockey in West Germany for three seasons, then returned to the States to launch a coaching career. He started at Colgate as an assistant to Terry Slater, then went to Bowling Green as chief assistant to Jerry York. Along the way, he developed his own coaching style, one that relies on a trusting attitude to build motivation and seeks to create opportunities to win.

A number of colleges have been impressed with the Powers style, and for a time this spring, he was being courted by Northeastern University. The job was tempting, but he says that he and his wife, Lindy, are happy with the quality of life here, especially since it allows him to spend more time with their children, John (4), Barbara (3), and Caroline (6 mos.).

A lot of Rensselaer people were relieved recently when Ducatte announced that Powers's contract had been extended until 1994.

Listening to Powers, it's clear he's devoted to the business of coaching. In fact, his coaching philosophy is strewn with business metaphors. He's fond of saying, "A team is like a company. You have management, and you have staff. Our product is winning hockey games. In order to create that product, everybody has to play a role."

He believes that motivating players to play their roles means helping them set their own goals and getting them to take risks. "If you care about winning, you have to take risks. But I don't ask players to do anything they aren't equipped to do."

"Buddy treats us like men and expects us to act like men," says Todd Hilditch '92, a defenseman from Vancouver, British Columbia.

Ivan Moore '92, a forward from Summerland, British Columbia, and captain of the 1991-92 team, explains, "Buddy has a few basic rules, and the rest is common sense. He believes we're responsible enough to do what's expected of us. And he gives all of us a lot of responsibility."

Bob Ducatte likes the way Powers works. "He charts a course and the players follow it. Buddy is not an authoritarian, but there's no doubt who's in charge. It's not just that he knows hockey, he also understands the academic demands on the players."

"The mix of athletics and academics is a little different here," Powers says. "The students and the curriculum are heavily directed toward math and science." He emphasizes to potential players Rensselaer's curriculum and reputation. This approach helps attract players such as Hilditch, who said he chose this school "because of its educational opportunities."

Rensselaer's academic standards do, however, reduce the pool of eligible players and make it a little harder to build a winning team, Powers says.

"Recruitment can be frustrating at times," he says. "The athletes have a choice. Most of the guys we recruit for Rensselaer can get into virtually any school in the country. We have to sell them on the value of the education here. We tell them that they can play against the best college hockey teams in the country while receiving a top-notch education."

Powers believes that athletics are an important part of student life at Rensselaer. "You learn to compete and to accept defeat as well as victory," he says. "Athletes in individual sports, like golf and tennis, learn to get by on their own merits. But team sports teach you the value of working together with others to achieve a common goal. Those lessons carry over to personal and professional situations after graduation."

Ivan Moore agrees that the rewards are worth the effort. "The friendships I've made, the experiences I've had, the places I've seen, and the things I've accomplished are great preparation for the business world."

Powers knows that his team isn't necessarily the most talented. But he points out that the most talented teams don't always win. "Clarkson proved it last season. They certainly didn't have the most talented team in the country, but they made it to the final four of the NCAA Tournament."

Powers thinks that hard work, practice, and preparation for winning made the difference.

"Hockey is a simple game," Powers says. "Some coaches get caught up in the technical aspects of the game. My job is to run an up-tempo, structured practice to prepare the players to make decisions in game situations. The preparation to win takes place in practice. When it's game time, the coach has to let the players play."

When Powers says "let the players play," what he's really talking about is creating a context of freedom tempered with responsibility. Brow-beating, harsh criticism, fear, and domination are just not his style.

When he was at Colgate under Terry Slater, Powers learned that he worked best when expectations were high but realistic and when he was given the freedom to determine how best to meet those expectations. That's basically how he runs the Engineers. In his two seasons here, Powers has achieved a 39-26-2 record with many of the same players who had lost 52 of 97 games in the previous three seasons.

Ivan Moore thinks Rensselaer will surprise a lot of people in the ECAC this year. "This team's got a lot of character. If we keep a good attitude, we'll be winning a lot of games. We've got a good group of juniors and seniors who'll be helping prepare the younger guys for the future. This team could be great in two years. But our main goal is to finish in the top four in the league and make it to the Boston Garden this year."

Powers, who sees life as competition with no guarantees of success, is making no promises or predictions. "You work hard. You take care of business. And the winning takes care of itself."

RENSSELAER 13
Callipus Hosts Spirited, Reunion '91 painted campus with the colorful stories of seven decades of alumni renewing friendships and reacquainting themselves with a changed Rensselaer.

Nowhere was this picture of old blending with new more apparent than in the Heffner Alumni House, where classmates congregated in one of campus's newest buildings, itself a testament to the vitality of Rensselaer's alumni.

Almost 1,300 people passed through the alumni house the weekend of May 16-19, including more than 750 alumni, 30 percent more alumni than had attended the previous reunion.

Of the 13 returning classes, the Class of '41 enjoyed a record 43 percent attendance as they celebrated their 50th reunion, from a kickoff Chinese dinner to their induction into the 50 Year Club.

All classes contributed to the colorful Parade of Classes with floats, bands, and ever more savvy bribes to the parade judges. The Class of '81 took the honors for Best Overall Appearance, attesting to their spirit, enthusiasm, and creativity; the Class of '86 earned Best Float honors for their depiction of "86 Field of Dreams," and the Class of '61 earned the judges'
Colorful Reunion

approval for Best Bribe: bagels, cream cheese, and a half case of champagne.

Following the parade and a festive picnic held in the Alumni Sports and Recreation Center, Ev Molony '63, national reunion gift chair, presented President Roland Schmitt and his wife, Claire, with a check for $835,097, representing the total giving to date for the year by alumni in all reunion classes. Like the attendance total, this too represented a 30 percent increase over the previous year.

Alumni interested in campus and academic updates could choose from a range of discussions and tours held throughout the weekend. Faculty discussed environmental issues, entrepreneurship, and the world economy. Alumni boarded buses for a tour of the Rensselaer Technology Park in North Greenbush. Others crowded the always popular physics "Magic Show." And the Rensselaer Alumni Association sponsored its first annual RAA Lecture. The inaugural speaker was Myles Brand '64, president of the University of Oregon, whose topic was "What's Broken in Higher Education Today, and How Do We Fix It?"

From new gatherings, such as this year's reception for alumnae, to the traditional class dinners, Reunion '91 framed a lively exchange of alumni stories. And from the opening party and dedication of the alumni house donor plaque to the farewell brunch, the Heffner Alumni House provided the perfect setting for classmates to reunite with friends and alma mater.
RAA Honors Distinguished Alumni and Friends

David Diltz '38 was awarded the Rensselaer Alumni Association’s highest honor at its fifth annual Alumni Association Awards Dinner, which took place May 17 during Reunion '91.

Rensselaer President Roland W. Schmitt presented Diltz with the Distinguished Service Award.

Three alumni were awarded the Albert Fox Demers Medal for their outstanding efforts on behalf of the alumni body.

Cornelius Barton '58 was cited for his leadership as national chair of both the Patroons and the Rensselaer Fund, chair of the Southern Connecticut Regional Campaign Committee, and member of the Livingston Houston '13 Society of Patroons.

William Shuster '39 was recognized both for his dedication to students as a long-time faculty member and for his service to alumni as secretary of the 50 Year Club, reunion co-chair and secretary for his class, and volunteer member of the alumni relations staff.

Alex Young '58, noted for his "infectious enthusiasm and devotion to the Institute," was honored for his service as president of the RAA, national chair of the Patroons and a member of its P.C. Ricketts Society, and active member of the Rensselaer Club of Greater Cincinnati.

Robert Longbine '46, who was unable to attend the ceremony, will be presented with a Demers Medal next year.

The Alumni Key award, which recognizes outstanding service to Rensselaer through any alumni activity, in particular with clubs and classes, was presented to Howard Blitman '50, Richard Chen '71, Kenneth DeGhetto '50, William Duggan '80, David Goodman '39, Betty West Lurie '75, Philip Lurie '74, Raymond Parker '77, and Charles Schutz, campus liaison and recruiter for the Jet Propulsion Laboratory. Mark Feinstein '77, unable to attend the 1990 ceremony, also received an Alumni Key.

The alumni relations staff created a Director's Award in 1984 to recognize individuals who are particularly supportive of their efforts. This year they presented a director's chair to Kenneth Bienstock '81, Alan Mingo '84, David Oroshnik '85, Associate Dean of Students Jacqueline Peterson, Janet Rutledge '83, and Paul Sicard '79.

Also at the ceremony, Carl Westerdahl, director of constituent programs, read the citation for the RAA's Outstanding Faculty Award, which had been presented to Edith Luchins earlier that day. She was recognized for her "exceptional contributions to the education of students, for her commitment to women and minorities, and for her devotion to the welfare of the faculty."

Diltz is the 23rd recipient of the award, which was created in 1967 to recognize truly distinguished service to Rensselaer, to a profession, to the nation, or to humanity.

Diltz, who is vice president emeritus of the RAA, was cited for his long career of volunteer service to the RAA, the Rensselaer Council, the Rensselaer Club of Los Angeles, his class, and the Patroons. (See Class of '38 column, page 18.)
Class Notes Deleted for Privacy Concerns
The Last Word

Carl Westerdahl served as director of alumni and community relations at Rensselaer for nine years. On July 1, he accepted the position of director of constituent programs, in which he will direct an enhanced community relations program throughout the Capital District for the Institute and will inaugurate a relatives program to communicate with parents, grandparents, and siblings of Rensselaer students. He came to Rensselaer in 1969 as assistant dean of students and served as dean of students from 1976 until 1982.

After nine years as director of alumni relations at Rensselaer, my last task is to write the "Last Word" for the last page of the alumni magazine. It has been a great privilege and pleasure for me to work with the wonderful women and men of the Rensselaer Alumni Association. What has been accomplished is due to teamwork, commitment, and dedication on the part of alumni volunteers and staff. The months and years ahead will determine which things we have done are of lasting value and which others were appropriate for the time but require changing.

After 21 years at Rensselaer, I've found it's always best to talk about the future. Our past is just an overture to the next act and no matter what we've accomplished, we're always looking for ways to do things better.

So what does the future hold for the alumni and alumnae of Rensselaer and their organization, the Rensselaer Alumni Association? In my opinion it is the challenge of diversity. Simply stated, how do we keep the members of the alumni body, who have had a wide variety of experiences as members of the Rensselaer community, focused on and committed to the goals and objectives of a changing Rensselaer?

Living alumni span over 75 years of Rensselaer history. The institution of today reflects changes in the demographics and social attitudes of society as a whole. Many alumni have great difficulty accepting these fundamental changes that have altered the social nature of the Institute. The alumni association has a duty to help graduates appreciate and understand that while the face of Rensselaer is changing, as are the times, the fundamental mission of Rensselaer has not changed.

If the RAA's influence is used without a sense of vision and cooperation, then the association and the institute will lose.

Today, for most students, Rensselaer is not a single experience but a "crazy quilt" of opportunities and events shaped by one's major, gender, living situation, race, hobby, sexual preference, etc. Except for the first and last few weeks at school, there is little bonding in a common tradition among all students. The strongest bonding occurs within the myriad categories, clubs, and cliques that make up the campus community. Therefore, how will graduates of this rich mosaic of experiences support the core institution that is Rensselaer? Will we harness the energy, vitality, and strength each person brings to the table or will we dissolve into chaos? We cannot afford an association devoted to narrow interests at the expense of the whole.

The racial and ethnic demographics of our future are clear. Rensselaer must and will become an increasingly diverse community. How will this transition take place? What role will alumni play in making this change not only smooth, but dynamic and exciting?

The world is becoming the address of our alumni. How will we communicate? What new opportunities are there for these globetrotting graduates to contribute to Rensselaer as a worldwide institution?

Today the RAA clearly has a role, along with other constituents of the university, in helping to shape Rensselaer's future. If the RAA's influence is used without a sense of vision and cooperation, then the association and the Institute will lose. However, with your concern, time, and constructive commitment, Rensselaer and the association will meet the challenges of the future with confidence—the confidence that has characterized graduates of this institution for almost 200 years.
TRAIDITIONAL EVENTS
RSBE/SHPE Career Fair '91
The 13th Annual Career Fair sponsored by the Rensselaer Society of Black Engineers and the Society of Hispanic Professional Engineers will bring to campus over 100 companies interested in recruiting. It will be held in the Alumni Sports and Recreation Center on Saturday, October 26th from 10 a.m. to 4 p.m. It is open to the entire Rensselaer campus and alumni community.

Football Game
Versus the University of Rochester on the '86 Field at 1:30 p.m. Last year's team posted the best record in 50 years - 6 wins, 1 loss, 2 ties - and the key players are back. Come out and cheer them on!

Fraternities/Sororities
Alpha Chi Rho, Alpha Phi Omega, Phi Kappa Tau, Pi Kappa Alpha, and Sigma Chi have already made plans. Of special note is the 40th Anniversary Celebration of the Rho Pi Chapter of Alpha Epsilon Pi on Saturday featuring outdoor activities and an evening Semi-Formal Dinner/Dance.

Athletics
The Third Annual Football Alumni Reunion is set for Friday evening, and the alumni Lacrosse game and Baseball Reunion will take place on Saturday.

NEW OFFERINGS FOR YOUNG ALUMNI
Professional Leadership Skills Workshops And Luncheon
Five workshops to help you get ahead in your career:
- Effective Teamwork
- Sweat-Free Public Speaking
- Motivating Good Performance - Confronting Poor Performance
- Career Planning - How to find a job you love, or love the job you found.

• Running Effective Meetings
  Young professionals need all the help they can get to advance their careers in these times. The workshops sponsored by the Rensselaer Alumni Association will be held on Saturday, October 26th from 10 a.m. to 12:30 p.m. at the Heffner Alumni House followed by a luncheon with an outstanding speaker - all for $35.

  Taught by faculty, staff, and volunteer alumni who have made careers in management consulting, these are hands-on, how-to workshops that will give you skills you can put to use the following Monday morning. A mailing will be sent to most alumni up to 10 years out by Sept. 20th.

If you would like to help your Class officers plan a special activity or event for your class, call one of them or the Office of Alumni Relations.

Fall Festival Supper
Come to the Heffner Alumni House Saturday evening between 5 and 7 p.m. for an informal meal before going on to other activities.

The Heffner Alumni House - located at Peoples Avenue and 14th Street - will be headquarters for information about the weekend. Register there for the free drawings for some really special gifts, and pick up your free alumni pass for the Rensselaer Model Railroad exhibit.

FOR MORE INFORMATION
The Heffner Alumni House - located at Peoples Avenue and 14th Street - will be headquarters for information about the weekend. Register there for the free drawings for some really special gifts, and pick up your free alumni pass for the Rensselaer Model Railroad exhibit.

Watch for announcements in the mail from your special group.

For more information about any of the weekend activities, call Irene Wynyczuk at the Office of Alumni Relations (518) 276-6205.
Look for a Very Special Delivery Dropping into Your Mailbox Soon.

Rensselaer

Rensselaer Polytechnic Institute, Troy, NY 12180-3590