

Spring 2004

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Echoes Staff

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ROSE-HULMAN INSTITUTE OF TECHNOLOGY

Echoes

Spring 2004

Vol. 2003-2004, No. 2

Historic Transition

John J. Midgley Named as 12th President



PRESERVING HIS HERITAGE

Alumnus Leads Move for African American Museum

A PAPERLESS CLASSROOM?

Faculty Experiment with Mobile Technology





heard in the halls of Moench

“ You don’t have the official Rose-Hulman hairdo yet,
but I’m sure that you will. ”

— *President Samuel Hulbert, who could be classified as bald,
welcoming John Midgley, who currently has a full head of hair, as the
12th president of Rose-Hulman.*

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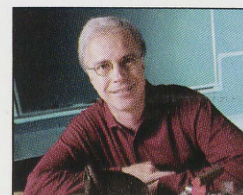


ON THE COVER

Photographer Shawn Spence captured the past, present and future of Rose-Hulman's leadership during the announcement of John J. Midgley as the college's next president. Midgley, left, and current president Samuel F. Hulbert were photographed with a portrait of the college's founder Chauncey Rose looking behind them.



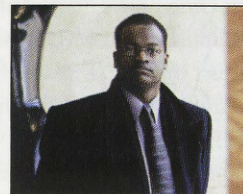
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JOHN J. MIDGLEY TO BECOME 12TH PRESIDENT OF ROSE-HULMAN

HISTORIC ANNOUNCEMENT

BY DAVID PIKER

The setting emphasized the historic nature of the event that was to occur. A portrait of Rose-Hulman's founder, Chauncey Rose, hung prominently in the room, amidst his personal furniture from the 19th century. As media and representatives from the Rose-Hulman community gathered in the Heritage Room of the Hulman Union for a news conference, they were aware that a historic announcement was forthcoming.

For the first time in 28 years, the person who was to become the next president of Rose-Hulman Institute of Technology was to be named.

At 10:30 a.m. on Feb. 9, Trustee Chairman Clyde Willian announced that John J. Midgley had been chosen to be the 12th president of Rose-Hulman to succeed retiring President Samuel Hulbert. The last time such an announcement occurred was Oct. 3, 1975 when Board Chairman Benjamin Cox confirmed that trustees had selected Hulbert to succeed John Logan, who would retire August 31, 1976, after serving 14 years as the college's president.

Willian said the Board of Trustees and its executive committee unanimously approved the recommendation of the presidential search committee to select Midgley from a field of national

candidates. "I want to sincerely thank the search committee and the entire campus community for their tireless efforts and sincere input that were essential for the selection process to be successful," said Willian, who chaired the search committee.

"Rose-Hulman has selected a new president who has the leadership, strategic thinking and global experience in education and business that are needed to build upon the tremendous progress that has occurred during the outstanding presidency of Samuel Hulbert," Willian stated.

Midgley brings teaching, strategic planning and global technical business expertise

Midgley, 49, who will assume the presidency on July 1, was selected after a 10-month nationwide search. The process to recommend a new president to the trustees was coordinated by a 17-member search committee. Committee members represented alumni, faculty, staff, students and trustees. Four finalists visited campus in late January. Each finalist completed a two-day schedule of campus meetings that included an open forum during which members of the campus community could ask questions of each finalist.

Midgley has an extensive background in developing innovative learning and academic administration technologies, and in successful strategic planning to launch and grow technology-related businesses on a global scale.

He has received outstanding teaching awards as a faculty member at Carnegie Mellon University and the University of Pittsburgh. Midgley was an associate professor at the United States Military Academy at West Point, N.Y., where he taught undergraduate engineering students and also directed the Academy's National Security Seminar.

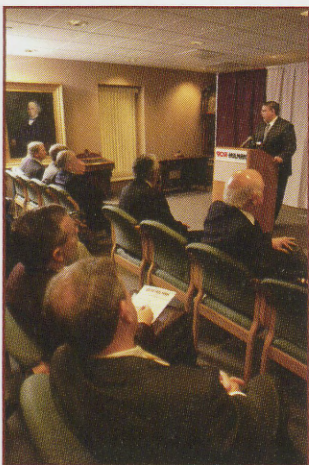
Midgley is managing partner for Roland Berger Strategy Consultants, the world's leading strategy firm of European origin that serves corporations, non-profit and public institutions. Midgley focuses on the firm's global technology strategy clients.



From left, Midgley, Hulbert and Willian visit prior to news conference announcing Midgley's selection as Rose-Hulman's next president.

Midgley joined Roland Berger from Commerce One, where he was vice president of knowledge services and led a team of engineers to create and deploy knowledge management software and related services.

Prior to joining Commerce One, Midgley was one of five leading Ernst & Young consulting partners who established the firm's Asia-Pacific Global Client Consulting group. He designed and led Ernst & Young's first leadership development programs for the firm's senior executives.



Midgley addresses news conference.

During his opening statement to those assembled, Midgley said, "I can't imagine a more exciting, a more important, a more meaningful challenge than leading this wonderful institution, following on the tremendous legacy of one of the most distinguished educators in America. I take up this challenge with a great deal of humility and look forward to helping this great institution reach the next level of its evolution," he stated.

"One thing is very clear. The focus on undergraduate education of outstanding young scientists and engineers is the bedrock of the institution," he emphasized. "It's where the faculty has focused and where they are distinguished beyond any faculty in the United States or the world."

Midgley said Rose-Hulman's national reputation for excellence and the importance of educating scientific and technical graduates to insure America's global competitiveness were among the reasons he was attracted to Rose-Hulman.

"I believe there are few things more important to our country's future than the activities that go on each day at this campus to educate bright students who will be the next generation of technical and scientific innovators and problem solvers," he emphasized.

"President Samuel Hulbert has led Rose-Hulman to remarkable achievements. I greatly admire what he has accomplished and how he has created the vision for Rose-Hulman to be the very best. Each day I will work with this special campus community to insure that together we continue to make progress toward that vision," he said.

Midgley is a 1976 honors graduate of the United States Military Academy where he earned a bachelor of science degree. He received a master's degree in public policy from Harvard University and earned the Ph.D. from the Massachusetts Institute of Technology in 1985.



Midgley and Willian share a light moment during question-and-answer session.

A native of Pittsburgh, Pa., Midgley was a commissioned officer in the United States Army and served in staff roles on the Army General Staff, the Strategy Plans and Policy Directorate of the Organization of the Joint Chiefs of Staff, and the U.S. Mission to NATO. He is a graduate of the Command and General Staff College. Midgley was awarded the Meritorious Service and the Army Commendation medals.

Midgley and his wife, Ellen, are the parents of three children: Jennifer, 24; Patrick, 19; and Julie, 17.

Hulbert welcomes successor; others also express support for Midgley

After receiving a lengthy round of applause, Hulbert expressed a warm welcome to his successor. "On behalf of the Rose-Hulman Institute of Technology community it is a pleasure to welcome you. The entire Rose-Hulman community is enthusiastic about you coming and they look forward to working with you," Hulbert stated.

"I'm proud of what Rose-Hulman is today, but I truly believe that its best days are still ahead of it. Good luck," he said.

Hulbert said his successor will have the privilege to work with an exceptional campus team, loyal alumni and supportive civic community who will be dedicated to helping him build an even greater institution. "All of us associated with Rose-Hulman will be committed to helping you lead Rose-Hulman to an even higher standard of excellence in education," Hulbert said.

"You bring experience in undergraduate education, a global perspective and success in technical business development that will be assets to Rose-Hulman," he explained.

Several members of the presidential search committee echoed Hulbert's comments that Midgley was the best choice to be the college's next president and has the strong support of those who met him.

continued on next page



Midgley and Hulbert review news release prior to Midgley's address to the news conference.

"He clearly understands and embraces the shared values of the Rose-Hulman community," stated Art Western, vice president for academic affairs and dean of the faculty. "Dr. Midgley also has an

in-depth knowledge of the global issues facing the technology-based companies that our graduates will help shape in future decades."

Rose-Hulman junior Natalie Morand expressed enthusiasm about Midgley's open-door policy to meet with students. "He said that students could speak with him about any issues at anytime. Dr. Midgley is an outgoing individual who shows genuine interest in maintaining and improving the community feeling at Rose-Hulman," said Morand, a chemical engineering major, who just ended her tenure as president of the Student Government Association.

The Rose-Hulman staff was impressed with Midgley's appreciation for the important role they have in the college's progress, according to Bryan Taylor, director of publications and the staff's elected representative to the Board of Trustees, who was on the search committee.

"The staff is confident that Dr. Midgley has the leadership skills, and experience necessary to build upon the successes that have occurred under Dr. Hulbert's exceptional leadership," commented Taylor. "The staff supports his policy of shared governance in which input from all segments of the campus community will be sought when determining future campus goals."



Student Bob Schulein, co-editor of the student newspaper the Rose Thorn, visits with Midgley after news conference.

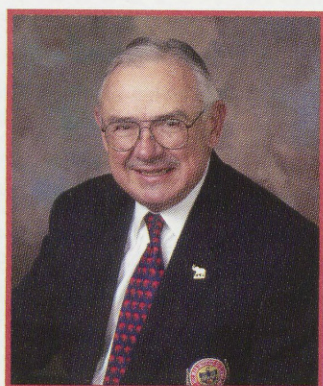


Midgley visits with alumnus and Board of Trustee member Bill Schindel.

The tremendous support the college receives from its alumni is an asset that Midgley has quickly identified as a strength that he values and looks forward to nurturing, said Brian Dyer, director of alumni affairs and special events. "Building upon the outstanding loyalty that Dr. Hulbert has created among our alumni will be an activity to which Dr. Midgley said he will devote considerable time and energy," Dyer stated. "He will do an exceptional job communicating Rose-Hulman's goals and needs to our alumni and all publics," Dyer said.

Feb. 9, 2004, will be remembered as a historic day for the Rose-Hulman community. John Midgley described the day as one that occurs rarely in someone's life. "If we're fortunate, each of us in our lives has a day or maybe two or three when a dream comes true. Today is a day like that for me." ■

FOCUSING ON THE PRESIDENTIAL SEARCH



By Clyde Willian, Chairman of the
Rose-Hulman Institute of Technology
Board of Trustees

I want to salute the campus community for its input in the selection of John Midgley as the 12th president of Rose-Hulman Institute of Technology.

The 10-month presidential search process led the college to a man who will do an excellent job building on the strong legacy of Sam Hulbert. We knew following the 28-year tenure of Dr. Hulbert would be no easy feat for any successor. We entered the search giving strong consideration as to the traits we felt the next leader of Rose-Hulman should bring to campus, which I outlined in my previous column. The overwhelming consensus that came out of the process was that Dr. Midgley would be the best person to take our college to the next level.

The process that brought Rose-Hulman and Dr. Midgley to that conclusion started last May with the appointment of a search committee that represented all campus constituencies – students, faculty, alumni, staff and trustees. The 16-member committee was set up with half of its members being trustees and the other half representing the on-campus community and alumni. Members of the committee were: Robert Compton, Board of Trustees; Phillip Cornwell, professor of mechanical engineering and faculty representative; Guille Cox, Jr., Board of Trustees; Thomas Dinkel, Alumni Representative to the Board of Trustees; Richard Ditteon, professor of physics and optical engineering and faculty representative; Brian Dyer, director of

alumni affairs and special events and staff representative; James Eifert, president of Rose-Hulman Ventures; William Fenoglio, treasurer, Board of Trustees; Pete Gustafson, vice president for student affairs and dean of students; Jeanne Liffick, administrative assistant for academic affairs and secretary to the search committee; Alane Meis, secretary, Board of Trustees; Natalie Morand, student representative; Donald Scott, vice chairman, Board of Trustees; Bryan Taylor, director of publications and staff representative; Michael Thomas, Board of Trustees; Art Western, vice president for academic affairs and dean of faculty; and Clyde Willian, chairman, Board of Trustees.

I want to extend my personal thanks to each of those persons who collectively devoted hundreds of hours reviewing resumes, making reference checks, meeting with prospective candidates and attending meetings. I especially want to thank Art Western and Jeanne Liffick who handled most of the logistics for our meetings and candidate interviews.

One of the first tasks tackled by this group was the selection of Academic Search, a consultant service that specializes in chief executive officer and chief academic officer search needs of American higher education. The consultant serving Rose-Hulman was Tobie van der Vorm who guided our committee through the search.

The position was advertised in the American Society for Engineering Education (ASEE) magazine *Prism* and in the Chronicle of Higher Education. In addition to those outlets, letters were sent to engineering deans and presidents throughout the country seeking nominations and applicants for the Rose-Hulman presidency. Of course, many personal contacts were made in the engineering education community.

That process resulted in 60 applicants. We narrowed the field to 16 candidates in October and eventually to four finalists who came to campus for a thorough interview process that put the candidates in front of all campus constituencies.

Each finalist's visit included meetings

with individual vice presidents, academic department heads, student representatives, the faculty affairs committee, a committee of staff representatives, and Board of Trustees representatives.

In addition to the aforementioned constituent meetings, an open forum was held in the Hatfield Hall theater. The entire campus community was invited to these forums. Estimates put the attendance at each open forum from 300 to 350 people.

I was very proud of the exchange that took place at each forum. Our faculty, staff and students represented themselves and the college well. All questions were focused and they revealed different aspects of each candidate.

After the open forums, faculty, staff and students could provide their comments via a confidential online survey about each candidate. They also could contact their respective constituent representative on the search committee.

Two open meetings – one conducted by the faculty representatives and the other by the staff representatives – took place after the on-campus candidate interviews. Each of those sessions provided an overview of the process and allowed for further exchange of ideas concerning each candidate.

On February 4, the search committee met to make a recommendation. Each constituent representative reported to the committee the views of each of his or her constituents. The final unanimous recommendation that went to the Executive Committee of the Board of Trustees was that Dr. John J. Midgley be selected by the Board of Trustees as the 12th president of Rose-Hulman.

The process that reached that conclusion was thorough, open and informed. It flourished because of the input that was received from the campus community. All voices were heard and they were seriously considered in the decision-making process. There are not many colleges that encouraged as much input as we did in our search. I am proud to be part of such a community and again express my thanks to you all. ■

Great Days

A LETTER FROM THE PRESIDENT

REFLECTING ON 28 YEARS OF SHARED ACHIEVEMENTS

The reality of my upcoming retirement came into focus this spring as I began wading through 28 years worth of books, lesson plans and files straining the shelves in my office. Many items will be put into storage, but the things I cherish the most cannot be packaged in a box. Those items will go with me as memories of the progress members of the Rose-Hulman community have achieved working as a team. I would like to share my view of some of our achievements.

PEOPLE

Much of the data suggest that we have the most talented students, faculty and staff in the history of the college. They bring keen intellects accompanied by a curiosity to learn more and a desire to become better.

I could fill columns with statistics about our people, but the trait that sets our people apart is that they are such wonderful citizens who contribute beyond the gates of 5500 Wabash Avenue. Our students serve the community in so many ways, whether it be as blood donors, to building Habitat for Humanity houses to assembling bicycles for less fortunate youths at Christmas. Faculty and staff dominate leadership within various Terre Haute-area civic organizations, and they play a key role in assisting with economic development.

REPUTATION

Our people have teamed to take Rose-Hulman's reputation to even higher levels. Just this past year, we were named as the number-one undergraduate engineering college by U.S. News & World Report for the fifth year in a row. Kaplan/Newsweek selected Rose-Hulman as one of the 12 "Hot Colleges" in the country, and we ranked fifth on a list of the nation's "Top 25 Most Connected Campuses" released by The Princeton Review.

Rose-Hulman also has hosted faculty from throughout the world who came to campus to learn how to do undergraduate engineering, science and mathematics education. We also are known as "the place" for learning about best assessment practices for engineering education.

CURRICULA

I have taken great pleasure watching our faculty work to improve curricula and educational delivery methods. Rose-Hulman became one of the first colleges in the country during the 1990s to incorporate the laptop computer into the curriculum, and today we experiment with tablet PCs and handheld computers.

Our course offerings and degree programs have kept pace with the changing needs of our society. We have moved dramatically into the life sciences, and we are at the leading edge of new concepts such as nano science and genetic engineering. Some of the recently added degree programs include applied biology, biomedical engineering, engineering physics, optical engineering and software engineering.

Of course, we have increased our emphasis on project-based learning throughout our curriculum and at Rose-Hulman Ventures, our technology-based business incubator.

FACILITIES

Rose-Hulman has invested \$143 million in new facilities or renovations during my tenure as its president. To attract the best students and to provide the best education possible, you need to have the best facilities possible. Ours compare with those of any undergraduate college in the country.

Some of the facility additions and/or renovations completed in the last 28 years include Moench Hall, Olin Hall, Hadley Hall, Olin Advanced Learning Center, Hulman Memorial Union, Sports and Recreation Center, White Chapel, Hatfield Hall, Oakley Observatory, Cook Stadium, the New Residence Hall, Myers Center for Technological Research with Industry, acquisition of Aleph Park (home to Rose-Hulman Ventures), and the new residence hall currently under construction.

COEDUCATION AND "VISION TO BE THE BEST"

All of the aforementioned accomplishments would not have been possible without two major events during the last 15 years – becoming a coeducational institution and the "Vision to be the Best" fund-raising campaign.

It was essential for Rose-Hulman to become coeducational if we truly strived to be the best in undergraduate engineering, science and mathematics education. The transition went smoothly with no major problems.

Another key element to our recent accomplishments was funding. "Vision to be the Best" started 10 years ago with a goal of raising \$100 million. I am pleased to note we are closing in on \$250 million.

Much work remains to be done. I am concerned that many students cannot attend Rose-Hulman because of our inability to meet their financial aid needs. Another area we need to bolster is our endowment.

Challenges will remain, but I believe Rose-Hulman's best days are ahead under the leadership of our incoming president, Dr. John Midgley. I say that in confidence because of the strong sense of community we have at Rose-Hulman. It is the characteristic of which I am most proud. We have a community with shared passion for excellence, a zeal for service and a concern for each and every individual in the community. Our strong sense of community made our successes possible, and it will be what takes us to the next level. It has been my privilege to be a part of such a group of people. ■



By Samuel Hulbert, President of
Rose-Hulman Institute of Technology

TEXAS INSTRUMENTS GRANT HELPS ROSE-HULMAN CREATE A MODEL FOR WIRELESS TECHNOLOGY EDUCATION

A \$250,000 grant from Texas Instruments will enable Rose-Hulman Institute of technology faculty to expand their work to improve wireless technology education nationally and internationally by creating new teaching materials and expanding partnerships with educational organizations and industry.

The grant will fund a three-year initiative to develop an advanced communications laboratory, new courses, Web-based education modules, multimedia simulations and tutorials, and a new textbook.

The new advanced communications laboratory will be a source for the development of many of the new wireless technology education materials that will benefit teachers in virtually every grade level, according to Fred Berry, professor and head of the Rose-Hulman Department of Electrical and Computer Engineering. "We will develop a wide range of materials that will be useful to teachers in kindergarten through graduate school," said Berry, who is the college's program manager for the grant.

"Our primary objective is to upgrade and expand the educational opportunities for our students," Berry stated. "We are also interested in working with our strategic partners in the industrial sector and the undergraduate engineering community to shape a wireless engineering curriculum and associated laboratories into a nationally recognized model for wireless education."

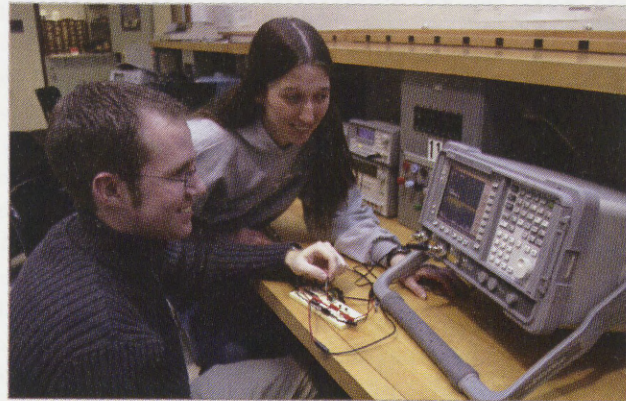
The innovative teaching materials will be distributed nationally and internationally through a partnership between Rose-Hulman and the Global Wireless Education Consortium (GWEC) in Arlington, Va. GWEC is a collaboration of wireless industry companies and nearly 90 academic institutions. Rose-Hulman faculty will also partner with colleagues at the Academy of Electronic Media at Rensselaer Polytechnic Institute in Troy, N.Y. to develop the Web-based educational materials.

The new laboratory will be created by remodeling existing academic space in Moench Hall at Rose-Hulman. "The advanced communications lab will benefit 440 students who are majoring in electrical and computer engineering," Berry emphasized. The laboratory will enhance courses ranging from high-speed digital design to electromagnetic compatibility.

The grant will further develop two new undergraduate wireless technology courses at Rose-Hulman and make it possible for faculty to begin creation of two new graduate courses, Berry stated.

The grant expands work done by GWEC industry members and education partners, including Rose-Hulman, that are being distributed internationally by the consortium.

"One of our goals is also to develop or revise 20 more modules to define a set of senior-level, elective courses in the area of wireless technology that a four-year institution could use," noted



Students Ellen Taylor and Eric McDonough work with a new spectrum analyzer made possible through the Texas Instrument grant.

Berry, who is a member of the GWEC Board of Directors.

Torrence Robinson, director of public affairs at Texas Instruments, said the success of previous work by Rose-Hulman faculty was one of the reasons the company is providing funds to create the new laboratory and help speed up the development of new teaching materials.

"Texas Instruments is well aware of Rose-Hulman Institute of Technology's tradition of excellence in undergraduate engineering, mathematics and science education," he said. "When Rose-Hulman approached us with the idea of creating an advanced communications laboratory and do so as part of a consortium that would extend the college's undergraduate wireless technology education into a global arena, we were very interested in being a part of such an educational effort," Torrence stated.

This new initiative will educate an increasing number of college graduates who are needed to continue the growth of the wireless technology industry, according to Jeffrey McCreary, senior vice president for sales and world marketing at Texas Instruments. "Wireless technology is becoming the dominant force in the semiconductor industry," said McCreary who is a Rose-Hulman alumnus and trustee. "It is of unmatched importance to Texas Instruments and to our customers. We all have a stake in developing the skilled labor force necessary to support the continued growth of the wireless industry, and we are proud to associate with Rose-Hulman and GWEC in doing so," he noted.

Susan Sauer Sloan, GWEC executive director, said the support from Texas Instruments will result in new or enhanced educational materials that will be well received by GWEC members. "When Professor Berry suggested the alliance involving Rose-Hulman, GWEC and Rensselaer Polytechnic Institute, I knew that the result would be outstanding educational materials that will be developed in a very creative and engaging format." ■

\$750,000 LILLY ENDOWMENT GRANT ENABLES ROSE-HULMAN TO CREATE NEW PROGRAMS TO RETAIN GRADUATES IN INDIANA

A \$750,000 grant from the Lilly Endowment of Indianapolis will enable Rose-Hulman Institute of Technology to create regional centers in Indiana where students will interview with prospective employers who find it difficult to recruit on campus. The centers are part of an expanded initiative to retain more Rose-Hulman graduates in the state.

The grant will also expand an internship program that has been successful in placing Rose-Hulman graduates with entrepreneurial Indiana businesses.

"There are Indiana companies who don't have the resources to recruit on campus," stated Kevin Hewerdine, director of Career Services and Employer Relations at Rose-Hulman. "As a result, our students are missing out on attractive career opportunities, and these companies are not able to benefit from our talented pool of graduates. So, we're going to take the students to the prospective employers," he explained.

"At these regional interview centers, we will also conduct training sessions for employers on the advantages of the new graduates, how to interview students and how to emphasize the professional challenge, lifestyle and economic advantages of staying in Indiana," Hewerdine said.

Employers will interview students for summer, co-op and permanent employment, according to Hewerdine.

The grant is one of 37 Endowment grants announced that are being awarded to public and private Indiana colleges and universities through the Endowment's Initiative to Promote Opportunity Through Educational Collaborations program.

The grants total \$38.9 million. The amounts of the grants were based on total number of students at each school.

Thousands of Indiana college students should benefit from new or expanded internships and placement opportunities through the myriad of collaborative programs that will receive funding, the Endowment stated in a news release.

"Dozens of new relationships with alumni and others have been developed that will offer numerous internships and other experimental education opportunities for Indiana students," said Sara Cobb, Endowment vice president for education.

Rose-Hulman alumni and other senior executives will be recruited to serve on advisory boards that will help Rose-Hulman meet the needs of employers in each geographic area where a regional center is located.

The grant will also enable Rose-Hulman to expand its Entrepreneurial Internship Program. "It has been one of our most successful programs for keeping new graduates in Indiana," Hewerdine said. "Sixty percent of the students participating in the program have accepted full-time employment with an Indiana company," Hewerdine noted.

The internship program assigns students to work at a technical entrepreneurial Indiana company where they report to the chief executive officer or the chief technical officer. To qualify, companies must have less than \$25 million in annual revenue and less than 100 employees. The program is in its ninth year.

Efforts to create the regional centers and expand the internship program will begin immediately, Hewerdine said. ■

REFLECTION PLAZA OFF TO STRONG START



Almost 1,000 bricks have been sold for the new Reflection Plaza that will surround the Flame of the Millennium sculpture on the front lawn of campus. The project had raised \$285,000 as of early March. Construction on the plaza will begin this summer.

The plaza allows alumni, students, parents, faculty, staff and friends of Rose-Hulman to leave a legacy through purchase of three different sizes of bricks.

"The Reflection Plaza has proven very popular with many people purchasing bricks in memory or honor of others," said Karen O'Rourke, director of annual giving and coordinator of the brick purchases.

"The most touching purchases have come

from alumni who are honoring their parents for the sacrifices they made to enable their children to attend Rose-Hulman," O'Rourke said.

Although the first round of brick sales is closing, people can still participate in the program because the plaza is being set up to allow for further brick installations at later dates.

Three sizes of bricks available for purchase are: 4x8 inches for \$150, 8x8 for \$500 and 12x12 for \$1,000.

For more information, contact O'Rourke in the Office of Annual Giving at 800-248-7448, ext. 8159, or via e-mail at Karen.orourke@rose-hulman.edu. You can also access the plaza Web site at <http://www.rose-hulman.edu/reflection/>. ■

KERN FAMILY FOUNDATION GIFT CREATES SECOND ECE STUDIO CLASSROOM LAB

A \$125,000 grant from the Kern Family Foundation of Waukesha, Wisc. is creating a second, studio-style laboratory classroom in the Department of Electrical and Computer Engineering (ECE) at Rose-Hulman Institute of Technology.

The studio design adds a laboratory environment to the traditional classroom setting which eliminates the need to separate classroom lecture from the laboratory experience, explained Fred Berry, professor and chairman of the electrical and computer engineering department.

"The grant will make it possible to use the latest technology in a learning environment that will support a variety of learning styles," he said. "The studio format allows students to learn technical content while gaining experience in

teamwork and communication. The format is truly a better utilization of education resources," Berry stated.

The new studio classroom and lab will be used to teach six different undergraduate classes for students majoring in electrical, computer or mechanical engineering. A classroom in Moench Hall is being remodeled into the new learning space that will be ready for use in August.

The Kern Family Foundation supports change that increases the visibility of excellence in engineering and the creation of more high quality, creative, industry-ready engineers with undergraduate engineering degrees.

The first ECE studio classroom and lab was opened last fall with the support of a \$100,000 gift from Caterpillar Inc. and the Caterpillar Foundation. ■

SENIOR SELECTED AS ONE OF NATION'S TOP CIVIL ENGINEERING STUDENTS

For the third straight year, a Rose-Hulman Institute of Technology senior has been selected among the nation's top civil engineering students in *CE News* magazine's annual Star Students issue.

Spring McEwen was among 40 students from the nation's top engineering colleges and universities profiled in the December Star Students' issue. The listing represents the future of the civil engineering profession, according to *CE News* Project Director Holly Bradley.

McEwen specializes in structural design after being an engineering intern and assistant drafting coordinator for Metromont Prestress (S.C.) during the past three summers. She also has gained experience in working with AutoCAD, Excel, MathCAD and some engineering software programs.

At Rose-Hulman, McEwen has been vice president of the Cecil Lobo student chapter of the American Society of Civil Engineers, president of the Delta Delta

Delta sorority and a member of the varsity women's soccer team. She received the college's Cecil T. Lobo Scholarship,

based on scholastic performance; ASCE Alumni Award, based on dedication and service to the civil engineering profession; and Student Government Association Leadership Award, based on community service.

"These students' resumes read like a human resources department's wish list," Bradley noted.

Other colleges having students on this year's Star Student list include Georgia Institute of Technology, Northwestern, Carnegie Mellon, Duke, Purdue, Illinois, Michigan and Rice. ■



Spring McEwen

ROSE-HULMAN COMMUNITY ACHIEVES LILLY ENDOWMENT CHALLENGE

Rose-Hulman Institute of Technology has received \$3.5 million in matching funds from the Lilly Endowment of Indianapolis as the result of achieving three goals included in the endowment's Special Initiative to Strengthen Philanthropy for Indiana's Higher Education Institutions.

The endowment program challenged Indiana colleges and universities to raise \$3 million from alumni, \$250,000 from parents, family members and students, and \$250,000 from faculty and staff. The funds had to be received during a period that began June 1, 2002, and ended Dec. 31, 2003. Rose-Hulman exceeded each of the goals and raised \$9,915,279 during the period. Gifts from 4,815 alumni amounted to \$9,081,463 of the total.

The Lilly Endowment matching funds have been used to improve academic facilities, endow scholarships, purchase laboratory equipment, support new academic awards and a lecture series, according to Mark Richter, vice president for development and external affairs. About \$1.6 million of the endowment match was used to remodel the Moench Hall auditorium into new classrooms, labs and faculty offices for the Department of Computer Science and Software Engineering.

"The initiative created a significant increase in gifts to Rose-Hulman during the 19-month period that donations were matched by the endowment," stated Rose-Hulman President Samuel Hulbert. "Exceeding the goals of the challenge program is another indication of the tremendous loyalty and pride that Rose-Hulman alumni, employees, students and the families of our students have in this college," Hulbert noted.

"Support from the Lilly Endowment continued to be one of the key factors that has led to Rose-Hulman becoming a national leader in undergraduate engineering, mathematics and science education. The latest challenge initiative is another example of the endowment's leadership and commitment to helping Rose-Hulman and other Indiana colleges and universities offer the very best education possible," he said. ■

NATIONAL STUDY SHOWS ROSE-HULMAN RANKS AMONG THE BEST AT CHALLENGING, INVOLVING AND SUPPORTING STUDENTS

The results of the 2003 National Survey of Student Engagement (NSSE) that for the second consecutive year, Rose-Hulman Institute of Technology is a national leader in challenging its students academically, creating an active and collaborative learning environment, and providing a supportive campus environment.

The National Survey of Student Engagement compared average scores turned in by 185,000 randomly selected first-year and senior students at 649 four-year colleges and universities who evaluated five areas of their educational experience. The areas that students rated were level of academic challenge, active and collaborative learning, student-faculty interaction, enriching educational experiences and supportive campus environment.

The survey included 13 sections/areas with a total of 79 survey items. The study does not rank institutions.

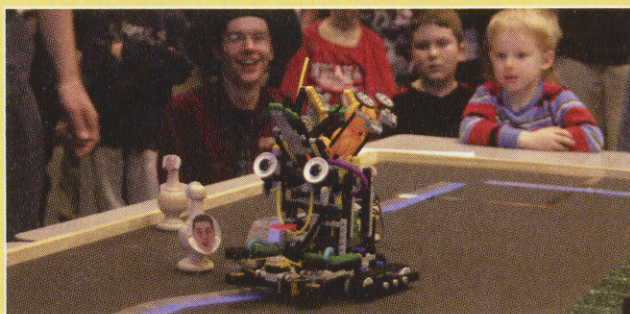
Seventy-three percent or 585 freshmen and seniors at Rose-Hulman completed the survey.

Student engagement represents the combination of the effort students devote to educationally sound activities and what colleges do to prompt students to take advantage of these activities.

Rose-Hulman received benchmark scores determined by student response that was higher in four of the five categories than scores received by national universities, general baccalaureate institutions and participating private engineering colleges that are members of the Association of Independent Technological Universities (AITU). Rose-Hulman's highest score from students was for supportive campus environment. Rose-Hulman was second only to baccalaureate institutions in the enriching educational experiences category. Even within that category, stu-

dents gave Rose-Hulman a higher mean score than the other three educational groups for internship and co-op experiences, and a culminating senior experience such as a capstone course, project or comprehensive exam. ■

ROBOTICS, HOOSIER HYSTERIA STYLE



Junior electrical and computer engineering students learned valuable lessons in design, project planning and teamwork in a new 10-week introductory design course, taught by professors Bruce Ferguson and David Voltmer. For the winter quarter, student teams designed Lego-based robots that completed three tasks during the Intergalactic Robotic Triathlon: A timed slalom course, a free throw shooting contest (with three ping pong balls) and pushing a block 100 centimeters. If successful, the robot could do a victory dance. The winning team, appropriately named "Team I", made all three free throws! Team members were Matt Bedel, Amanda Brindley, Macie Korte, Jim Nagel and Alex Van Brunt.

ROSE-HULMAN TEAM QUALIFIES FOR NATIONAL COLLEGE BOWL

For the first time, a Rose-Hulman Institute of Technology student team will showcase their vast knowledge of technical information, current events and trivia at the National College Bowl Tournament on April 23-24 at Auburn University.

The five-member team was victorious over eight other Indiana and Illinois colleges – including the University of Notre Dame, Indiana University and Purdue University – during the regional competition in Indianapolis on Feb. 21. They defeated Purdue twice, by 200-105 and 265-240 scores, and beat Valparaiso University, 200-95, in the finals.

Kristy Bailey, a junior mechanical engineering major, is the team's captain. Other members are John Beety, a sophomore economics major; Justin Droba, a sophomore mathematics major; Brandon Hathaway, a



Rose-Hulman's College Bowl team includes (front row, left to right) Brandon Hathaway, Kristy Bailey and Charles Key. In the back row are John Beety (left) and Justin Droba (right).

junior mechanical engineering major; and Charles Key, a sophomore electrical engineering major. John Robson, institute librarian, is the team's adviser.

Other regional winners competing in the

50th anniversary of the National College Bowl will be the University of Chicago, the defending national champions; Baylor University, Colorado State University, Cornell University, Dartmouth College, Davidson College, University of Florida, Cornell University, Georgetown University, University of Michigan, University of Minnesota, SUNY-Stony Brook, Truman State University, UCLA, University of Illinois at Chicago and the University of Washington.

The College Bowl tournaments challenge players in current events, history, math, geography, sports and literature. The Bowls began in the 1950s on television, sponsored by General Electric. The contest is now sponsored by the Association of College Unions International, with the final rounds televised by ESPN. ■

Bailey Challenge

By Professor Emeritus Herb Bailey

A little known mathematician by the name of Charles L. Dodgson invented a game played on a circular billiard table. He is better known as Lewis Carroll, author of *Alice's Adventures in Wonderland*. The problems for this issue are to find paths of a cue ball as it travels with constant speed on a circular table. The ball rebounds from the circular cushion such that the angle of incidence is equal to the angle of reflection. The path starts at point A on the cushion with the initial path segment AB at an angle Θ from the radius OA, where O is the table center and $0 \leq \Theta < 90^\circ$. See Figure 1.

Problem 1.

Find Θ if the cycle is an equilateral triangle..

Problem 2.

Find Θ for the cycle shown in Figure 1.

Problem 3.

Find S and T for the cycle corresponding to $\Theta = 13^\circ$.

Part of the path is shown in Figure 2

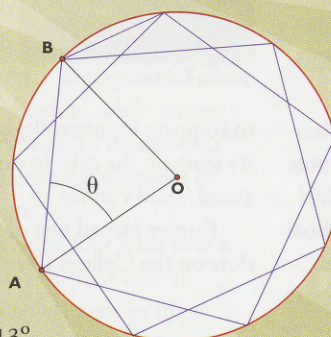


Figure 1

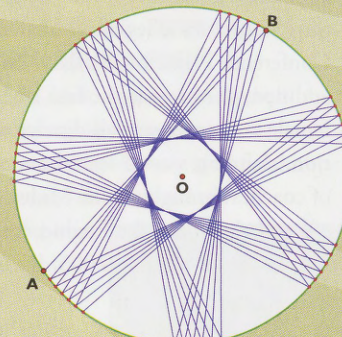


Figure 2

Bonus "The Six Pack Problem"

Joe Moser suggested this problem as a warm up, it took me forever to solve it so I have promoted it to the bonus category. A box measures $3 \times 3 \times 3$. How can six blocks measuring $2 \times 2 \times 1$ be fit into the box? No saws or wood chippers are allowed. Speedy solvers need not report their solution time.

Send your solutions to Herb.Bailey@rose-hulman.edu or to Herb Bailey, Math. Dept., Rose-Hulman, 5500 Wabash Ave., Terre Haute IN 47803.

Solvers of the problems for previous issue are listed. I should have given credit to Mike Rinker rather than his father Bill for a solution of the tank problem of the summer issue.

Alumni: B. Barrick, 1941; W. Soudriette, 1943; H. Payne, 1947; J. Hurt, 1948; C. Cook, 1949; A. Junker, 1950; C. Hirschfield, 1954; C. Cooper, 1956; B. Waggener, 1957; H. Brown, 1957; D. Bailey, 1959; C. Sechrest, 1960; J. Tindall, 1961; J. Snyder, 1962; N. Hannum, 1962; D. Todd, 1962; G. Carroll, 1965; J. Lafuze, 1967; J. Moser, 1967; M. Jackson, 1969; W. Pelz, 1971; J. Spearing, 1971; D. Wheaton, 1974; P. Chilson, 1974; M. Bailey, 1976; B. Deeds, 1978; R. Strickland, 1978; M. Clouser, 1979; J. Slupesky, 1979; J. Koechling, 1980; S. Nolan, 1981; B. Wade, 1983; K. Walter, 1983; M. Walden, 1986; D. Johnson, 1987; M. Nigrovic, 1987; S. Johnson, 1987; A. Cutaia, 1988; S. Johnson, 1988; T. Doerr, 1988; C. Abdnour, 1989; J. Jachim, 1989; G. Heimann, 1990; B. Burger, 1991; D. Hector, 1992; J. Kesari, 1993; B. Hochstedler, 1996; C. Tracy, 1997; R. Conn, 1997; B. Monacelli, 2000; B. Elliott, 2002; D. Harrington, 2002; K. Bopp, 2003; A. Stevens, 2003; A. Stephens, 2004; D. Camp, 2004; D. Hipkind, 2006; E. Boghaert, 2007; S. Schnelle, 2007

Friends: A. Mahler, A. Murray, B. Creel, E. & S. Mayhew, J. Ley, L. Merkle, L. Gaintner, N. Flatter, P. Reeder, R. Schnelle, J. Dorsey, W. Orr, A. Andrews, J. Jackson, P. Stallman, S. Compton & son, J. Durlacher, M. Sample, A. Kelsall, J. Moore, H. Rosene, C. Linden, J. Thomas

The bonus problem in the last issue was to explain the Fido puzzle (<http://digicc.com/fido/>) and you sent a wide variety of solutions. I have distilled your solutions along with some internet solutions and those of my mathematical friends into the following 'simplest proof'.

Result 1 If N is a positive integer and S the sum of its digits, then $N - S$ is a multiple of 9. Let $N = a_n 10^n + a_{n-1} 10^{n-1} + \dots + a_1 10 + a_0$, then $S = a_n + a_{n-1} + \dots + a_1 + a_0$. Thus $N - S = a_n(10^n - 1) + a_{n-1}(10^{n-1} - 1) + \dots + a_1(10 - 1)$. Since $10^k - 1$ is just k nines (not to be confused with dogs), then $N - S$ is a multiple of 9.

Result 2 If N is a positive integer and N^* is the number formed by scrambling the digits of N , then the positive difference of N and N^* is divisible by 9. The digit sum S is the same for both N and N^* . From Result 1 we have $N = S + 9j$ and $N^* = S + 9j^*$, where j and j^* are integers. Thus the positive difference of N and N^* is $9(j - j^*)$ or $9(j^* - j)$ and in either case divisible by 9.

JESSICA FARMER EARNS NATIONAL ACADEMIC, ATHLETIC HONORS

Senior soccer standout Jessica Farmer became the first female student-athlete in Rose-Hulman history to earn national recognition for her accomplishments by earning a spot on the CoSIDA Academic All-America Team this fall.

Farmer earned second-team recognition after scoring a school record 20 goals to earn Southern Collegiate Athletic Conference Player of the Year honors. In addition, she became the first Engineer female athlete to earn all-district recognition, claiming second-team honors in a vote of coaches throughout the Midwest. Her efforts helped lead the Engineers to a school record 13-4-2 mark in 2003.



Jessica Farmer

to compete in intercollegiate athletics, and it's icing on the cake to earn a national award," said Farmer.

Farmer earned one of three forward slots on the College Division Academic

"It took me a while to adjust to the academic work at Rose-Hulman, but I have been fortunate to succeed in the classroom and on the field.

It's been a wonderful experience

All-America Women's Soccer Second Team, which features student-athletes from NCAA Division II, III and NAIA schools. She was the only student-athlete from the state of Indiana or a college located in Indiana that earned College Division Academic All-American honors in women's soccer this season.

Farmer established 12 Rose-Hulman school records in a career that featured four all-SCAC selections, including a pair of first-team honors. Her marks include career marks for goals (60), assists (19) and points (139), along with single-season records established in 2003 for goals (20) and points (46).

SPORTS WRAPS

FOOTBALL TEAM ENJOYS BEST SEASON SINCE 1995

The Rose-Hulman football team enjoyed its best season since 1995 by finishing 5-5, culminating with a 22-12 win over archrival DePauw University.

Sophomore Charlie Key became the first 1,000-yard rusher at Rose-Hulman since 1995, and he claimed the SCAC rushing title. Key, senior offensive tackle, Ryan Smith and senior defensive end Jordan Strunk earned first-team all-Southern Collegiate Athletic Conference recognition for their efforts, while senior Matt Jackson made a team-high 96 tackles despite playing half the season with a broken hand.

In addition, first-year head coach Ted Karras was named the "National Rookie Coach of the Year" by d3football.com.

SOCCER TEAMS BOOT THEIR WAY TO SUCCESS

The Engineer women's soccer team set a school record with a 13-4-2 mark, while the men finished 9-9 in their best season since 1993.

Senior Jessica Farmer was named the SCAC Women's Player of the Year, while freshman Kathleen Stynes earned first-team all-conference recognition. Sophomore Kareem Lee earned first-team men's honors after leading Rose-Hulman with 10 goals.

The success included regional rankings for both squads for the first time in school history.

VOLLEYBALL TEAM NARROWLY MISSES RECORD

Rose-Hulman's volleyball team missed the school's single-season win record by just one match with a 16-21 record in 2003.

Junior Lindsey Kerbel led the squad with third-team all-conference honors and a school record 1,234 assists. Senior Sara Christenson paced the offense with 297 kills.

CROSS COUNTRY SQUAD ENJOYS BEST SCAC SUCCESS

The Rose-Hulman men's cross country team finished sixth in its best performance in six years in the SCAC, while the women placed eighth in the championship meet held at the Bird-Gibson Course.

Freshman Charlie Williams and junior Serena Oaks were named Most Valuable Runners after leading the squad in every meet.

RYAN SMITH EARNS ACADEMIC ALL-AMERICAN HONORS



Ryan Smith

Rose-Hulman senior offensive tackle **Ryan Smith (Columbia City)** earned second-team Academic All-American honors in the football college division, according to results released by the College Sports

Information Directors of America.

Smith earned second-team recognition to become the 59th Academic All-American and the 23rd football honoree in school history. For 18 consecutive years, at least one Rose-Hulman student-athlete has earned CoSIDA Academic All-American recognition.

SPORTS WRAPS

JASON LABELLA EARNS RIFLE ALL-AMERICAN HONORS

Senior Jason LaBella earned the first All-American honor in the history of Rose-Hulman's rifle program and helped lead the team to a 14th-place national finish, the team's best mark ever.



Jason LaBella

LaBella finished 11th out of 24 competitors in air rifle at the NCAA Rifle National Championships with a score of 389. He also earned the first rifle All-American in school history due to his season-long efforts in smallbore, capped by a 17th-place finish in the NCAA Qualifier at Xavier University.

"It was a lot of fun going against the top rifle shooters in the nation. I performed to the best of my ability and felt like that I competed on a high level against the nation's best," said LaBella.

LaBella's air rifle score included 25 perfect centers out of his 40 shots and was his personal top score in two years. He competed against several athletes who will attempt to qualify for the upcoming Olympic Games.

"Most people outside the shooting community don't have any idea how special this is," said Head Coach Michael Ray. "What makes it even more special is the fact that it came from a student-athlete from a school of our size and difficulty. Performing well in the NCAAAs and receiving an All-American award in the same year against the Division I student-athletes is truly remarkable," said Ray.

WOMEN'S BASKETBALL SQUAD REWRITES HISTORY BOOK

The women's basketball team rewrote their team history book with an 11-15 record under first-year head coach Tony Hill.

In addition to establishing a single-school record for team victories, freshman Rebekah Forsyth became the inaugural first-team all-conference player in school history. Forsyth averaged 15.3 points and 10.3 rebounds, while setting a single-season mark with 15 double-doubles, to claim conference Newcomer of the Year recognition.

Team feats included four wins over a five-game stretch for the first time in school history; an appearance in the SCAC Tournament for the first time; and school records for points, rebounds and assists in a season.

ROSE-HULMAN HONORS TERRE HAUTE FIRST NATIONAL BANK FOR \$150,000 SCOREBOARD GIFT

Rose-Hulman's athletic department honored Terre Haute First National Bank for a \$150,000 gift for a state-of-the-art scoreboard that is part of the new William Welch Track and Field Complex.

The scoreboard gift was the sixth made to the college by Terre Haute First National Bank for the purchase of a facility scoreboard. Previous gifts made it possible to purchase scoreboards for the baseball field, basketball and volleyball court, football field, soccer field, and indoor track and field complex.

Participating in the ceremony were Bill Welch, head track and field coach at Rose-Hulman from 1982-03; Chris Fenimore, vice president and trust officer at Terre Haute First National Bank; Jeff Jenkins, athletic director; Samuel Hulbert, president of Rose-Hulman; and Greg Gibson, board member of both Rose-Hulman and Terre Haute First, President of ReTec, and Rose-Hulman track-and-field alumnus.

CHECK THE WEB FOR ATHLETIC UPDATES

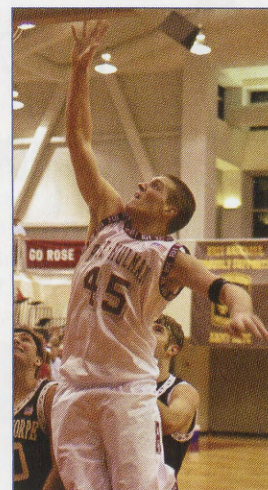
Athletic news and schedules for the current and fall season are now available online at Rose-Hulman's sports homepage.

Visit <http://www.rose-hulman.edu/sports> for all the details

MEN'S BASKETBALL TEAM ENJOYS BEST TURNAROUND EVER

The Rose-Hulman men's basketball team enjoyed the best single-season turnaround in school history after finishing 19-8 and second in the Southern Collegiate Athletic Conference this spring.

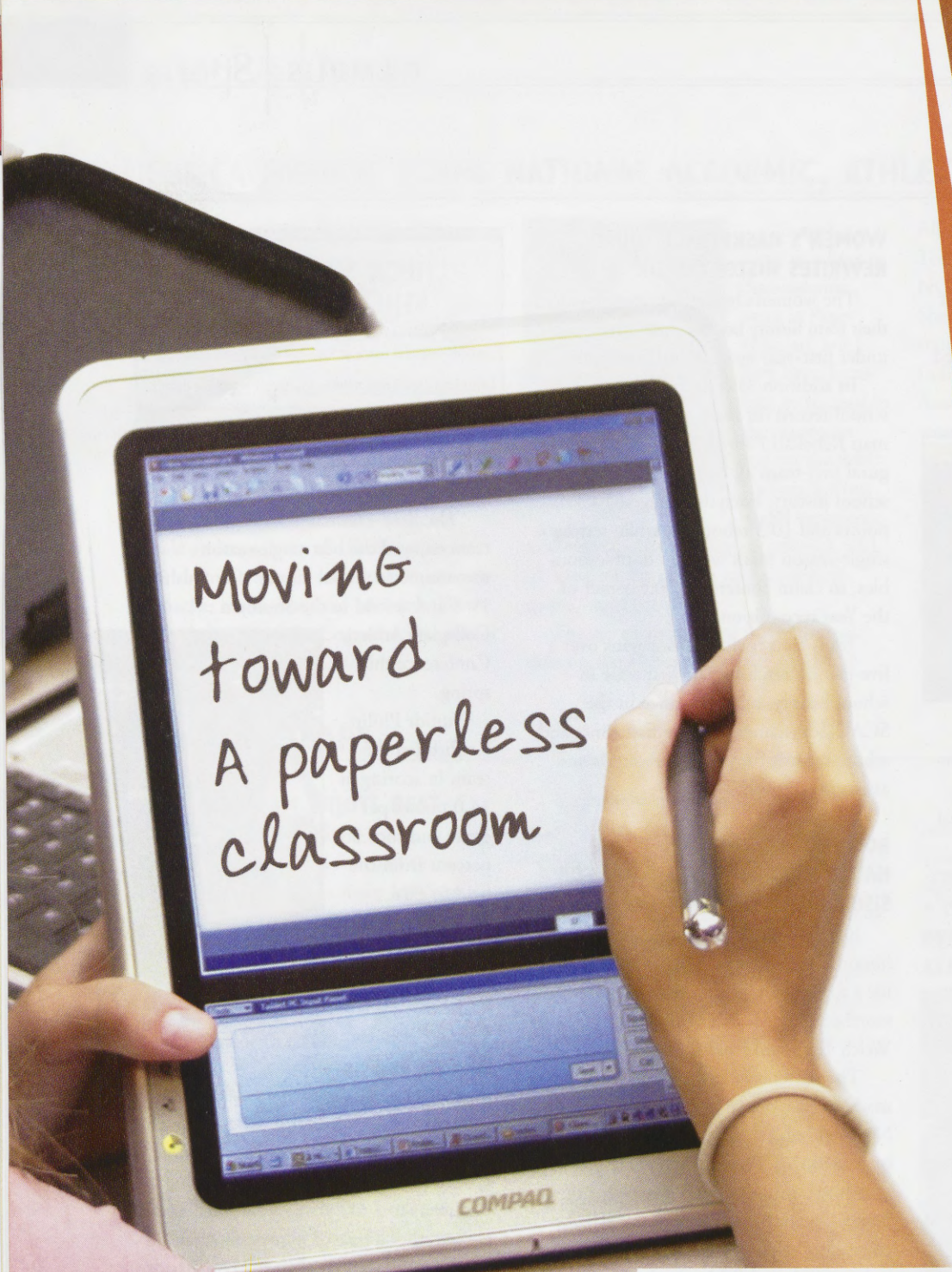
Junior Philip Griffith led the team in scoring at 14.0 points per game and shot 56 percent from the field to earn SCAC Player of the Year honors. Sophomore Munchie Muskeyvalley joined Griffith on



Philip Griffith

the first-team all-conference squad after averaging 13.4 points and 3.7 assists per contest.

Head coach Jim Shaw led the Engineers to a 6-1 start, before the team ran together a pair of four-game winning streaks to finish second in the conference at 11-3. ■

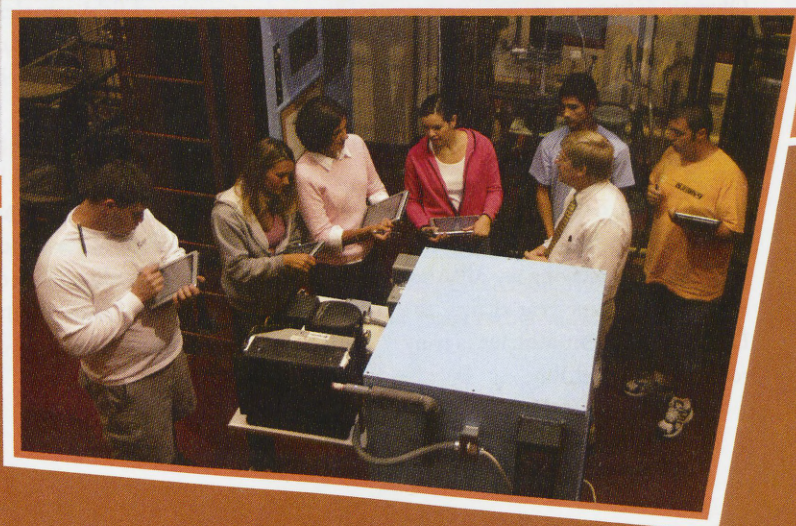


Moving
toward
A paperless
classroom

BY DALE LONG

Above: Tablet personal computers are being utilized in some courses.

Right: Students in Professor Alfred Carlson's class work on-site with their tablet PCs in the Olin Hall chemical engineering high-bay lab.



Walk into Alfred Carlson's thermodynamics classroom or Sudipa Kirtley's physics laboratory at Rose-Hulman Institute of Technology and you'll notice the changing landscape of undergraduate science and engineering education. High-tech tablet personal computers and plastic handwriting jotters are replacing spiral notebooks, ink pens and pencils.

In effect, a paperless classroom has been created.

Technology-adept students and faculty are utilizing Compaq TC1000 tablet personal computers, donated by Hewlett-Packard Company through a \$220,500 advanced mobile technology grant. The tablets are used to access classroom materials and homework assignments, collect data from laboratory experiments and write down classroom notes through the college's wireless computer network. Students and professors are also using iPAQ H5450 pocket personal computers in academic settings where traditional computers are impractical. Thirteen faculty and over 400 students used the tablets and iPAQs during the 2003-2004 school year.

Compact (8.3" long by 10.8" wide by 0.8" high) and lightweight (approximately 3 pounds), the tablet PCs offer unprecedented mobility and versatility. They also boast the following features: A 10.4-inch screen, 40 gigabyte SMART hard disk drive storage, a removable keyboard that provides easy ability to change from tablet mode to notebook PC mode, four hours of battery life, integrated 10/100Base-T Ethernet LAN and 802.11b wireless card, a multibay docking station, a Transmeta processor and state-of-the-art graphics package.

The system helps illustrate the breadth of technology available for Rose-Hulman students and professors, according to Arthur Western, dean of faculty and vice president of academic affairs. Earlier this year, the college was ranked fifth on a list of the nation's "Top 25 Most Connected Campuses," by The Princeton Review, and tied with Carnegie Mellon University as the most tech-savvy schools in Kaplan/Newsweek's "Hot Colleges" list.

"At Rose-Hulman, we're always experimenting with emerging technologies so that when new capabilities — ones that make a real difference in student learning — become sufficiently powerful and cost effective, we are poised to implement them," Western states.

This spring, junior chemical engineering students are taking the personal tablet computers outside Carlson's classroom in the Olin Advanced Learning Center to the unit operations laboratory in nearby Olin Hall to operate experiments on thermodynamic analysis. Students use styluses to write lab notes and Carlson's laboratory comments are handwritten across the touch pad computer screen. Later, the comments are converted into a text file and downloaded into a student's personal file for retrieval while completing a lab assignment or studying for an exam.

Meanwhile, in a physics lab on the first floor of Moench Hall, Kirtley's physics students are using tablets, with LabPro computer software, to collect and analyze data for electricity and modern physics experiments. For an experiment on Malus Law, students use the tablets outside of the laboratory, in an open-air setting, along with solar detectors and calibrated polarizers, to gather data. They could analyze data on the spot using Excel software, and then share the results with other classmates. This spring, Physics III students are taking the tablets to the Sports and Recreation Center to better understand the concepts of tangential and radial acceleration.

"The possibilities are endless. We're just touching the tip of this new technology," states Natalie Morand, a junior chemical engineering major who utilized the tablets during Carlson's fall class. She favors the tablet's note-taking feature, through the Microsoft Journal program, that enables students to draw pictures and sketches, and to write chemical equations onto the tablet screen. The text file version of these notes can be sent, through e-mail, to students in a course workgroup.

Student Jason Osborn is another fan of the "digital ink" technology, stating: "I can't believe the tablet can convert MY handwriting, as bad as it is, into text that I can read."

The junior chemical engineering major noted another important tool of the tablets: Instead of having to flip through spiral notebook pages looking for one simple word or topic, the tablets' word search capabilities allow for quick retrieval of such information.

"It can be a real lifesaver when studying for a test or completing a classroom assignment. And, anything that can save time is invaluable around Rose-Hulman," Osborn said.

A recent assessment and evaluation study of students using the tablet PCs and iPAQs, conducted by the Office of Institutional Research Planning and Assessment (IRPA), revealed an overwhelming majority of those students utilizing the handheld technology liked the devices. Forty-one percent stated they would like to use the PCs in other courses.

"The convenience of the tablets, because of their portability, is a real asset in the laboratory setting," states Crystal Landreth, a junior chemical engineering major. "I could take the tablet places where my laptop computer can't go, and I could write notes on the screen that can be retrieved later."

Carlson placed all course materials on a class Web site, linked to a master syllabus. The students can access daily objectives, the lecture schedule, blank notes outlines, slideshows, problem assignments, goals, and hints in the class.

"Having tablets in the class is like having the world's biggest encyclopedia with you at all times. Students can search databases and access the Internet easily, right in class, to get background materials on topics being discussed in class or the laboratory," Carlson said. "This experience allows us to discuss the quality of the information on the Internet."

Kirtley noticed that the tablets allowed for more student interaction during lab experiments, a better understanding of physics concepts and more familiarity with new technology. Rose-Hulman became one of the first colleges to require laptop computers for all students in 1995.

"They favor being somewhat more mobile in the laboratory environment with their experimental data that even the laptops did not make happen. Also, possibilities outside the laboratory room open up with the tablet," Kirtley noted.

One Rose-Hulman professor dubbed the new "take it with you" learning style "m-learning (mobile-learning)" to complement the old way of thinking of "e-learning (electronic-learning)."


In terms of improvement in student learning, IRPA's assessment report revealed that faculty indicated students would be able to enter more data, explore more options on how to learn to use new technology, engage in more sophisticated analysis, learn to cope with difficult or unfamiliar environments, and become better communicators.

"This technology makes it easier for me to use problem-based learning as the primary classroom mode, since students can get things done in class that they would only have been able to do at home without the wireless tablets," states Carlson, who adjusts his class syllabus to match the students' capability, rather than sticking to the original schedule.

Computer science students used the iPAQ personal PCs to file reports and research topics during a senior design course this year, and the handheld units were used as a resource in technical communications courses during the winter quarter. The hand-held technology was also examined by electrical and computer engineering faculty for future classroom educational projects.

Faculty are already planning on ways to integrate tablet and iPAQ PCs in other courses for next year. And, Rose-Hulman received a second grant to expand the HP mobile technology program.

"We imagine an educational environment where all faculty and students are intimately interconnected via mobile technologies," Western states. "This environment will enable us to transcend our existing concepts of faculty and student interaction and realize benefits that have been previously unthinkable." ■



OUTSTANDING TEACHER
DAVID STIENSTRA

CULTIVATING EDUCATIONAL ENTHUSIASM

BY DALE LONG

David Stienstra, who specializes in fracture mechanics and fatigue analysis, certainly breaks the mold when it comes to creating an energized educational environment.

He's known for wearing brightly colored Hawaiian shirts on the coldest days of winter, appreciating the musical styles of rap artist Eminem, and finding humor in the minutest detail of failure in mechanical structures.

"I find the world kind of funny," Stienstra admits.

It's that right combination of humor, understanding and attention to detail that endears Stienstra to his students, and provides them with the confidence to solve problems when they become professional engineers. He also received the Dean's Outstanding Teacher Award in 2003, joining a long list of distinguished Rose-Hulman faculty members.

"Professor Stienstra's sense of humor is very close to that of a college student. This makes him seem a lot more like one of us, than just another professor handing out homework," states Drew Lyons, a senior mechanical engineering major. "Although he can be a strict grader, it didn't really matter to me because I enjoyed going to his class, and I learned more than I did with any other professor."

Emily Timperman, a sophomore mechanical engineering student, adds, "Dr. Stienstra keeps the material interesting, and his style of teaching makes learning less of a chore. He is always ready to lend a helping hand with class work or simply impart some much-needed wisdom on a group of demanding students."

Stienstra's caring attitude — in and out of the classroom — is showcased in a story related by Andrew Courtice, a senior mechanical engineering major who was having trouble understanding concepts in Stienstra's Mechanics of Materials course. The student came to the professor with 12 problems he couldn't understand.

"I was reviewing the online CD questions for an upcoming test the next day. Dr. Stienstra got out his CD, turned on his computer, and went through

Stienstra exhibits samples of fatigue he uses in class

each and every one of them with me. It took about two hours," Courtice states. Afterward, Stienstra spent even more time discussing issues about career options and how the student could succeed in the business world.

"There are teachers that teach just the material and there are those, like Dr. Stienstra, that go the extra mile to mold students, not only into engineers but as adults, too. It is what makes Rose-Hulman such a unique place. I appreciated his time and caring attitude very much," the student says.

Stienstra, a member of the Rose-Hulman faculty since 1990, quickly brushes aside such accolades. A satisfying smile is his only acknowledgement.

"My goal is to help students develop a strong engineering intuition. Our students have to have a sure way of checking their calculations. If not, they're a slave to the computer and the numbers being cranked out," he states. "There's something to be said for the fundamental understanding of the engineering process. How you get there is a good question. I haven't come up with all of the answers yet. The good thing about teaching is that you keep trying."

"I love to help a student develop from their freshman year, when they know something, but not a lot, to their senior year, ready to start their careers or going onto graduate school. Then, the really fun part is seeing what the graduates go out and become after they leave (Rose-Hulman)," Stienstra continues. "As a professor you think, 'Do I really want to be driving the car this guy (alumnus) is designing?' And, you step back and think, 'Sure, I would be proud to drive that car.' You want alumni to feel that they have been given the tools to handle any situation in their career."

Stienstra is known for bringing innovative ideas into his material engineering and design classes. He helped change the mechanical engineering department's freshman design course to integrate elements of design, build and test procedures, rather than just paper design. During an educational sabbatical for the 2003-2004 academic year, Stienstra spent the fall and winter examining teaching modules at the renowned problem-solving program at McMaster University (Hamilton, Ontario) for possible adaptation at Rose-Hulman. He is spending this spring visiting alumni and other professional engineers to get examples of real-world hardware design drawings for a newly required junior-level course. The idea for the course resulted from the academic department's board of advisers. He also has

attended lectures by fellow Rose-Hulman faculty, many of whom have also earned the Dean's Outstanding Teacher Award, to learn how to be an even better educator.

"At Rose-Hulman, we're blessed with outstanding students. They can all do the work. The question is: 'How do you reach them?' Do you make them practice more? Do you sit on them and make them work even harder? Or, do you inject a little humor and liven up the environment?" the professor asks in a rhetorical fashion. "You want students to have enthusiasm for the material being

taught. For me, bad humor helps bring full attention. If I find something amusing the students might find it amusing too. If I can meet them half way, I'm willing to do that. Quite frankly, probably half of the class feels sorry for me."

Stienstra came to teaching after working two years as an associate engineer in the future product design and development department of General Motors Corporation's Hydra-matic division (Ypsilanti, Mich.). The 1978 Iowa State University mechanical engineering graduate found that he enjoyed teaching new design techniques to co-op students from General Motors Institute (now Kettering University). A two-year teaching assistant/research position followed at the University of Iowa, where he earned his master's degree, and he became a mechanical engineering instructor at Texas A&I University (now Texas A&M-Kingsville) for three years, introducing a new freshman-year design course. Stienstra earned his doctorate in mechanical engineering at age 34 from Texas A&M University after serving as a lecturer, graduate research assistant and teaching assistant for three years.

"I quickly found out that being in the classroom, with students who wanted to learn, was just plain fun," he says.

With that knowledge, Stienstra knew he wanted to teach at Rose-Hulman, an institution known for its emphasis on undergraduate engineering and science education, and classroom instruction. Other members of the college's faculty who specialized in material sciences have included James Eifert, former vice president of academic affairs and dean of faculty (now president of the Rose-Hulman Ventures technology and business incubator) and Rose-Hulman President Samuel Hulbert.

"Rose-Hulman and I had a shared (educational) mission. It was a match made in heaven. I got really lucky," he says.

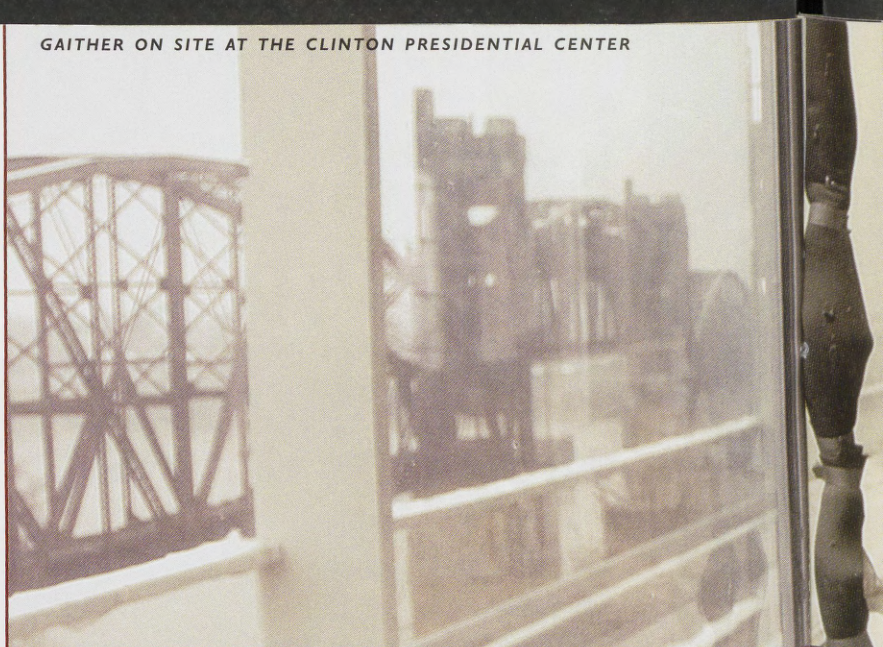
Stienstra's students may be the lucky ones. ■

"You want students to have enthusiasm for the material being taught. For me, bad humor helps bring full attention. If I find something amusing the students might find it amusing too. If I can meet them half way, I'm willing to do that."

Quite frankly, probably half of the class feels sorry for me."



GAITHER ON SITE AT THE CLINTON PRESIDENTIAL CENTER



ON THE JOB

Jaret Gaither couldn't foresee the importance his first vote in a presidential election would play in the foundation of his budding civil engineering career.

For the past two years, the 2002 Rose-Hulman Institute of Technology graduate and Phelps Program Management engineer has been heavily involved in the design and construction of the exhibitory section of the William J. Clinton Presidential Center in Little Rock, Ark. That role has put him in contact with the former president and former members of his administration involving exhibits, project management and construction coordination.

The \$165 million project is unique in scope, stature and accessibility to the public, and could become the signature landmark of Clinton's eight-year presidency. It features two main buildings on a 30-acre city park along the south bank of the Arkansas River in Little Rock. The 70,000-square-foot museum is architecturally striking, with its signature glass-enclosed bridge which is cantilevered 90 feet up to the Arkansas River. It is also a renovation of the abandoned Rock Island Railroad Bridge and adaptive reuse of the Choctaw Station, built in 1899. Secure collections storage is located at and below grade in the archive building, another 70,000-square-foot building defined as a linear building with a two-story glazed pavilion, which contains research offices and support spaces for archivists and scholars.

"Everything about this project is unique, from the building

design to the client (Clinton) to the level of design that has been incorporated and all of the different firms that are involved," Gaither states about the nation's 12th presidential library, scheduled to open on November 18th. "There is no other structure like this one in the world."

Clinton's goals for the project were simple: "I hope that it (the center) will not only allow people to see these remarkable eight years but will help to empower people, and give them the confidence to believe that they can build America's greatest days in the new century."

Center visitors will be able to see an exact replica of the White House's Oval Office on the upper level of the museum building, with a re-creation of the Cabinet Room on the lower level and a presidential limousine on permanent display in the lobby. Another interesting display will be "The Crystal Tree of Light" a glass sculpture, created by Dale Chihuly, that was part of the 2000 Millennium Celebration.



GAITHER, SECOND FROM LEFT, JOINS FORMER PRESIDENT BILL CLINTON, FIFTH FROM LEFT, AND OTHER MEMBERS OF THE PROJECT TEAM AT THE "TOPPING OUT" CEREMONY AT THE CONSTRUCTION SITE.



B AT THE CLINTON PRESIDENTIAL CENTER

ALUMNUS INVOLVED IN CONSTRUCTION OF EXHIBIT SECTION

BY DALE LONG

"Designing the Oval Office and Cabinet Room was difficult because access to those areas is extremely limited (to the public). We had to go by the dimensions that were taken on Clinton's last day in office," Gaither said.

One of the biggest challenges was developing the content for the exhibits, including the 110-foot-line Presidential Timeline that presents a substantial history of the day to day work of Clinton and his administration utilizing photographs, videos and interactive stations. In alcoves flanking the timeline, a series of exhibits will highlight a range of domestic and foreign policy efforts and achievements.

"President Clinton has been very involved in the review and selection of content that will be displayed in the museum, which means we had to reach out to former staff members which are now working throughout the world," said Gaither, adding that the library was funded by private donations. "I was amazed by the involvement by President Clinton on the main building and the

exhibit design. He has been present for on site meetings as well as meetings in New York to review and direct building and exhibit design.

"I arrived on site two weeks after the initial site work had started. Initially, I was involved in the whole project but for the past year my efforts have been focused solely on the content of the exhibits and the coordination of the construction of these exhibits," Gaither said.

The timeline and other aspects of the museum have required Gaither working with a large number of subcontractors, including a millwork contractor, an audiovisual integrator, three media producers, and five exhibit fabricators. The library architect is Polshek Partnership LLP (New York City), the exhibition designer is Ralph Applebaum Associates (New York City/London), and the landscape architect is Hargreaves Associates (San Francisco).

"Project management was an area that I knew relatively little about before working with Phelps Program Management (a division of Hensel Phelps Construction Company). Professionally, this has been a very rewarding position to be involved in because of the coordination," said Gaither of his first major project. "I work on site with the construction crews and designers on a daily basis. It is a lot of work, but very rewarding ... The work ethic that was emphasized at Rose-Hulman has proven to be a great advantage." ■



ARTIST'S RENDERING OF THE CLINTON PRESIDENTIAL CENTER

PRESERVING HIS HERITAGE

by BRYAN TAYLOR

*Alumnus Robert Wilkins Plays Key Role in
National Museum of African American
History and Culture*



The death of a friend and mentor spurred Robert Wilkins to do something about preserving his heritage.

The result is the National Museum of African American History and Culture in Washington, D.C., which was signed into law by President George W. Bush on Dec. 16. Wilkins, a 1986 chemical engineering graduate and now a Washington D.C., attorney, played a key role in getting the museum established.

Under governance of the Smithsonian Institute, the museum will be devoted to documentation of African American life, art, history and culture. Site selection for the museum is under way. Wilkins reports the museum will "document and celebrate the contributions of African Americans to this nation in all areas from politics to culture to fine arts to business to invention to sports."

Multimedia exhibits and artifacts will be part of the museum, Wilkins says. "It will be up to smarter people than me as to how it comes together. I'm just an engineer and an attorney who doesn't know much about those matters."

What Wilkins does know about is energizing a cause. His involvement in the museum effort began in 1996 when an African American elder named Louis Fraction at his church died. "I worked in a manhood mentoring program for young men in our church with Brother Fraction," Wilkins recalls. "After his death, my wife and I visited with his wife and family, and spent the evening listening to all of the stories of days gone by – segregation, civil rights ... great events in the life of the family.

"As I was driving home that night and reflecting on what had been shared, it just caused me to ask the question: 'Why isn't there a national museum in Washington dedicated to African American history and culture?'"

The question led Wilkins to the Internet where he "began puttering around" doing research. He discovered much work had already been done on this topic dating back almost 80 years.

"What I found was the movement died in 1994, and when I became interested, the work was at an ebb," Wilkins remembers. "My goal was to re-energize the movement. I didn't plan to get involved as deeply as I did."

Wilkins' quest moved from the Internet to his basement. "I gathered some friends from law school and D.C. We started meeting every month or two in my basement and talked about who to get involved and what strategies should be implemented."



Wilkins in his office with Venable LLP.

A non-profit group called National African American Museum & Cultural Complex, Inc., was formed, and Wilkins became head of that organization, eventually quitting his job with the public defender's office in Washington, D.C., to work full-time on this project. "It was very much an act of faith. The non profit didn't have money for any salary, and my wife was seven months pregnant with our second child. We went from a two-income family to a one-income family."

The largest obstacle facing the group was an attitude among some people that "it hasn't happened before and it isn't going to happen now," Wilkins recalls. "There were a lot of people who really weren't interested in this because they saw it as a longshot. I, on the other hand, was obsessed with making it happen."

At about the same time Wilkins put his obsession into action, renewed interest in the project surfaced in Congress with Senator Sam Brownback (R.-Kan.) and then Congressman J.C. Watts (R.-Okla.) who began working with longtime museum supporter Congressman John Lewis (D.-Ga.). Wilkins began working with the lawmakers. He provided background research, helped draft legislation and gathered support through Congress.

The work on Capitol Hill resulted in a 2001 bill to implement the national museum. It failed, but led to another bill establishing a commission to set up a plan for a museum.

continued on next page

Wilkins (who now had begun practicing white-collar defense and intellectual property litigation full time with the law firm Venable LLP) was appointed to the commission that included museum experts, historians, business people and prominent citizens such as actress Cicely Tyson and baseball great Hank Aaron.

Commission members were able to take the project to the next level, including an April 2003 action plan titled "The Time has Come" that led to May legislation introduced to establish the museum. It passed and was signed into law by the president in December.

"We can't say the mission is accomplished yet...I won't say that until the doors actually open, but we've come a long way," Wilkins says.

"I feel like I've been a part of making history by building this museum," Wilkins states. "It is a great reward to be a part of this movement to honor the massive contributions of all these unsung heroes who made it possible for me to go to Rose-Hulman Institute of Technology and Harvard Law School, and to work at a major law firm."

"I've had a very good life in 40 great years, but it's also been a struggle in a lot of ways because there's a tendency in human nature to be very quick to judge people or to stereotype them because of the activities of a few," Wilkins said. "There's really too much intolerance. We definitely see it with racial conflicts, discrimination and religious intolerance.

"Hopefully what this museum can do – like the Holocaust Museum – is to let people see for themselves firsthand the dangers of intolerance. Ultimately we've got to understand each other and to respect each other. I hope that's what this museum can do."

“

*My biggest joy will come when the doors open
and I can take my two sons to the museum
and they will know their father had a role in it and,
hopefully, they will **appreciate what the museum
stands for and take advantage of the
opportunities life has for them.***

”

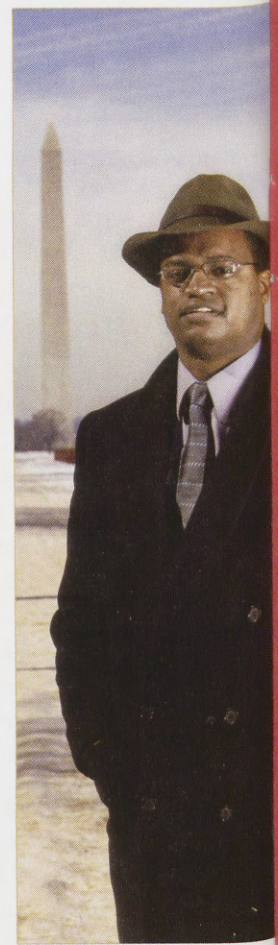
STANDING UP FOR BELIEFS THRUSTS WILKINS INTO NATIONAL ARENA

Standing up for what he believes is right is nothing new for Robert Wilkins, a 1986 Rose-Hulman chemical engineering graduate and a 1989 Harvard Law School graduate.

Wilkins was the lead plaintiff in *Wilkins, et al. v State of Maryland*, winning landmark 1995 and 2003 settlements in a racial profiling civil rights lawsuit against the Maryland State Police. That litigation stemmed from him and some family members being stopped in their car and subjected to a search by a police dog while traveling along an Interstate highway in Maryland.

The settlement resulted in systematic compilation and publication of highway traffic stop data by race. That process inspired a June 1999 executive order by President Bill Clinton, federal "Traffic Stops Statistics Act" bills, and numerous state legislative proposals around the country.

Wilkins' expertise in racial profiling has landed him on ABC News Nightline, National Public Radio, The CBS Evening News, CNN, and Fox News. He also has been quoted in The Washington Post, The New York Times, U.S. News & World Report, Esquire Magazine and Ebony Magazine. In addition to media appearances, he has appeared before Congressional panels.



Other achievements by Wilkins include the following:

Serving for 10 years in the Public Defender Service for the District of Columbia;

Being named the 1999 "Practitioner of the Year" by the University of Maryland Black Law Students Association;

Receiving the honor as the 2001 "Pro Bono Attorney of the Year" from the Maryland American Civil Liberties Union;

Being selected as one of the "40 under 40 Most Successful Litigators in America" by the National Law Journal; and

Receiving the Henry W. Edgerton Civil Liberties Award from the American Civil Liberties Union Fund of the National Capital Area.



INMIGRATION INVOLVES ALUMNI IN RECRUITING STARTUP COMPANIES TO INDIANA

Rose-Hulman Ventures and Indiana State University recently announced a new initiative to involve their alumni to recruit new startup companies to Terre Haute.

The program — called INmigration — seeks to identify, support and recruit new companies to the Wabash Valley and Indiana over the next five years. The goal is to attract these companies to locate in the Terre Haute incubator facilities at Rose-Hulman Ventures, Indiana State University, or other incubators and technology parks in Indiana.

Joining Rose-Hulman and Indiana State University as partners in the INmigration effort are the city of Terre Haute, the Indiana Department of Commerce, the Terre Haute Area Economic Development Corporation and the Indiana Venture Center in Indianapolis.

Jim Eifert, president of Rose-Hulman Ventures, said the INmigration program emphasizes three competitive advantages for businesses to locate in Indiana. “Indiana enjoys a disproportionately large pool of engineering talent relative to the rest of the country,” he noted. “The cost of living in Indiana is significantly less than in other areas of the country where entrepreneurship and startup activity are high. And, from a logistics and distribution perspective, more than 50 percent of the people living in North America are within a one-day drive of Indianapolis.”

Indiana State University President Lloyd W. Benjamin III said, “This is a significant collaboration between ISU and Rose-Hulman that has the potential to attract fledgling businesses back to the Wabash Valley where they can be supported and further developed. The results are many and range from serving as an economic generator to enhancing the cultural life of our community.”

Eifert said, “The incubator facilities at Indiana State and Rose-Hulman Ventures



Jim Eifert, president of Rose-Hulman Ventures, addresses news conference audience announcing the INmigration program.

have formed an important partnership that combines these assets with the educational opportunities available to provide a particularly attractive location for startup companies.”

In addition to technical resources, Indiana State University offers young companies business assistance expertise. Benjamin explained, “Another major benefit from this work is to create opportunities for our students and faculty to become engaged in some of these entrepreneurial efforts. This speaks directly to our commitment to engagement and experiential learning.”

Eifert announced that the first INmigration meeting Feb. 11 in Chicago has resulted in further discussions with three potential clients who are Rose-Hulman alumni. The Chicago session attracted about 25 business officials, he said.

As a result of the meeting in Chicago, Eifert invited two high-tech companies involved in software and optics technology to Rose-Hulman Ventures to present their business plans and to discuss potential investment opportunities.

Kevin Burke, mayor of Terre Haute said, “This remarkable partnership is not only historic in its makeup but also in the potential that it holds. Our future has never been brighter.”

Andrew Conner, project manager with the Indiana Department of Commerce said, “Entrepreneurs are taking notice that Indiana is a great place to do business. From sweeping changes in the state's tax code, to investing in research and development, and the creation of Certified Technology Parks, Indiana is moving forward with dramatic initiatives that attract businesses to our progressive and business friendly climate. This partnership brings together a unique combination of resources to attract and nurture the high-growth businesses that are essential to a growing economy.”

Eifert added, “INmigration is a new approach to combine our academic, private sector, state and local government support to create new business formation. This initiative will enable Indiana State, Rose-Hulman, Ivy Tech State College and St. Mary-of-the-Woods to increase educational and career opportunities that will encourage college graduates to remain in Vigo County.”

Additional INmigration meetings are planned this spring at various locations around the country. ■

VISIT THE NEW ROSE-HULMAN VENTURES WEB SITE AT

Visit <http://www.rhventures.org>

A MESSAGE FROM YOUR ALUMNI ASSOCIATION

I would like to welcome the five newest members to the Rose-Hulman Alumni Advisory Board: John Brabender '81, Ed Wheeler '82, Shawn Patterson '95, Jeff Papa '93, and Jason Zielke '00. As a faculty member, Ed's membership on the board links us even closer to this key part of our school. Thank you for volunteering your time and energy!

The May 1st retirement party for Dr. Hulbert will be something you do not want to miss. Please plan on attending this historic event.

Bunny Nash, assistant director of Alumni Affairs and Special Events, has decided to accept the full-time position of manager of Hatfield Hall and director of Student Performing Arts. Bunny has worked with Rose-Hulman alumni for over 5 years and will be greatly missed by all of us. Thank you, Bunny! We welcome Carey Treager Huber who has replaced Bunny in the alumni office.

Not enough space for ten, but how about my top five list of things you could do for Rose-Hulman in 2004!

• #5 – Take a new faculty member to lunch. Did you know that 40% of the faculty have been hired in the past 3 years?

• #4 – Refer a high school student to the admissions office. In addition to Rose Alumni Recruiting Engineers (RARE) efforts, individual referrals are received every year. Please forward the name, address, high school, and year of graduation to the admissions office.

• #3 – Be a mentor for a Rose-Hulman student. We currently have 40 students and alumni matched in this new program, but 28 students are waiting for alumni volunteers!

• #2 – Buy a brick. Almost 1,000 bricks have been sold, raising \$280,000 for the Reflection Plaza. What a great way to leave a lasting legacy for yourself or your family.

• #1 – HOMECOMING 2004! Meet the new president, visit the new alumni center, and see all your old friends. Make your reservations now for October 8th and 9th. With the Covered Bridge Festival being the same weekend, hotels are filling up fast.

The momentum is building for all of the special events this year. Come join us in the celebration!

Doug Stearley, President

Rose-Hulman Alumni Association

dougstearley@alumni.rose-hulman.edu

CAREY TREAGER HUBER JOINS ALUMNI STAFF

A familiar face has returned to Rose-Hulman to serve in the alumni office.

Carey Treager Huber is the new associate director of alumni affairs and special events. She fills a position vacated when Bunny Nash was appointed to serve full-time as the manager of Hatfield Hall and director of student performing groups.

Huber comes to her new position from Indiana University East where she worked for seven years, most recently as assistant dean of students for campus life. She holds a master's degree in college student personnel administration from Indiana State University.

This is not the first time Huber has worked at Rose-Hulman. From 1995 to 1997, she worked at Rose-Hulman as assistant director of student activities as a graduate intern.

"Carey brings a strong background of working with students and groups," said Alumni Director Brian Dyer. "She will work closely with two of our fastest growing populations, Student Alumni Association, and Graduates of the Last Decade G.O.L.D."



Carey Treager Huber

Huber also will be responsible for organizing and providing programming and support for alumni clubs around the country. In addition, she will assist in organizing homecoming and commencement activities.

"We are excited to have Carey join our staff. She has many new ideas to keep alumni engaged and connected to Rose," Dyer said. "We are glad to have her return to Rose, and I believe students and alumni will enjoy working with her for a long time."

"Rose-Hulman is a campus with a family feel and a strong integrity," Huber said. "Having worked here before and knowing the environment and the true sense of community that exists made it a very appealing opportunity to join the alumni office. I look forward to working with and to serving all of our alumni."

Dyer praised the work of Bunny Nash, who had been in the alumni office since 1998, and also served part time as Hatfield Hall manager since 2002. "Bunny had a great rapport with alumni of all ages and she will be missed," Dyer said. "But the growing use of Hatfield Hall by the campus community necessitated the establishment of a full-time position for the theater. With her passion for theater and her involvement with student performing groups, Bunny was a natural fit for the position, and we wish her well." ■

Huber can be contacted via e-mail at carey.treagerhuber@rose-hulman.edu or at Rose-Hulman Institute of Technology, 5500 Wabash Avenue, Terre Haute, IN 47803.

1960

R. Larry Berger (E.E.) has retired as president of Easterday Construction Co. after 41 years. He plans to maintain his residence in Culver, Ind., with some winter visits to Gold Canyon, Ariz.

1962

Stephen D. Ban (M.E.) has taken a new position as director of the technology transfer division of Argonne National Laboratory in Chicago.

L. Robert Carter (C.E.) is lead auditor for TUV Rheinland of North America, a firm that focuses on quality and environmental management system assessments.

1967

Charles Divine (E.E.) is

now a sales executive with Cap Gemini Ernst & Young's Technology Services Practice. He will be selling the firm's IT consulting services to Fortune 500 companies in Southern California. He joins the company after four years as a business development manager with Deloitte & Touche.

1969

Paul Broughton (M.E.) was the subject of a real fish story in his hometown paper at Butte Silver Bow, Mont. He was featured in an article and photo that told of his catching a 351-pound halibut that measured 89 inches. He caught it on a trip to Seward, Alaska. It was the second largest halibut caught out of Seward. The tail was mounted, and a local fish

house sent three 70-pound boxes of his catch to Broughton.

1974

Tracy Walkup (M.E.) has accepted the position of business development manager for the Atlanta office of Stress Engineering Services, Inc. The company provides system integration, testing and design for the medical and petrochemical industries.

1976

Patrick J. Noyes (M.E.) is the new president and CEO of Stroud Energy, Ltd. in Fort Worth, Texas.

1980

Raymond B. Farmer (M.E.) has been named vice president and chief operating officer of Smithers Scientific Services, Inc.

1981

Scott Cragin (M.E.) has successfully completed all requirements for the degree of Ph.D. in business administration from Oklahoma State University. He has been teaching at Missouri Southern State University since 1989, the same year his father retired from the institution after 20 years.

Bill Lonnberg (M.E.)

was a presenter recently at an Electric Power Research Institute workshop on selective catalytic reduction. The workshop was hosted by Hoosier Energy at its Merom Generating Station where Bill works as a project engineer. He participated with fellow alumnus and Hoosier Energy employee Corie Biggs ('90).

KEEPING IN TOUCH WITH ROSE-HULMAN

My alumni record should include this important news:

Name _____
 Class Year _____ Degree _____
 Address _____
 City _____
 State _____ Zip Plus Four _____
 Telephone: Home _____ Work _____
 Fax _____
 E-mail: Home _____
 Work _____

News for Echoes _____

- ☐ Promotion
- ☐ New Job
- ☐ New Address
- ☐ New Telephone
- ☐ Marriage
- ☐ Death
- ☐ Birth
- ☐ Award, Honor

SEND TO: Editor, Echoes, Rose-Hulman Institute of Technology, 5500 Wabash Avenue, Terre Haute, IN 47803
 OR E-MAIL: bryan.taylor@rose-hulman.edu

SPRING 2004

Sam Reed (M.E.), president of BSA LifeStructures, moderated a recent panel of healthcare administrators who shared their perspectives on how they manage healthcare in relation to healthcare facilities. The panel was part of the 2003 Midwest Healthcare Engineering Conference and Trade Show in Indianapolis. "These administrators realize that putting money into building and maintaining facilities and listening to the ideas and concerns of their engineering team must be a priority," Reed said.

Wendal Turley (Ch.E.) has been named plant manager of ATOFINA Chemical's facility in Beaumont, Texas. The facility employs 89 people and manufactures methyl mercaptan, ethyl mercaptan and dimethyl sulfide. He moves to that position from ATOFINA Chemical's facility in Houston, Texas, where he has been plant manager since 2000.

1985

Garth Ash (Ch.E.) reports

that his productivity firm, CarterAsh Inc., recently merged with Moore & Associates Inc. Garth will serve as vice president and corporate secretary.

Robert Jenkins (M.E.) is now vice president of C&I Sales, Detroit Diesel Corp. He resides in Canton, Mich.

Scott Oblander (Ch.E.) and his wife, Margie, announce the birth of their first children, twin girls Katie and Amy. Scott continues in his position as project engineer for SNC-Lavalin Thermal Power.

1986

Duane R. Reinholt (Ch.E.) and his family welcomed second son, Anthony Robert, born on Sept. 21. They reside in Pittsburgh.

1988

Mike King (M.E.) and his wife, Karen, update *Echoes* with news of their first child, Luke, born last spring.

1989

Stacey Bowling (E.E./Math.)

HOMEcoming 2004

October 8-9, 2004

Make hotel reservations early! Homecoming is the first weekend of the Covered Bridge Festival and hotels will be at a premium in the Terre Haute area that weekend.

has recently completed two master's degrees from the Kelley School of Business at Indiana University. He received a master of science in global supply chain management and a master of business administration. He continues to reside with his family in Chandler, Ariz., where he is employed by Orbital Sciences Corp.

Timothy A. Lawson (C.E.) and his wife, Laurie, announce the birth of son Aiden Conor, born Oct. 30.

1990

Corie Biggs (E.E.) was a panelist recently at an Electric Power Research Institute workshop on selective catalytic reduction. The workshop was hosted by Hoosier Energy at its Merom Generating Station where Corie works as a project engineer. He participat-

ed with fellow alumnus and Hoosier Energy employee Bill Lonnberg ('81).

Fred Jacobs (Chem.) announces the birth of son Matthew Shengwen Jacobs, on Dec. 22.

Dennis Moore (M.E.) and his wife, Anita, announce the birth of son Mackenzie Leland, born Oct. 2. He joins big brother Trey. Proud dad, Dennis Jr., notes the boys are grandsons of Dennis (Class of '64, Math.) and Hazel Moore.

Brian Runkle (E.E.) is now president of GE Driver Development in Salt Lake City.

1991

Chris Arnold (M.E.) has been promoted to manager – corporate engineering for Roll Coater. He has respon-

MACK RECEIVES NATIONAL TECHNOLOGY AWARD

Chris Mack (Phy./Chem./E.E.) was honored last year with a 2003 SEMI Award for North America for his contributions to the advancement of semiconductor manufacturing technology.

Mack, vice president of lithography for KLA-Tencor Corp., was recognized for his development of software programs that have enabled process engineers to increase the productivity of the lithography process. His



Chris Mack, right, receives national SEMI award from Stanley Meyers, President of SEMI.

work has driven changes in masks, imaging, tools, photoresist and measurement.

In 1990, Mack left his job at the U.S. Department of Defense and founded FINLE Technologies. He developed the PROLITH Toolkit of lithography simulation and analysis programs. He has authored more than 100 technical publications on lithography. In February of 2000, FINLE was acquired by KLA-Tencor. ■

sibility for engineering and maintenance at each of the company's four sites.

Jerrod Carter (C.S.) and his wife, Joan, announce the birth of their second child, Alexandria Louise last September.

Jim Fortman (M.E.) and his wife recently welcomed their fourth child, Austin James, born last September. Also, Jim recently accepted a position as the production fabrication engineer with Maque Ambulances in Goshen, Ind.

1993

Chris Kilander (Ch.E.) updates *Echoes* that he and his wife, Kelly, became parents in 2002 when Colin Patrick was born. Also, Chris started a new job last year as quality manager for Cook Urological in Spencer, Ind.

1994

Harold "Hal" Higley (M.E.) and his wife, Lori, welcomed their third child on Nov. 26. Hal is a lieutenant in the U.S. Navy.

Fred Thomas (Ch.E.) has moved to Panama City, Fla., to take a position with Applied Research Associates, Inc., as an Air Force Research Lab contractor at Tyndall Air Force Base.

1995

Matt Frank (E.E.) married Lucretia Vina Rowan last November.

1996

Beth Knoy Brock (M.E.) has received a promotion to team leader of environmental services at Eli Lilly and Company's Tippecanoe Labs in Lafayette, Ind.

Scott Burwinkel (C.E.) recently was promoted to be chief software engineer of the Image Capture and Remittance Processing Group at Fidelity Investments.

David Couto (E.E.) has accepted the position of senior software engineer with the Imaging DSP Group of Zoran Corp. in Woburn Mass.

Dan Ewing (Ch.E.) and his wife, Christa, announce the birth of their second child, Megan Nicole.

Randall J. Johnson (E.E.) reports the birth of son Jordan Nathaniel last June.

1998

Brad Barrett (M.E.) and his wife, Karen, celebrated the birth of their first son, Joseph Bradley Barrett III last October.

Mike Pilcher (E.E.) and his wife, Mary, became parents when daughter Catherine was born last June. Mike has accepted the RF Engineering Section Manager position at the Southwest Research Institute in San Antonio, Texas.

New company leans on Rose-Hulman alumni leadership

A newly formed company called Dynamic Engineering Design has four Rose-Hulman alumni in leadership roles.

The Indianapolis-based company has Andrew Grinstead (Class of '89) as its president along with the following vice presidents: Walter Benefield ('66), John Didat ('88) and John Brown ('94).

The consulting company offers services in the following design areas: civil, structural, architectural, mechanical, electrical, piping, process/chemical, and instrumentation and controls.



Detroit Alumni at the 2004 NAIAS

Nearly fifty alumni and friends gathered for lunch at the Detroit Beer Company before visiting the 2004 North American International Auto Show on January 10, 2004. Pictured above from left to right are: Jeff Fuchs '00, Gregory Hawkins '97, Nellie Hohne '99, Dan Hohne '99, Gavin Smith '99, and friend Callie Yax from U of M Law School.

PIPELINE TO SUCCESS

The newest pipeline in the United States was placed into service last December, and it would not have been possible without a team of Rose-Hulman engineers making it happen.

Morg Bruck (Class of '69) provided *Echoes* with a list of alumni involved in a new pipeline for Marathon Ashland Pipe Line Company, which transports refined petroleum product from Kenova, W. Va., to Columbus, Ohio. Rose-Hulman alumni on the project from Marathon included Bruck, Mike Korkos ('77), Graden Betz ('81), Brent Harris ('81), Matt Strabley ('88), Matt Kintzele ('91), Ian Stallman ('01), and Dan Schwartz ('02). Also involved were alumni Chuck Petersen ('69) and Tim Kolb ('86), both with Petersen Engineering.

For the technical minded among our readers, here are some of the pipeline stats: 150 miles of 14-inch pipe; welded steel; will move approximately 3,500 barrels an hour; design started in 1998; and construction started in 2002.



Alumni Gather in Texas

Bob ('57) and Shirley Bright opened their home to alumni in the Austin, Texas area on Saturday, February 7th. Alumni watched a video message from Dr. Hulbert, and received an update on the recent presidential search.

Barry Portman (M.E.) and his wife, Cindy, had their third child last summer when Cole Wesley was born. Barry has changed companies from Marathon Oil to Kinder Morgan.

1999

David Dusick (M.E.) has accepted a position with QSC Audio Corp. in Costa Mesa, Calif.

Joseph Miller (C.E.) has taken a position with Banning Engineering of Plainfield, Ind.

Brian Rogers (C.S.) and **Kathy Wehner (M.E.)** were married last spring.

2000

Jonathan A. Coppock (E.E.) married Elizabeth Barnhart last spring. They live in Kokomo, Ind., where Jonathan works at Delphi Delco Electronics Systems.

Jennifer Krause Lawrence (C.E.) and **David Lawrence (M.E.)** announce the birth of their daughter, Katherine, last September.

Jennifer Schwartz (M.E.) and **David Sitz (M.E.)** were married last fall. They reside in Beavercreek, Ohio.

2001

Paul Greene (M.E.) has a new position with his current employer, ArvinMeritor, Inc., as a finance and operations analyst. He will report to the vice president and general manager of the North American Light Vehicle Aftermarket. He will remain in Nashville, Tenn.

2002

Steve Corbin (E.E.) married Stacey Austin last October. They live in Bloomfield, Ind.

Maggie Lowry (Ch.E.) and **Chris Lelak (E.E., '03)** were married last September.

NOW ACCEPTING NOMINATIONS FOR THE DISTINGUISHED YOUNG ALUMNI AWARD

The Young Alumni Council in association with the Alumni Office is accepting nominations for the Distinguished Young Alumni Award. The criteria for this award have changed to specifically recognize Rose-Hulman graduates from the last ten 10 years with notable endeavors in career achievement, continued education, community service and/or commitment to their alma mater. This year, graduates from classes 1994 to 2003 will be eligible for the award.

Do you know a recent graduate who's professional and personal accomplishments deserve recognition? Why not honor that individual with a nomination for the Distinguished Young Alumni Award?

The deadline for submissions is June 15, 2004. All Rose-Hulman alumni, faculty and staff are encouraged to submit nominations for this award.

The selection of the award recipient will be made by the Young Alumni Council. The Distinguished Young Alumni Award will be presented at Homecoming 2004.

For more information or to submit your on-line nomination, go to www.rose-hulman.edu/youngalumni.



Naples Gathering

Board of Trustee member Don Scott and his wife, Susan, hosted a reception for Sam and Joy Hulbert in Naples, Fla., on March 1. Attendees included: Front Row, from left: Dolores Nichols, Arlene Kleptz, Patsy Boller, Joann Craig, Seek Potts, Marge Eddy; Middle Row, from left: unidentified, Pat Monahan, Nancy Haynes, Dee Templeton, Kathy Nichols, Sam Hulbert, Joy Hulbert, Barby Thornton, Carolyn Monahan, Carolyn Tate, unidentified, Jim Young, Don Scott, unidentified, unidentified; Libby Gelder, Gene Trummel, Irene Trummel, Laney Meis, Mary Cahill, Margaret Rose, Jerry Rose, George Eddy, Judy Simpson, Roy Potts, Betty Potts; Back Row, from left: Tom Francis, Bill Small, Mary Small, Bob Bright, Susan Scott, Pat Cahill, Shirley Bright, Phil Boller, Harry Craig, Frank Potts, Mary Lou Lewis, Don Lewis, Chick Kleptz, Don Simpson

MARK BRANAMAN NAMED PRESIDENT OF CONGDON ENGINEERING ASSOCIATES, INC.



Mark Branaman

Mark Branaman, a 1989 civil engineering alumnus, has been promoted to president of Congdon Engineering Associates, Inc. (CEA), an Indianapolis firm that has grown 250% in the last

three years. This results-oriented, multi-disciplined consulting engineering firm offers a full spectrum of civil engineering services, including transportation and structural engineering, surveying, civil and site development, and landscape architec-

ture. The firm's growth was recognized in the 2003 Fastest Growing Private Companies list in the Indianapolis Business Journal. Mark replaces founder Judy Congdon who was named CEO in 2003.

Branaman acts as principal in charge of CEA's civil, structural, human resources, information technology and survey departments, as well as oversees overall operations and the company's expansion into Ohio.

"Our long-term goal is to expand into non-Midwestern markets, develop strategic partnerships and continue to expand the types and depth of services we offer," says Branaman. The company already has offices in Toledo, Ohio,

northwest Indiana, and Terre Haute. In addition, it will be expanding into two more Midwestern offices in the next six months to a year.

Branaman also is involved in industry and community affairs. He belongs to the American Society of Civil Engineers, Indiana Water Pollution Control Association, American Water Works Association, Institute of Transportation Engineers and Water Environment Federation. He is also a member of the Indiana Recycling Coalition, Inc., where he has served as a vice president, treasurer and board member. He is also a Registered Professional Engineer in Indiana, Illinois and Ohio. ■

OBITUARIES

1928

Robert F. Taggart (M.E.) died Oct. 28 at the age of 97. He was a four-sport athlete during his Rose days and he played baseball for the Cleveland Indians minor league team in the late 1920s. After the Great Depression in the 1930s, he went to work for O.W. Motz Consulting Engineers in Cincinnati, Ohio, where he worked until his retirement in 1977. He was involved in many large projects for government agencies and universities. He played a role in design and construction of Riverfront Stadium in Cincinnati. Survivors include his son, Walter.

1930

Andrew H. Davy (M.E.) died Sept. 16. He was retired from the Great A&P Tea Co..

1932

William T. Stanley (E.E.) passed away Oct. 26. He was retired partner with Burring Production Co., and lived in Santa Rosa, Calif., at the time of his death.

1933

Charles E. Grogan (E.E.) died Dec. 19 at the age of 91. He served in the U.S. Air Force for 22 years and retired as a lieutenant colonel in 1958. Upon retirement, he and his wife, Marjorie, owned and operated a motel in Jacksonville, Fla. A career highlight included installing the first Indiana State Police Radio Network. Survivors include sons Steven and David.

1935

Meritt F. Myers (Ch.E.) died in January of 2003, according to word received in the alumni office. He was retired CEO of Inland Enterprises, and he lived in the Cleveland, Ohio, area at the time of his death.

1936

Ira M. Long (E.E.) died Oct. 24. He was a retired electrical engineer with the U.S. government.

1941

Benjamin F. Cook III (M.E.) died Sept. 16 in Pewee Valley, Ky., at the age of 84. Survivors include his wife, Mildred and two sons, Mark Lee and Craig Alan. He retired from American Greetings.

Raymond C. Hogan (C.E.) died last November. He was the Heminway Medal winner at the time of his graduation and he was retired from Kaiser Aluminum as a plant manager. Survivors included his wife, Mary and sons Brian and Michael and daughter Susan. He was long-time resident of Park Forest, Ill. He and Mary met at a breakfast for a Catholic student organization when he was a Rose student.

1944

Leroy S. Miller (Ch.E.) passed away in 2002, according to word received in the alumni office.

1945

Ellsworth Staver (Ch.E.) died Dec. 28 at the age of 79 in Indianapolis. He was a chemical engineer for Great Lakes Carbon Chemical,

Dow Chemical, and he retired as director of engineering from Ferro Division of Keil Chemical Corp. in 1994. He had several environmental patents and received five international awards. Survivors include two daughters, Deborah A. Brennan and Elizabeth Staver

1947

Charles L. Babb (M.E.) died Dec. 4 in San Luis Obispo, Calif. He was 85. He was retired from Rockwell International in Columbia, S.C. Survivors include his daughter Criswell Freeman.

Clyde E. "Ed" Cook (C.E.) died Dec. 27. A resident of Indianapolis, he was a well-known professional in the concrete industry retiring in 1996 from Irving Materials. He served many industry boards and committees, including director and president of the Indiana Chapter of the American Concrete Institute. He was a member of the Hall of Fame in the Concrete Industry as recognized by the Ready Mixed Concrete Association and he was a fellow with the American Concrete Institute. Survivors include his son Robert and daughter Deborah Yorio.

1950

Frank William Shoaff died last year at the age of 79. He was a retired business analyst for Dunn & Bradstreet and a resident of Clinton, Ind. Survivors include a son, Tom.

1952

Robert L. Davis (E.E.) has died, according to a report received in the alumni office. He was a manufacturing representative for Robert L. Davis Co. He is survived by his wife, Alice.

1953

John Eugene Foley (E.E.) died Sept. 20 at Danville, Ill., his city of residence at the age of 76. Survivors include his wife, Jean. He worked as an electrical engineer for 30 years at GM Central Foundry.

1968

Gary J. Brown (C.E.) died Oct. 9 at his residence in Fort Wayne, Ind. He was 57 and an engineer for Republic Services and a former vice president for Amax Coal Co. Survivors include his wife, Patricia; stepsons Shaun and Shannon Burget; daughters Julie Perry and Jodie Dancer; and son Cameron.

1974

Hal Main died June 22 in a tree trimming accident. He resided in Bremen, Ind., where he was a plant engineer at Almega Tru-Flex. Survivors include his wife, Mary; two daughters, Jill Pool and Kimberly Kincaid; and two sons, Mark and Brian.

John F. Withrow (Phy.)

died May 4 at the age of 51 in Springfield, Ill. He had been a supervisor of the independent analysis group for Illinois Power Co. Survivors included his wife, Nanci.

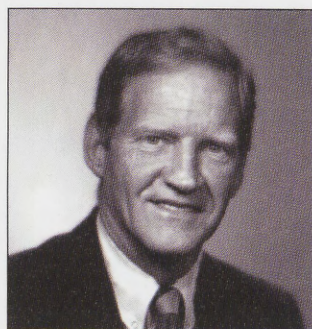
OBITUARIES

FACULTY/STAFF

Gordon K. Haist



Retired professor Gordon K. Haist, 93, of Beaufort, S.C., died Jan. 16 in Beaufort Memorial Hospital. He was a professor of English at Rose-Hulman for 29 years from 1946 to 1975, where he also chaired the Department of Humanities and Social Sciences and served as adviser to the *Modulus* yearbook. His wife, Dorothy Elizabeth Haist, died earlier. Survivors include one son, Gordon K. Haist Jr., of Beaufort; one daughter, Brenda Elizabeth MacLeod of Isle of Lewis, Scotland; and two grandchildren. He graduated with a bachelor of arts degree in English from North Central College in Naperville, Ill., in 1932 and received his master of arts degree from Northwestern University in Evanston, Ill. He studied general semantics under its founder, Alfred Korzybski, and was a founding member of the International Society for General Semantics. He occasionally served as a communication consultant to industry and co-founded the Naperville Sun newspaper. He was a past president of the Pen and Brush Club of Terre Haute.



Jess R. Lucas

Jess Lucas, Rose-Hulman Institute of Technology's vice president of student affairs and dean of students for 26 years, died Feb. 5, at his home in Terre Haute. He was a familiar figure in leading seniors on their final walk through campus on commencement day, bowling in student leagues, and advocating student community service and volunteerism.

"Dr. Lucas always put Rose-Hulman students first," emphasized Rose-Hulman President Samuel Hulbert. "Jess was an outstanding representative and advocate for students and their concerns, continuously challenging institute leaders to make decisions that were in the best interest of the students. Jess' death is a sad day for Rose-Hulman."

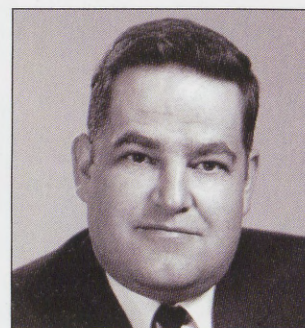
Lucas, 65, retired in 2000 after serving on the Rose-Hulman staff since 1968. He was vice president of student affairs and dean of students from 1975 to 2000, supervising residence hall and student life programs, financial aid, student counseling, campus security, career services and employer relations, inter-collegiate athletics, and international student services.

Before being vice president and dean, Lucas was associate dean of students (1972-75), director of counseling (1968-72) and associate professor of psychology (1968-75). During much of his professional life, Rose-Hulman's residence halls were "home" for Jess, his wife Gwynne, and their three children.

Lucas was a member of National Association of Student Personnel Administrators, American College Personnel Association and American Association for Counseling and Development.

Active in civic affairs, Lucas earned a volunteer award in 1990 for his service as a board member and president of the Mental Health Association in Vigo County. He was also a former board member of the Wabash Valley United Way and Goodwill Industries, and was a former president of the South Vermillion Community School Corporation's Board of Trustees.

Survivors include his wife, Gwynne; one son, Eric Lucas (Class of '84) and his wife, Kim of Laguna Beach, Calif.; two daughters, Angela Harrell of Evansville and Jesolyn Lucas of Bloomington; one sister, Vada Coker; three brothers, Arlie Ray Lucas, Robert and Hughlene Lucas and Jack and Marge Lucas; and three grandchildren.



Charles C. Rogers

Retired electrical engineering professor and department chair Charles C. Rogers, 72, of Terre Haute died Jan. 17 in Union Hospital. He married Marjorie Anderson on Feb. 28, 1954, and she survives. Survivors also include one son and daughter-in-law, Charles and Julie Rogers of New Palestine; two daughters, Cheryl Rogers of Terre Haute and Sandi K. Gregory and her husband Brad of Plainfield; one brother, Robert Rogers and his wife Nancy of Crawfordsville; one sister, Sallie Taylor and her husband Jim of Denver; and six grandchildren. He was a 1960 graduate of Purdue University, where he received his doctorate. He joined the Rose faculty in 1961. He was named an Outstanding Educator of America in 1971, and he served on the national board of directors of Eta Kappa Nu, the national honor society for electrical engineers, and formerly owned Flowerama Flower Shop. He served as a lieutenant in the Air Force and was a member of Maryland Community Church.

REVIEWING PAST PRESIDENTIAL RÉSUMÉS

by John Robson, Librarian and Archivist

John J. Midgley will succeed President Hulbert as the next president of Rose-Hulman, but what of the qualifications of the men who led Rose since the first inauguration March 7, 1883? What did their résumés reveal?

1. Charles Oliver Thompson. 1884-1885.

Age: 47 **Job when hired:** Principal, Worcester County Free Institute of Industrial Science (now Worcester Polytechnic Institute) and Professor of Chemistry **Education:** A.B., A.M., Ph.D., Dartmouth College **Prior jobs:** Principal, Peacham Academy. **Special interests:** Chemistry, technical education, chemical industry consultant

2. Thomas Corwin Mendenhall. 1886-1889.

Age: 45 **Job when hired:** Head, United States Signal Corps and Professor of Electrical Engineering **Education:** Chiefly self-educated. Attended Southwest Normal School, Lebanon OH **Prior jobs:** Chair of Physics and Mechanics, Ohio Agricultural and Mechanical College (now Ohio State University); Chair of Physics, Imperial University of Tokyo; Director, Ohio State Weather Bureau **Special interests:** meteorology and seismology, gravity

3. Henry Turner Eddy. 1891-1894.

Age: 47 **Job when hired:** Acting President, University of Cincinnati **Education:** A.B., Yale University; C.E. & Ph.D., Cornell University **Prior jobs:** Chair, Civil Engineering, Cornell; taught at U. of Tennessee and Princeton University; Professor of Mathematics, Astronomy and Civil Engineering, University of Cincinnati **Special interests:** physics, reinforced concrete, mathematics

4. Carl Leo Mees. 1895-1919.

Age: 41 **Job when hired:** Physics Professor, Rose Polytechnic since 1887 **Education:** M.D., Starling Medical College, Columbus, OH; post-graduate work University of Berlin **Prior jobs:** Professor of Physics, Male High School, Louisville; Professor of Chemistry and Physics, Ohio University; acting president Rose Polytechnic, 1890 & 1894-1895 **Special**

interests: chemistry and physics. Served as Rose physician

5. Philip Bell Woodworth. 1921-1923.

Age: 56 **Job when hired:** War Plans Division, General Staff, U.S. Army. **Education:** B.S., Sc.D., Michigan State College (now Michigan State University); M.E., Cornell University; post-graduate work University of Berlin **Prior jobs:** Professor of Engineering and Physics, Michigan State; Dean of Engineering, Lewis Institute (merged into Illinois Institute of Technology) **Special interests:** member of the Indiana bar and partner in Rummler, Rummler & Woodworth law firm

6. Frank Casper Wagner. 1923-1928

Age: 59 **Job when hired:** Professor of Mechanical Engineering, Rose Polytechnic **Education:** B.S., A.M. University of Michigan **Prior jobs:** Engineer, Thomson-Houston Electric Company; Professor of Mechanical Engineering, University of Michigan **Special interests:** power engineering

7. Donald B. Prentice. 1931-1948.

Age: 43 **Job when hired:** Dean of Engineering, Lafayette College **Education:** Ph.B., & M.E., Sheffield Scientific School, Yale University; M.A. Lafayette College **Prior jobs:** Professor of Mechanical Engineering, Yale and Lafayette **Special interests:** keeping Rose afloat during Great Depression and WWII

8. Ford Lee Wilkinson. 1949-1958

Age: 54 **Job when hired:** Dean, U.S. Naval Post-Graduate School **Education:** B.S., U.S. Naval Academy; M.S. Columbia University **Prior jobs:** 10 year active duty naval service, including submarine; Chief Engineer, Riley Stoker Corporation; Professor of Mechanical Engineering, University of Tennessee; Dean, Speed Scientific School, University of Louisville **Special interests:** improving campus – BSB Residence Hall, Student Center, Shook Field House

9. Ralph Alexander Morgen. 1959-1961

Age: 56 **Job when hired:** Director of Research and Professor of Chemical Engineering, Purdue University **Education:** B.S., Ph.D., U.C. – Berkeley **Prior jobs:** Professor of Chemical Engineering, University of Florida; Program Director —



continued on next page

Looking Back cont...

Engineering, National Science Foundation **Special interests:** importance of research in effective engineering instruction

10. John Alexander Logan, 1962-1976

Age: 54 **Job when hired:** Chair and Professor of Civil Engineering, Northwestern University **Education:** B.Sc., B.S.C.E., University of Saskatchewan; M.Sc., D.Sc. Harvard University **Prior jobs:** Professor, Iowa State College and University of Missouri; staff member, International Health Division, Rockefeller Foundation; consultant, World Health Organization **Special interests:** public health, environmental engineering, city planning

11. Samuel Foster Hulbert, 1976-2004

Age: 40 **Job when hired:** Dean and Professor of Bioengineering, School of Engineering, Tulane University **Education:** B.S., Ph.D., Alfred University **Prior jobs:** Professor of Ceramic and Bioengineering, Clemson University **Special interests:** biomedical implants, athletics

In all, Rose has vested its leadership in an eclectic mix of academic talent, on the average just shy of the 50th birthday. While engineering dominates; a surprising number came from the pure sciences. Only two left because of campus and board dissatisfaction – Woodward and Morgen. The others proved to be solid choices and each strengthened the school's academic reputation and, as possible, made improvements to the campus buildings and infrastructure. Each brought a vision for Rose. May the vision continue.

Note: Gaps between some terms were filled by interims.

ALUMNI EVENTS

For more information about any of these events, contact Brian Dyer, director of alumni affairs and special events, at 812-877-8359 or via e-mail at brian.dyer@rose-hulman.edu

April 24, 2004

Atlanta Alumni Reception/Dinner

May 1, 2004

Celebration of the Hulbert Years

A special evening to honor Sam and Joy Hulbert
Sports and Recreation Center on campus

May 8, 2004

Career Achievement Awards Presentation
Honors and Awards Banquet on campus

May 13, 2004

Senior Send Off

Sponsored by the Alumni Association

May 28, 2004

Alumni Association Advisory Board
On campus

May 29, 2004

Commencement

July 4, 2004

Indianapolis Indians Baseball Game

July 27, 2004

Annual Summer Golf Outing
Harbour Trees Golf Club
Noblesville, Indiana

Alumni Gather in Vero Beach



From Left to Right:

Nancy Boesenberg,
Chuck Boesenberg,
Eva Gurley,
Bill Gurley,
Brian Dyer,
Sharon Baumgardt,
Jim Baumgardt,
David Haynes,
Morris Cleverley,
Dave Bundy,
Joy Hulbert,
Mark Richter,
Larry Tetzloff,
Daniel Hedman,
Sam Hulbert,
Simeer Baker,
Daniel Baker,
John Trimpe



PARTING SHOT

Pick a card, any card. The admissions office received an overwhelming response to its request for alumni business cards to be placed in folders in the admissions waiting room for viewing by prospective students and their parents. Expecting a few hundred cards, the office received nearly 2,500. Thanks to all alumni who participated.

Echoes

ROSE-HULMAN INSTITUTE OF TECHNOLOGY

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