



Carnegie Mellon

- 8 ASK ANDREW
- 9 FACULTY AWARDS
- 10 NEWS BRIEFS
- 12 INTERNATIONAL DISPATCHES

"The Right Person To Lead This Great University"

Bruce Gerson

He's the right person, at the right time, for the top job, again. That's the overwhelming consensus of the Presidential Review Committee, which recommended the reappointment of Carnegie Mellon President Jared L. Cohon. The Board of Trustees approved the committee's recommendation at its May 21 meeting and appointed Cohon to a third five-year term, starting July 1.

"Jared Cohon has been, and will continue to be, an exceptional leader of Carnegie Mellon University," said CONTINUED ON PAGE THREE

All Smiles!



COMEDIAN AND EDUCATION ADVOCATE BILL COSBY KEPT EVERYONE IN SMILES - INCLUDING PRESIDENT JARED L. COHON - AT CARNEGIE MELLON'S 110TH COMMENCEMENT ON SUNDAY, MAY 20. COSBY TOLD THE 2,100 STUDENTS RECEIV-ING DEGREES TO JUST BE THEMSELVES. "DON'T TALK YOURSELF INTO NOT BEING YOU AT ANY TIME," HE SAID. "YOU DON'T HAVE AN EXCUSE THAT WORKS WHEN YOU SAY, 'BUT I WAS NERVOUS.' THAT'S NOT YOU." OF COURSE, COSBY gave the speech in his own unique style, with lots of jazz scatting and other ${\sf C}$ osbyisms thrown in for good measure. For more on commencement, including a full transcript of Cosby's speech, see page 6.

Carnegie Mellon's NavLab 5 Rides Into Robot Hall of Fame



This year's class of inductees into the Robot Hall of Fame includes Carnegie Mellon's own NavLab 5, a modified 1990 Pontiac minivan that did $98\ \text{percent}$ of the steering on a trip across the U.S.

Byron Spice

Carnegie Mellon's own NavLab scored another first last month: it became the first university robot to ride into the Robot Hall of Fame®.

The modified 1990 Pontiac TranSport minivan was one of a series of 10 increasingly sophisticated autonomous vehicles developed at the Robotics Institute that would

carry the NavLab name. Its crowning achievement was "No Hands Across America," a 3,000-mile road trip in which the vehicle did 98 percent of the steering.

Todd Jochem, who went along on that memorable ride in 1995 as a doctoral student and is now president of Applied Perception Inc., was on hand for the induction class announcement CONTINUED ON PAGE FOUR



PUBLISHER Teresa Thomas

EDITOR Bruce Gerson

MANAGING EDITOR

WRITERS Jonathan Potts Eric Sloss Byron Spice

Ken Walters

DESIGNER Melissa Stoebe Communications Design Group

PHOTOGRAPHY Ken Andrevo Communications Design Group

To contact The Piper staff, call 412-268-2900 or email cribbs@andrew.cmu.edu.

Carnegie Mellon University does not discriminate and Carnegie Mellon University is required not to discriminate in admission, employment, or administration of its programs or activities on the basis of race, color, national origin, sex or handicap in violation of Title VI of the Civil Rights Act of 1964, Title X of the Educational Amendments of 1972 and Section 504 of the Rehabilitation Act of 1973 or other federal, state, or local laws or executive orders.

Rehabilitation Act of 1973 or other federal, state, or local laws or executive orders. In addition, Carnegie Mellon University does not discriminate in admission, employment or administration of its programs on the basis of religion, creed, ancestry, belief, age, veteran status, sexual orientation or gender identity. Carnegie Mellon does not discriminate in volation of federal, state, or local laws or execu-tive orders. However, in the judgment of the Carnegie Mellon Human Relations Commission, the Presidential Executive Order directing the Department of Defense to follow a policy of, "Don't ask, don't tell, don't pursue," excludes openly gay, lesbian and bisexual students from receiving ROTC coholarships or serving in the military. Nevertheless, all ROTC classes at Carnegie Mel-lon University are available to all students. Inquiries concerning application of these statements should be directed to the Provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-6684 or the Vice President for Errollment, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone 412-268-2056.

268-2056. Carnegie Mellon University publishes an annual campus security report describing the university's security, alcohol and drug, and sexual assault policies and containing statistics about the number and type of crimes committed on the campus during the preceding three years. You can obtain a copy by contacting the Carnegie Mellon Police Department at 412-268 2323. The security report is available through the World Wide Web at www.cmu.edu/police/statistics.htm. Obtain general information about Carnegie Mellon University by calling 412-268-2000. Produced for Media Relations by the Communications Design Group, June 2007, 07-448.

For Bingham, It's What's on Top That Matters Most

Eric Sloss

What's the most important part of a building? The interior? The exterior? Neither, says Bob Bingham, professor of art and a fellow in the STUDIO for Creative Inquiry. For Bingham, it's what's on top — the roof — that matters most.

Bingham's ecological art practice evolved from using public mixed-media installations to address the relationship between the natural and built environments. This evolution directly affected his approach as a teacher, and in 1996 he created a new environmental art course as part of the university's Environment Across the Curriculum Initiative. In 2000, as a member of the university's Green Practices Committee, he advised a student project to design and assist in the implementation of the first green roof on campus - Hamerschlag Hall's south roof.

Some art practitioners call Bingham's work eco-art. But if you look at his work on a larger scale, he's really mastered the art of collaboration.

What is eco-art?

I like to talk about eco-art the way Newton and Helen Harrison, eco-artists, implement their artwork. They would create huge architectural maps and plans accompanied with a poetic dialogue designed to begin conversations about ecological change all over the world. These plans are so ambitious they may



BINGHAM AND HIS STUDENTS PLAN TO PLANT VEGETATION ON THE 2007 SOLAR DECATHLON HOUSE, AND BUILD THREE RAIN GARDENS AROUND CAMPUS AND A GREEN ROOF ON THE NEW MECHANICAL BUILDING SERVICING DOHERTY HALL.

never be implemented. They created these plans so people can adopt the ideas or influence government. There is a visual art component with the plans and a performance element, with Newton and Helen talking about the ideas. They are still able to create this work in the museum context. I like to take a similar. yet different, approach.

Eco-art, on one hand, is about making statements and asking questions about how we humans live on the planet, use its resources and pollute its assets. But it is also about finding creative ways of looking at the problems facing our increased degradation of the environment. Eco-art raises our consciousness about environmental issues and makes us look at problems from a different perspective.

How did you get involved in green roofs?

I worked with soil scientist John Buck, who was with a local environment firm when I participated in the Nine Mile Run Greenway Project. For the project, we were trying to plant a green space on the slagheap on the Squirrel Hill side

approach, I executed the largest scale possible and I thought, maybe, the university administration would go with some of the ideas. With my architectural background I've learned to use the power of an architectural plan. I used these plans to make my case on what the roof could look like.

In 2000, Diane Loviglio (BHA'05) Landis Kauffman (A'02) and Aria Thomases (A'02) came to me because they heard I worked with facilities management on a green roof idea for the Purnell Center. They received a SURG grant to research green roofs, and I became their second faculty advisor. The idea to green Hamerschlag Hall's roof evolved with an interdisciplinary team of students, faculty and staff through the Green Practices Committee. They

STARTED STUDYING ARCHITECTURE WORKING AS A ROOFER IN CONSTRUCTION. Now I'M AN ARTIST COMING BACK TO WORK ON ROOFS USING SOME OF THOSE SAME ARCHITECTURE AND CONSTRUCTION SKILLS I LEARNED BEFORE I STARTED MY EDUCATION.

of the Monongahela River across from Homestead.

We had a trailer as our laboratory and community resource center, and we needed to test a plant material that holds solid on steep slopes. So we decided to use it on top of the trailer and grow it for two years. It grew 12-feet high. The time with Buck was an important moment for me. I started to research growing light medium on roofs. It was challenging to think about materials that do not have much weight that are low-maintenance and can grow in these locations. With my architecture background, I looked at combining art and architecture.

How did you start thinking about growing green roofs on campus?

When I watched the construction of the Purnell Center for the Arts, I wondered about the large, boxed theater fly space above the building. If you are close, you cannot see the fly space. But if you back away from the building, it is harsh, ugly. I considered how to soften the square box. I asked facilities management if I could just soften the building with some plant material. I asked for plans and they gave me some resistance. At the time, there was an upcoming faculty exhibition in the building, so I wanted to create a semi-site-specific proposal to grow the building for the exhibition.

For the exhibition I designed the whole Purnell Center as a green roof. I designed the green roof to be overthe-top, so if I did get some response, maybe a portion of the roof could be green. Much like the Harrison's

researched a variety of issues about the design and implementation of green roofs, including how much a living roof project would cost and what aspects of planting would work on top of the roof. I helped them navigate through Carnegie Mellon administration and connect with professionals in the field. Over a five-year process, the planting of Hamerschlag Hall's living roof came to fruition.

I started studying architecture working as a roofer in construction. Now I'm an artist coming back to work on roofs using some of those same architecture and construction skills I learned before I started my education.

What are the benefits of a green roof?

Green roofs reduce the volume of rain runoff and the amount of pollution delivered to the local drainage system. In Pittsburgh, storm events can cause combined sewer overflows that discharge pollution into the rivers and streams.

The plant material and soil medium protects the roof from degradation and reduces temperatures, it decreases the temperature in the summer and helps insulate in the winter, thus lowering energy costs. Green roofs also reduce the heat island affect — an urban problem caused by temperatures rising due to the reflection off rooftops and roads. Green roofs also create habitat for animals, insects and birds. And let's not forget the aesthetic component, for all those people who gain a beautiful, naturalistic view out their windows instead of a bland rooftop.

Cohon Named to Third Term as Carnegie Mellon President

Continued from page one



Cohon addresses the class of 2007 at commencement.

Chairman of the Board David Shapira. "He has taken this university to new heights and has overseen tremendous growth in education, research and development. His astute leadership and his inimitable management style have advanced Carnegie Mellon as a leader not only in the Pittsburgh region, but also around the world. I don't believe there's a better person to lead this great university than Jared Cohon."

Cohon became Carnegie Mellon's eighth president in 1997 and was reappointed for a second five-year term in 2002.

"President Cohon has been an effective and visionary leader during the past five years, leading the university in important new initiatives," the committee stated in its report. "Especially notable are the significant expansion of off-campus educational programs, the development of the most aggressive capital campaign in the history of the institution, increased effort to expand diversity on campus, the expansion of biotechnology and development of the Life Sciences Greenhouse in partnership with the University of Pittsburgh, and the establishment of the Collaborative Innovation Center.

"At this important stage in the history of Carnegie Mellon, in the middle of important new initiatives including a capital campaign that will be defining for the institution's future, President Cohon is the right person to lead the university," the report stated.

The Presidential Review Committee, formed last fall, included six senior faculty and six trustees, and was co-chaired by Emeritus Trustee Charles J. Queenan Jr. and Faculty Senate Chair and Professor of Civil and Environmental Engineering David Dzombak. In addition to Dzombak, faculty members included Paul Fischbeck (social and decision sciences, engineering and public policy), Khee Poh Lam (architecture), Lynne Reder (psychology), David Owen (mathematical sciences) and Stanley Zin (Tepper School). Trustees were Erroll Davis Jr., Linda Dickerson, Tom McConomy, Kears Pollock and Lea Simonds.

The committee interviewed 62 senior administrators, deans, faculty and department heads, trustees, student leaders, staff, and regional, national and international constituents. It also received success as one of the world's leading research universities. Now more than ever, these strengths match up with important, emerging needs in our complex world," Cohon said.

According to the committee, Cohon will be faced with several challenges during his third term. Among them are successful completion of the fundraising campaign, upgrading the information technology infrastructure, expanding efforts to improve diversity, upgrading the financial management system to meet increasing auditing demands, maintaining the quality of new programs outside

"AT THIS IMPORTANT STAGE IN THE HISTORY OF CARNEGIE MELLON ... PRESIDENT COHON IS THE RIGHT PERSON TO LEAD THE UNIVERSITY." - THE PRESIDENTIAL REVIEW COMMITTEE

anonymous input from 32 individuals through an advertised Web site.

"Uniformly positive views of President Cohon's integrity, honesty and commitment to Carnegie Mellon were expressed to the committee," said Dzombak and Queenan. "Further, there was nearly unanimous opinion that President Cohon's leadership over the past five years has been outstanding, and that he is the right person to lead Carnegie Mellon for another term."

Cohon said he was "delighted" to have the opportunity to lead Carnegie Mellon for the next five years.

"Carnegie Mellon fosters collaborative problem-solving in an environment that blends technology and the sciences with the arts, humanities, business and policy. Innovation, problem-solving and collaboration have shaped this institution for 107 years and characterize our

Pittsburgh, and improving the university's undergraduate national rankings.

Carnegie Mellon has already grown significantly during Cohon's two terms, making advancements in many areas, including education, research and regional impact. Under Cohon's tenure, Carnegie Mellon's curriculum has been recognized for its interdisciplinary focus and attention to ethics, environmental studies, global awareness and innovation. And the number and quality of applications from students around the world continue to rise - confirming the university's academic prowess and reaffirming its high national and international rankings. This year the university received a record number of more than 22,000 undergraduate applications for 1,360 spots, nearly double the number received during Cohon's first year in office.

Carnegie Mellon ranked 21st among national research universities in U.S. News & World Report magazine this year. Newsweek rated the university among the "New Ivies" and "The Top 100 Global Universities." The London Times Education Supplement ranked Carnegie Mellon 35th among the world's top 200 universities.

The university has also made great strides globally. When Cohon became president in 1997, the university offered just one academic program in three countries outside the U.S. Today, it offers 12 degree programs in 10 countries. Carnegie Mellon also has student exchange and joint-degree programs in Singapore, Taiwan, India and China.

Diversity on campus continues to grow, in part due to Cohon's advocacy for creating a university that reflects the flattening world around it. He established and heads the Diversity Advisory Council, which oversees the university's efforts to increase diversity on campus, annually publishes a report on those efforts and presents an award to an individual who has helped improve the university's culture and climate.

Cohon has played a vital role in the university's major fundraising campaign. Currently in the "quiet phase," the campaign has raised more than \$370 million since the Board of Trustees approved the effort in November 2003. The success is well ahead of the projected pace for fundraising. The total goal and timeframe for the campaign will not be determined by the board until May 2008.

Additional notable progress in the past decade includes a doubling of sponsored research and increased support for the region's economy. Changes in the university's technology transfer operation, for instance, led to 14 new start-ups in 2006 — an all-time high for Carnegie Mellon and among the highest rates in the nation. The Collaborative Innovation Center has been successful in attracting software companies to Pittsburgh, with Intel, Apple and Google setting up shop and bringing new jobs to the city. In 2006, a national study named Carnegie Mellon a "city savior" as one of America's leading "good neighbor" universities.

"The findings of the Presidential Review Committee strongly support the board's decision to reappoint President Cohon," the Presidential Review Committee co-chairs said. "We thank President Cohon for his leadership and commitment to Carnegie Mellon, and we wish him well in the five years ahead."

The Presidential Review Committee's report is available online at www.andrew. cmu.edu/org/fac-senate/Docs.html.

Four 'Bots To Be Inducted Into Robot Hall of Fame

CONTINUED FROM PAGE ONE







LEGO MINDSTORMS

May 15 at the RoboBusiness Conference and Exposition in Boston's Hynes Convention Center. Three other robots will join NavLab 5: the Raibert Hopper, LEGO Mindstorms and Lt. Cmdr. Data — the android character of TV's "Star Trek: The Next Generation."

"As a researcher, I'm gratified that this year, for the first time, our jury has selected more robots from science than from science fiction," Robotics Institute Director Matt Mason said at a Robot Hall of Fame luncheon sponsored by The Technology Collaborative. "I suspect that this might be a trend for the future, as the brilliant work of today's robot builders and programmers begins to fulfill the promise of the friendly, functional robot created first in science fiction."

The announcement in Boston also

marked the first time since Carnegie Mellon established the Robot Hall of Fame in 2003 that the hall ventured beyond Pittsburgh for one of its events. Coincidentally, two of the inductees boast ties to both Boston and Pittsburgh, cities that each nurture burgeoning robotics industries.

Marc Raibert was a Carnegie Mellon professor when he began work with the one-legged Raibert Hopper at his Leg Laboratory in 1980. Robotics Institute project scientist Ben Brown was part of that visionary effort, which explored the phenomenon of dynamic balance and resulted in a number of agile two-legged running and backflipping robots. Raibert moved the lab to MIT in 1986. Now president of the company he founded, Boston Dynamics, Raibert spoke at the luncheon, showing movies of the early Hoppers as well as his company's innovative four-legged robot, Big Dog.

Though the LEGO Mindstorms robotics kit is a popular toy, researchers at the MIT Media Lab produced classroom materials that helped make it a valuable tool worldwide for teaching mathematics and science. Since last year, when LEGO introduced a new generation of the kit called Mindstorms NXT, the company has been marketing educational materials developed by Carnegie Mellon's Robotics Academy and co-branded by LEGO Education and the Robotics Academy.

Data is the lone sci-fi robot in the class and drew the biggest response from the audience when Don Marinelli, executive producer of the Entertainment Technology Center, announced that the android played by actor Brent Spiner during the 1987–1994 run of "Star Trek: The Next Generation" would be inducted. Through this character, the series' writers explored questions about what it means to be human and the rights of sentient machines.

Marinelli contended that it remains important for the Robot Hall of Fame to recognize the achievements of fictional robots like Data.

"We have found that behind virtually every great roboticist, there is a robot from science fiction that inspired that scientist," he said. "By using the Robot Hall of Fame label, we speak in terms that pop culture can understand something that people in robotics hardly ever do — and we get the attention of the general public to the contributions robots are making to human society."



Ready for Racin'

FREELANCE REPORTER SUSAN OLDER HAD A CHANCE TO HOP BEHIND THE WHEEL OF CARNEGIE MELLON'S FORMULA ONE RACECAR WHILE SHE WAS ON CAMPUS IN MAY FOR THE HIGHER EDUCATION MEDIA FELLOWSHIP SPONSORED BY THE OFFICE OF Media Relations. The car was DESIGNED AND BUILT BY MECHANICAL engineering students in Carnegie Mellon's chapter of the Society OF AUTOMOTIVE ENGINEERS (SAE) under the direction of $\mathsf{A}\mathsf{d}\mathsf{j}\mathsf{u}\mathsf{n}\mathsf{c}\mathsf{t}$ PROFESSOR JOHN WISS. THE STUDENTS WILL PARTICIPATE IN THE ANNUAL SAE COLLEGIATE COMPETITION IN FONTANA, CALIF., THIS MONTH.

Tool Time: Summer's Hot For Campus Construction

Bruce Gerson

"**Caution: Construction Zone!**" That's the summer motto for Campus Design and Facility Development, as more than 25 new construction and renovation projects — at a cost of more than \$17 million — are under way on campus, from Henry Street all the way to Wean Hall and Resnik House.

But let's start the "campus tour" with the two largest ongoing projects that aren't even included on the summer to-do list, the new School of Computer Science Complex and phase II of the Doherty Hall renovation.

While the \$88 million SCS Complex won't be completed until spring of 2009, site preparation will move full-steam ahead this summer. All excavation work will be completed and the concrete foundations will begin to be poured by late August. When students return, concrete pillars for the 150car subterranean garage will be emerging from the ground.

The \$27 million Doherty renovation project, which includes 178,000 square feet of interior revisions as well as a new 16,000square-foot addition on the building's north wing, will also gain valuable ground this summer. The steel frame for the addition will be completed and the building's "skin" of brick, glass and metal will be mounted. The addition will house a new ventilation system, mechanical room, elevators and fire stairwells to support new chemical engineering labs. The project will be completed in August 2008.

Doherty Hall will also get a facelift this summer, so to speak, as the stairs to the front entrance facing the Fence will be redone. The new entry will include a ramp and railing for easy access for those with disabilities.

While the SCS Complex and Doherty Hall projects are clearly



By the time students return to campus in August, the construction site for the SCS Complex will sport concrete pillars for the 150-car subterranean garage.

the largest on campus, the sexiest may be the "Tartans Pavilion," a new 4,100-square-foot eatery on the plaza between Resnik Hall and the Gesling Stadium track and field. The new venue to meet and eat will be largely enclosed by seven glass garage doors facing the athletic field. In nice weather, the doors can be raised and a canopy will extend outward, creating an outdoor sidewalk café, where students, faculty and staff can enjoy the food and weather while watching football, soccer or other athletic events. The pavilion will include a wood-fired brick grill and oven for pizza and hoagies, and seating for about 100.

Tim Michael, assistant vice president for Campus Services, said the goal is to complete the \$1 million project in time for Homecoming this fall.

The Tartans Pavilion project, originally scheduled to begin last February, was pushed to the summer to coincide with the installation of a new synthetic track surface in the stadium.

Another project to keep your eye on this summer is the anticipated move of Entropy. A planning team of students and staff from Campus

Services, Dining Services and the University Center is working with Lami Grubb Associates to move the campus convenience store across the first floor of the University Center to a portion of the Hawkins Dining Room near Si Senor. The bookstore will

then expand into the space vacated by Entropy. Michael said the new-and-

Michael said the new-andimproved store will be substantially larger and will appropriately be called Entropy+. He says the expanded space will allow the mini-grocery to offer an expanded coffee bar, fresh pastries, a fresh fruit and vegetables section, and more frozen foods, chilled drinks, sandwiches and other merchandise. Entropy+ will accept cash, dineXtra, Plaid Ca\$h, checks and credit cards. Michael said construction should begin this summer with an anticipated grand opening on Oct. 1.

Other summer projects include renovations for distance-learning classrooms at the Information Networking Institute, the Heinz School and the Tepper School's Executive Education program; a new research lab for the Microsoft-sponsored Center for Computational Thinking in the Collaborative Innovation Center; and renovations to four science labs in Mellon Institute.

Also on tap is the continuation of work in the fraternity quadrangle, where the Phi Kappa Theta and Kappa Delta Rho houses are up for remodeling this year. Three new study rooms will be built in the Hunt Library basement, and the Engineering and Science Library in Wean Hall will be the beneficiary of two new study rooms.

A 3-D fabrication lab for the schools of architecture and design will be built on the C-level of Margaret Morrison Carnegie Hall. The lab will enable Styrofoam models to be cut directly from computer-aided drawings.

All in all, keep your head up when walking around campus this summer. "**Caution: Construction Zone!**"

South Craig Street Properties Officially "Green"

Bruce Gerson

Green and silver seem to be the colors of choice for Campus Design and Facility Development, as recent renovation projects to 300 and 407 S. Craig Street were awarded Silver Leadership in Energy and Environmental Design (LEED) Certification from the U.S. Green Building Council. The facilities were cited for their energy efficiency, sustainability and use of green design principles.

Both structures include environmentally friendly features such as paint, sealants and adhesives that produce limited emissions of volatile organic compounds; certified, sustainable wood for interior doors; carpeting made from recycled materials; air conditioning systems that do not use reheat coils; carbon dioxide monitors to regulate fresh air; chlorofluorocarbon-free refrigerants for air conditioning and water cooler systems; and bicycle racks for employees who wish to bike to work.

The two-story, 11,000-square-foot structure at 407 S. Craig Street also includes a skylight on the second floor for natural lighting and a 25-kilowatt solar cell array on its roof that helps power the facility. The building houses office space for faculty, staff and students in the School of Computer Science. Renovations to 407 S. Craig began in 2004 and were completed one year later at a cost of about \$2 million.

The four-story, 80,000-square-foot building at 300 S. Craig Street, the former Vision Services Center that Carnegie Mellon purchased in 2005, houses the University Police Department, and office space and labs for the Pittsburgh Supercomputing Center, the School of Computer Science and the Center for Behavioral Decision Research. The 300 S. Craig renovation project began in 2005 and was completed in 2006 at a total cost of about \$9 million.

The buildings on South Craig join four other university structures that have received LEED certification, giving Carnegie Mellon six of the 22 designated green buildings in Allegheny County. The New House and Henderson House residence halls were awarded silver designation in 2003 and 2004, respectively. The Posner Center was certified in 2005, and the Collaborative Innovation Center received a Core & Shell Gold citation in 2006.

Other projects being considered for LEED certification include The Intelligent Workplace, the Carnegie Mellon Café and the permanent installation of the 2005 Solar House near Donner Hall. The Doherty Hall Phase II renovation and the new School of Computer Science Complex are also seeking LEED certification.



DOHERTY HALL WILL GET A FACELIFT THIS SUMMER, AS THE STAIRS AND FRONT ENTRANCE WILL BE REDONE.

Let's Hear It fo

Cosby Tells Graduates To "Be You" in Commencement Address

After strolling into Gesling Stadium walking a Scottish terrier — Carnegie Mellon's new "official" mascot — award-winning comedian Bill Cosby told more than 2,100 graduates to be proud, be prepared and be "you" in his entertaining keynote address at Carnegie Mellon's 110th commencement, Sunday, May 20. He told a tale about how he bombed in his premiere at a famous Chicago nightclub, only to recover in time for the second show to rave reviews. "I don't care what you do, when you are good you bring you out," he said.

And by the way, that wasn't just any Scottish terrier with Cosby. It was Civil and Environmental Engineering Professor Larry Cartwright's prized pooch, Murray.

The following is Cosby's address.

Consolin Regie -Melic

Hard to believe that anyone ever told entertainment icon Bill Cosby that he stunk and was a flop as a comedian, but it's the truth. Cosby kept the commencement audience entertained with the story of his great failure and the lessons graduates could learn from it.

"Ah, nerds. Why anybody would accept themselves as nerds bothers me. If I'm looking at nerds — according to nerds — I think it has to do with something like you don't know how to mingle. You don't know how to get along with other people. Or dance. Or just stand in a room and look human. I don't know why you want to accept yourselves as being that, because you all have continued on where non-nerds stopped.

Now let's do the math. They quit. All the non-nerds did that — they said I'm tired, why do I have to know this? You guys continued on. That's not nerdy. I think it's very, very brave, considering how many friends you lost. [Laughter] But look at how many friends you gained.

And listen to yourselves having fun. [Cheers and shouts] Oh boy ... that's enough of that.

I want to get on with YOUR life. Graduation ... I will have you know from my experience, is the most important occasion in family life. ... There's the wedding, funeral and college graduation. Of the three, the only one that does not have a reputation for a family fight is the graduation. People fight at funerals – knock the coffin over, the corpse is out of the box. Weddings, people are ripping up dresses, bridesmaids don't like their dresses. But nobody fights at graduation.

(That's) not to say that (your families) are not confused, because you really are supposed to go some place other than back home. [Laughter] That alone says volumes for a lot of people. Right? These people are taking you back. Those of you who asked to come to this school because it was away from home, you wanted to see if you could find yourselves, or to see if you could be independent. Now you're graduating, you are going back home. This is really disappointing. [Laughter] You are not going to be a nerd. You are disappointing people. For God's sake, get a job. [More Laughter] Wait, we don't want hostility from the families.

I was 25 years old and I was good. And I knew I was good. I knew I was good because I felt confidence and I was working at a place called the Gate of Horn in Chicago. didn't even bother me. I said, 'Well, let them see me.' That's how good I am. And I went on stage — we worked from 8 p.m. until 4 in the morning. My job description was to break up the monotony of the folk singers. I was good.

I did my 20 minutes of whatever, and the Marienthal Brothers said, 'We'd like to meet you.' There was no backstage. We went to some storage room above the coffee shop. And they said we like you and we're going to give you — and at the time, pardon me, I was performer. By 7 o'clock I had done one of the most masterful jobs of making myself feel that I did not belong in this club. And I couldn't get out of it. I kept telling myself, 'But you are good!' But these other voices kept coming: 'But you are not that good, and people, the audiences, know. These people know. And when they see you, they are going to know that you are not good, you don't belong here.'

There was a knock on the door, and it was one of the fellows that introduces and he said, 'How you doing, Bill? How do you want to be introduced?' I said, 'Ladies and gentlemen, this is one of America's fastestrising new comedians, and then my name.' He said okay and he went down, and I went back to my favorite depression. (Later) he said, 'Come on down, take your place.' I wasn't ready. I didn't feel ready. And I felt this audience knew more than I.

And I stood behind the curtain and the fellow introduces and then you walk out and you stand on the stage. The place holds, oh, ... about 150 people. And then the trio was playing, do, do, do. Ta da, shoop [Cosby does a jazz scat.] 'And now ladies and gentlemen, Mr. Kelly's is proud to present one of the fastest-rising new comedians of the United States of America! Let's have a big hand for Bill Cosby.' The people started to applaud, and I walked up and I looked out at these people, and it got worse. I did what supposedly had been a 35-minute act in 18 minutes, and I said thank you, and I walked off. I don't remember what the audience did. I went up to my dressing room. I was not nauseous, I just felt this is the end and I'm going back to Temple University and I'm going to finish out my senior year and play pro ball

NERD: A PREPARED PERSON WHO DOESN'T REALLY GIVE A DAMN About the dance. - Bill Cosby

It was a folk place, and I was one of the fastest-rising new comedians in the United States of America. And I knew I was good. I looked across the street from the Gate of Horn and there was a place called Mr. Kelly's. Mr. Kelly's is where I wanted to be. It was a nightclub, they sold liquor but they had great comedians playing there — big name tags, the biggest. They had been on TV. That's where I wanted to go, and while playing the Gate of Horn I knew that I should be there.

And finally some five months later, after playing nightclubs, coffee houses, Greenwich Village, two brothers came, the Marienthal Brothers, to see me in this club that held 90 people and they had frat parties and weird things. I'm just a half a year out of the projects; I don't understand this new coffee stuff with the chocolate chips in them and the Italian biscuits that are hard. And one of the owners said to me, 'The Marienthal Brothers from Mr. Kelly's are here to see you.' And it making \$120 a week, this was in the '60s ... the early '60s. There still was no money. New York was very expensive. They offered me \$400 a week and airfare to Chicago. I said, 'I'll take it.' I flew out for two weeks. I was the opening act. I don't remember who the closing act was. It was a female singer. And I had a suit and a tie.

... I went in about 3 o'clock to get the feel of the room. And I walked around looking at this club because I'm here, and I began to look at the pictures of these great comedians, men and women who were on TV. I had not been on TV as of yet. But I'm good. I went up to the room, this was around 4:30, and first show is 8 o'clock. I began to talk from within to myself about these great comedians. And I began to see this club as some kind of mountain that I was approaching. I began to feel a loss of confidence. And I began to talk to myself in such a way that a heaviness began to push and make me feel inferior as a

or the "Nerds!"

and maybe get paralyzed for \$13,000 a year as a quarterback with the New York Giants.

The Marienthal Brothers knocked on the door, and I looked at both of them, and they looked at me and I said, 'Please, understand me. I don't want to be paid. I'm going back to the hotel and I am going to go home. And I will return the round-trip money. I want to thank you for the opportunity.' And one of the brothers said, 'Good.' The other one said, 'Yeah. We both agree — you need to go back. You need to go back and you need to go back to college and you need to finish up your career. And while you are back at the hotel, do us a favor and send Bill Cosby back here for the second show, because you stink. And ask Bill Cosby why he sent you.' And they left.

Well, I would like to tell you that that speech — I mean if this was a movie it would be that I went on stage and I killed them in the second show. (But) it got worse. I didn't know what I was going to do for the second show. And the time was coming, coming, coming, coming. (The fellow that introduces you said) 'Will you please set yourself, sir?'

And I went down and I stood behind the curtain. [Jazz scat] Da, da, da. And the man said, 'Ladies and gentlemen, Bill Cosby.' I said, 'What are you doing? The guy said, 'I beg your pardon?' I said, 'Where is the intro I gave you?' He said, 'Did you see the first show?' And we started a repartee back and forth. I forgot all about that mess I fed myself, and the audience started to laugh and thought it was in fact a part of the show. And I did my 36-minute act in an hour and 10 minutes. The poor woman following me to this day will not speak to me because I destroyed the place. I pranced, I moved, I ad-libbed. When I came off, the guy said, 'Man, that was a great show.' I said, 'Yeah, ... this is the first time I have seen at least 80% of it.' The Marienthal Brothers said, 'Gee whiz, thank you. Where is that boy who was here for the first show?' I said, 'He's gone, man.'

The totality is what I'm saying to you — don't talk yourself into not being you at any time. You don't have an excuse that works when you say, 'But I was nervous.' That's not you. That's not how you got here. Yeah, you can be nervous, it's good for you, tunes you. But people want to see YOU. I don't care what you do, when you are good you bring you out. [Applause] Thank you.

It's not that you stand around and measure yourself according to diplomas and degrees. You are you, and you are not to ... put yourself beneath anybody. 'Oh, I'm from Harvard.' 'Yes, I'm from Carnegie Mellon.' [A horn blares and Cosby responds.] Is that the alma mater?

Be proud. But you can't be proud and you can't carry it out unless you are sure of yourself and prepared. And that's where the nerds stand tall. That's how you got that name, that's what it means. I looked it up. 'Nerd: a prepared person who doesn't really give a damn about the dance.' So in closing, I close.











Despite an early downpour that had family and friends scurrying for cover, Carnegie Mellon's 110TH commencement took place beneath blue skies and sunshine. While steeped in the tradition of honorary degree presentations (Helen Faison) (1) and the bagpipe band (2), the ceremony also offered moments of frivolity, especially from keynote speaker Bill Cosby (3). Catherine Scudera (4) addressed her fellow graduates from the platform while they celebrated on the field in their own unique ways (5–7). Of course, no Carnegie Mellon commencement would be complete without the CivE grads — clad in their hardhats (8).



Survey Shows Most Want Public Art on Campus

Jonathan Potts

A majority of the participants in this spring's Campus Conversation on public art believe that the university's public art policy needs to be modified. But overall, they're happy with the role that public art plays on campus.

Campus Conversations are a series of events at which students, faculty and staff spend time discussing issues of importance to the campus community. As a result of last year's campus debate over the installation of "Walking to the Sky," a Campus Conversation took place April 11 to discuss public art on campus.

"My biggest overall impression was how positive everyone was toward art on campus," said Krista Campbell, associate director of the Center for the Arts in Society and a small-group discussion moderator during the Campus Conversation. "They wanted to know why there isn't more," Campbell said.

Each Campus Conversation takes the form of a Deliberative Poll[®], in which a representative sample of the community studies an issue, discusses it among themselves and with an expert panel, and then registers its opinion. This was the first Campus Conversation with alumni participation, both onsite and through a live online forum.

Eighty-nine people registered for the event, including faculty, staff, students and alumni. Fifty of those participants completed both the preand post-event surveys, and results of the event are based on their post-event responses.

"Some people thought that there would be many who did not want public art on campus, but the discussions



The Campus Conversation on Public Art took the form of a Deliberative Poll, in which a sample of the community studies an issue, discusses it among themselves in small groups like this one, asks questions of an expert panel and then registers its opinion.

be aesthetically pleasing. Asked which groups should have influence over the selection of prominent pieces of public art, 49 percent said that Carnegie Mellon art experts should have a lot of influence, while 41 percent said students and 16 percent said the administration. Most participants said that the university's public art committee should be fully representational of all campus constituencies.

"I think people who participated in the poll came away with the

"My biggest overall impression was how positive everyone was toward art on campus. They wanted to know why there isn't more." — Krista Campbell

were more positive than that. Most want it, but with a plan — a plan that's principled and innovative," said Robert Cavalier, a teaching professor of philosophy and co-director of the Southwestern Pennsylvania Program for Deliberative Democracy, which co-sponsored the event with the Coro Center for Civic Leadership and the University Libraries.

Three-fourths of the respondents said that the current public art policy needs some modifications, and the theme that emerged during the discussions was that the university needs a plan for public art. Most participants said that the university should accept donated works of art and seek donors to endow the campus with art, rather than commission public art with general university funds.

A majority of respondents said it was important that public art improve the visual quality of the campus and understanding that it is a complex issue. It's not based entirely on the aesthetics, and there are oftentimes social, cultural and political components that feed into those positions," said Michael Bridges, associate director of assessment at the Eberly Center for Teaching Excellence and the Office of Technology for Education. Bridges helped design the survey and analyzed the data.

Four people served on the expert panel at the Campus Conversation, all of them members of the university's Public Art Committee: John Carson, head of the School of Art; Student Body Vice President Andrea Hamilton; Ralph Horgan, associate vice provost of Campus Design and Facility Development; and Robbee Kosak, vice president for University Advancement. "I thought it was a very useful

process. It was interesting, because in many ways the whole discussion was generated by the arrival of 'Walking to the Sky.' All of us have had time to reflect on how the installation of public artwork on campus could be better dealt with in the future," Carson said. "I also think that people have come to appreciate 'Walking to the Sky' better over time and through discussion. "I think we've arrived at the point where we have a better process in place with the Public Art Committee, the public art policy and the recommendations of the Deliberative Poll," he added.

Ask Andrew

After last month's announcement that the Board of Trustees reappointed President Cohon to a third five-year term, I started to wonder about other Carnegie Mellon presidents. How long do they usually stick around? And who served the longest? S.C., University Advancement

President Cohon was named the eighth president of Carnegie Mellon back in 1997, and most of his predecessors stayed at the helm of the university for quite a while. In fact, five of them served 10 years or more. This tradition of longevity dates back to the university's first president, Arthur A. Hammerschlag, who served 19 years (1903–1922) and turned the vocational Carnegie Technical Schools into the Carnegie Institute of Technology, which offered four- and five-year bachelor's and master's degree programs.

The university's third president, Robert Doherty, was president for 14 years (1936–1950) and began the "Carnegie Plan," a new approach to undergraduate education that focused on teaching students the fundamental knowledge necessary to solve practical problems. It also required them to take classes outside their major. And voila! The university's interdisciplinary, practical approach to problem-solving was born.

During his 18-year term (1972–1990), Richard Cyert led the university from regional excellence to national prominence by strategically focusing the university's efforts on areas where it had the talent and expertise to make the most impact. The School of Computer Science and Robotics Institute were created on his watch, and the Andrew computing system was completed, making Carnegie Mellon the most wired campus at the time.

These examples barely scratch the surface of what the university's presidents have done to shape Carnegie Mellon as we know it. If you want to learn more, check out the Web site for the Office of the President, which offers brief bios on all the university's presidents: www.cmu.edu/leadership/president/history/index.html. The shelves of Hunt Library also contain some great volumes on the history of the university, in case you're looking for summer reading.

Faculty Awards and Accolades

With one school year completed and a few months hiatus before a new one begins, The Piper thought this would be an ideal time to celebrate the accomplishments of the university's faculty. The following is a list of faculty awards and accolades from this past school year, with a main focus on those occurring since January. Quite impressive, don't you think?

College of Engineering

- Associate Professor of Civil and Environmental Engineering Burcu Akinci has been selected to receive the 2007 Walter L. Huber Civil Engineering Research Prize from the American Society of Civil Engineers.
- Nadine Aubry, head of the Mechanical Engineering Department, was named chair of the U.S. National Committee on Theoretical and Applied Mechanics.
- Chemical Engineering Professor Larry Biegler was awarded the 2007 CACHE Award for Excellence in Computing in Chemical Engineering Education.
- Civil and Environmental Engineering Professor David
 A. Dzombak was named the Walter J. Blenko Sr. Professor of Environmental Engineering.
- Civil and Environmental Engineering Professor James H. Garrett Jr. was named Professor of the Year by the Pittsburgh chapter of the American Society of Civil Engineers.
- C. Fred Higgs III, assistant professor of mechanical engineering, and Mohammad
 F. Islam, assistant professor of chemical engineering and materials science and engineering, received five-year Early Faculty Career Development Awards from the National Science Foundation.
- Pradeep K. Khosla, dean of the College of Engineering and the Philip and Marsha Dowd Professor of Electrical and Computer Engineering, received the prestigious Cyber Education Champion Award from the Business Software Alliance.
- **M. Granger Morgan**, head of the Department of Engineering and Public Policy, was elected to the National Academy of Sciences.
- Irving Oppenheim, professor of civil and environmental engineering, received CIT's Benjamin Richard Teare Jr. Award.

 Three CIT faculty members won 2007 Sloan Research Fellowships for early-career scientists of outstanding promise: Priya Narasimhan, associate professor of electrical and computer engineering; Dawn Song, assistant professor of electrical and computer engineering; and Mohammad F. Islam, assistant professor of chemical engineering and materials science and engineering.

College of Fine Arts

- Leonardo Balada, University Professor of Composition in the School of Music, received the American Academy of Arts and Letters' Award in Music.
 Stephen Lee, professor of
 - architecture and LEEDTM accredited professional research faculty for the Center for Building Performance and Diagnostics, was awarded the "Shades of Green Leadership Award" by the Green Building Alliance.
- Cindy Limauro, professor of lighting design in the School of Drama, received the 2007 Henry van de Velde Award for Architectural Education from the Higher Institute of Architectural Sciences at University College, Antwerp, Belgium.
- Vivian Loftness, a professor in the School of Architecture and Center for Building Performance and Diagnostics, was appointed to the Assurance Group for the World Business Council for Sustainable Development.
- Anne Mundell, associate professor of drama, received CFA's Henry Hornbostel Award.
- Paul Mellon Professor of Music and Director of Choral Studies
 Robert Page was named a University Professor — the highest honor Carnegie Mellon faculty can achieve.
- Luis Rico-Gutierrez, associate dean of the College of Fine Arts, was named a trustee of the Pittsburgh History and Landmarks Foundation.
- Hilary Robinson, the Stanley and Marcia Gumberg Dean of the College of Fine Arts, became a trustee of the Andy Warhol Museum, Quantum Theater and The Mattress Factory.
- Lewis Strouse, associate teaching professor of music education, has received a Citation of Excellence for his work in higher education.

College of Humanities and Social Sciences

- John Anderson, the Richard King Mellon Professor of Psychology and Computer Science, has been elected to the American Philosophical Society.
- Jim Daniels, the Thomas Stockham Baker Professor of English, won the Blue Lynx Prize for poetry from Eastern Washington University for his collection, "Revolt of the Crash-Test Dummies."
- Statistics Professor William Eddy has been named chair-elect of the Section on Statistics for the American Association for the Advancement of Science.
- Paul Eiss, associate professor of anthropology and history, has been awarded a New Directions Fellowship from the Andrew W. Mellon Foundation.
- **Brooke Feeney,** associate professor of psychology, won first prize at the inaugural Mind Gym Academic Awards in London.
- Statistics Professor Stephen Fienberg and Philosophy Professor Wilfried Sieg have been named fellows of the American Academy of Arts & Sciences. Fienberg is the Maurice Falk University Professor of Statistics and Social Science.
- Professor of English Linda Flower
 received the first Steve Witte Award
 from The American Educational
 Research Association's Special
 Interest Group on Writing and
 Literacies.
- Larry Heimann, associate teaching professor of information systems, earned the H&SS Elliott Dunlap Smith Award.
- Psychology Professor **David Klahr** was elected to the National Academy of Education.
- Chris Neuwirth, professor of English and human-computer interaction, received the 2007 Computer and Composition Distinguished Book Award for "Writing and Digital Media," which she co-edited.
- Susan G. Polansky, teaching professor of Hispanic studies, has been named head of the university's Department of Modern Languages.
- Scott Sandage, associate professor of history, received a grant from the National Endowment for the Humanities to research his upcoming book, "Half-Breed Creek: A Tall Tale of Race on the Frontier, 1804–1941."

- John Soluri, an associate professor of history, and Therese Tardio, a lecturer in Spanish, received the Jefferson Award for Public Service from Carnegie Mellon. Soluri also won the George Perkins Marsh Prize for Best Book in Environmental History for "Banana Cultures."
- History Professor **Joe Trotter** was reappointed head of the History Department. He also received a Distinguished Alumni Achievement Award from his alma mater, Carthage College in Wisconsin.
- G. Richard Tucker, the Paul Mellon University Professor of Applied Linguistics and head of the Modern Languages Department, received the Doherty Award for Sustained Contributions to Excellence in Education.
- Valerie Ventura, an associate research professor in the Department of Statistics, received the 2006 Canadian Journal of Statistics Award for her paper "Bootstrap Diagnostics and Remedies."

The Heinz School

- Edward Barr, associate teaching professor of professional writing, earned the school's Excellence Award for the MISM/MSIT programs.
- Michael Dekay, research professor of engineering and public policy, and Janusz Szczypula, teaching professor, received the Heinz School's Martcia Wade Award.
- Denise M. Rousseau, the

 H.J.Heinz II Professor of
 Organizational Behavior and Public
 Policy, has been awarded the 2006
 Douglas McGregor Memorial
 Award by the NTL Institute and
 The Journal of Applied Behavioral
 Science. She will also receive the
 Distinguished Scholar Award from
 the Managerial and Organizational
 Cognition Division of the Academy
 of Management in August.

Mellon College of Science

- Chemistry Professor Bruce Armitage was elected co-vice chair for the Gordon Research Conference on Photochemistry.
- The Outstanding Paper Award at the E-Learn 2006 Conference was given to **William Brown**, professor of biological sciences, and **James Burnette III**, lecturer and coordinator of undergraduate research placement.

 $C \, {\tt ontinued}$ on page ten

Faculty Awards

CONTINUED FROM PAGE NINE

- Terry Collins, the Thomas Lord Professor of Chemistry, received the 2007 Excellence in Catalysis Award from the Catalysis Society of Metropolitan New York. He was also elected a fellow of the International Union of Pure and Applied Chemistry.
- The Genetics Society of America awarded its first Excellence in Education Award to **Elizabeth Jones**, head of biological sciences and the Frederick A. Schwertz Distinguished University Professor of Life Sciences.
- John Mackey, lecturer and assistant department head in mathematical sciences, received the MCS Julius Ashkin Teaching Award.
- Physics Professor **Sara Majetich** is one of four 2007 Distinguished Lecturers of the IEEE Magnetics Society.
- Krzysztof Matyjaszewski, the J.C. Warner University Professor of Chemistry, received the first Herman F. Mark Senior Scholar Award from the American Chemical Society. He also received an honorary degree from the Russian Academy of Sciences.
- Associate Professor of Biological Sciences Jonathan Minden earned the MCS Award for Innovation in Education.
- Chemistry Professor Eckard Münck received the 2007 Alfred Bader Award from the American Chemical Society.
- **Robert (Bob) Murphy,** professor of biological sciences and biomedical engineering, was elected a fellow of

the American Institute of Medical and Biological Engineering.

- **Roy Nicolaides** received the first Alexander M. Knaster Professorship as head of mathematical sciences.
- Kavita Ramanan, associate professor of mathematical sciences, received the 2006 Erlang Prize for Young Applied Probabilists.
- Gordon Rule, professor of biological sciences, earned the Ryan Award for Meritorious Teaching.
- Assistant professors **Russell Schwartz** and **Nathan Urban** received Eberly Family Career Development Professorships in Biological Sciences.
- Steve Shreve was appointed the Orion Hoch Chair of Mathematical Sciences.
- Chemistry Professor Stuart Staley won the MCS Richard Moore Education Award.
- Physics Professor **Michael Widom** received the Alloy Phase Diagram International Commission Best Paper Award.

School of Computer Science

- Jonathan Aldrich, assistant professor in the Institute for Software Research International, earned the Association Internationale pour les Technologies Objets 2007 Dahl-Nygaard Junior Prize.
- University Professor **Manuel Blum** earned the SCS Herbert A. Simon Award.
- School of Computer Science Dean **Randal E. Bryant** received the 2007 Emanuel R. Piore Award from the Institute for Electrical and Electronics Engineers.

- Jennifer Mankoff, assistant professor in the Human-Computer Interaction Institute, received a 2007 Sloan Research Fellowship.
- Srinivasa G. Narasimhan, assistant professor of robotics, and Carlos Guestrin, assistant professor of machine learning and computer science, received five-year Early Faculty Career Development Awards from the National Science Foundation.
- Computer Science Professor Steven Rudich was a co-winner of the Association for Computing Machinery's 2007 Gödel Prize.
- Assistant Professor of Computer Science Luis von Ahn received Microsoft Research's New Faculty Fellowship and a MacArthur Foundation "Genius Grant."
- William L. "Red" Whittaker was named a University Professor the highest honor Carnegie Mellon faculty can achieve.

Tepper School of Business

- University Professor of Industrial Administration and Applied Mathematics **Egon Balas** was inducted into the Operational Research Hall of Fame by the International Federation of Operational Research Societies.
- Professor of Financial Economics Robert Dammon received the MBA George Leland Bach Teaching Award.
- Chris Forman, assistant professor of information systems, was one of five outstanding young scholars to receive a Sloan Industry Studies Fellowship from the Alfred P. Sloan Foundation.
- Economics Professor Marvin
 Goodfriend received the school's BS
 Economics Program Teaching Award.

- Burton Hollifield, associate professor of financial economics, received the Tepper School's BS Business Administration Teaching Award.
- Claudia A. Kirkpatrick, associate teaching professor of business management communication, received a Special Award for Sustained Teaching Excellence in the Classroom.
- Don Moore, associate professor of organizational behavior and theory, has been selected for the 2007 Cummings Scholar Award from the Organizational Behavior Division of the Academy of Management. He also received the school's Weil Prize.
- Anthony Stanton, associate teaching professor and director of Graphic Media Management, was elected to a two-year term as president of the Technical Association of the Graphic Arts.
- Sridhar R. Tayur, the Ford Distinguished Research Chair Professor and professor of operations management and manufacturing, received the Information Technology Award, one of the Carnegie Science Center's 2007 Awards for Excellence.

University Libraries

• Associate Dean of University Libraries Erika C. Linke was elected to a three-year term as vice-president/ president-elect of the Association of College and Research Libraries.

West Coast Campus

• Associate Teaching Professor **Ray Bareiss** received the Dean's Award for Excellent Work.

News Briefs

Second Collaborative Innovation Center Under Development

The Collaborative Innovation Center (CIC) has been so successful in its mission to attract software companies like Apple, Intel and Google to Pittsburgh that a second CIC with a similar mission is in the works. Preliminary plans call for the "CIC 2" to sit on a parcel of land across the hollow and railroad tracks from "CIC 1." This new 200,000- to 300,000-square-foot building also aims to attract private businesses that want to be near the innovative research and academic talent at Carnegie Mellon and in Oakland.

Carnegie Mellon and The Carnegie, which owns the land, are partners on the project. In addition to CIC 2, the partners also envision a pedestrian bridge that will travel across the hollow to connect both CIC structures. They hope the bridge will help link campus to the museums, and to the university's other properties in east Oakland. CIC 2 will also house Carnegie Mellon's Nanotechnology Commercialization Center and facilities for biomedical engineering. In August 2006, Pennsylvania Governor Ed Rendell awarded a \$4 million state grant to support the Nano Center in CIC 2. Once a developer is selected and an agreement is reached in June, the goal is to complete the building in 18 months.

Dunn Reappointed Dean of the Tepper School

Kenneth Dunn has been appointed to a second five-year term as dean of the Tepper School of Business. "Under Dean Dunn, the Tepper School has seen a marked increase in the quality of its students, in

the importance placed on the impact of faculty research and in external relations and fundraising," said Provost and Senior Vice President Mark Kamlet in a memo to the Tepper School community. "The generous gift of David and Marlene Tepper and renaming of the school is a seminal event for the school and the university. It bespeaks the confidence of the donors not only in the school and the university, but also in Dean Dunn and his vision for the Tepper School," Kamlet said.

Dunn's reappointment was unanimously recommended by a faculty committee consisting of Egon Balas (chair), Dennis Epple, Richard Green, Carolyn Levine, Don Moore and Alan Scheller-Wolf. "The evaluation committee noted Ken's distinctive effectiveness with both external and internal constituents; the compelling sincerity of his commitment to the school and the university; his contacts with alumni — dating even from his time as a professor here; his credibility with business people through his experience and success as a business person; his credibility with faculty from his own academic success; and his clear articulation of the importance of top quality academic research," Kamlet said.

Dunn was appointed the eighth dean of the Tepper School in July 2002, following a 16-year career that included serving as managing director of Morgan Stanley Investment Management and co-director of the U.S. Core Fixed Income and Mortgage teams. Before his private-sector work, Dunn taught at Carnegie Mellon, joining the faculty in 1979.

University Purchases Forbes Avenue Properties

The university has purchased the Holiday Bar, which closed this past April, and the residence next door for future development. But just what that development may be for the properties at 4620 and 4622 Forbes Avenue is still undetermined, according to Ralph Horgan, associate vice provost for Campus Design and Facility Development. Horgan said the bar and adjacent residence will be demolished at some point later this year. Horgan added that the purchases are intended to give Carnegie Mellon some flexibility with regard to future development opportunities in the neighborhood. The owners of the Holiday Bar were already in the process of selling the property when university representatives approached them. The university expected to close on the property by May 31.

Page and Whittaker Receive Carnegie Mellon's Highest Honor

Robert Page and William L. "Red" Whittaker have been named University Professors, the highest distinction faculty can achieve at Carnegie Mellon. Page is the Paul Mellon Professor of Music and director of choral studies in the College of Fine Arts, and Whittaker is the Fredkin Research Professor of Robotics in the Robotics Institute. "The University Professors are truly the 'best of the best' among our faculty," said Provost and Senior Vice President Mark Kamlet. "Robert Page and Red Whittaker are exceptionally deserving of this honor, each having made exceptional contributions to their fields as well as outstanding contributions and leadership to the university."



Meeting of the Minds Celebrates Undergraduate Research



Before the mass exodus of students that followed final exams last month, there was a day when the University Center hummed with student research and projects. The university's annual Meeting of the Minds undergraduate research symposium was

HELD MAY 9, AND FEATURED PROJECTS RANGING FROM STUDENT-WRITTEN POETRY COLLECTIONS TO OBSTACLE-DETECTING VISION SOFTWARE FOR SELF-DRIVING VEHICLES. SOME STUDENTS, INCLUDING SENIOR ANNA VOGELZANG (TOP), PERFORMED THEIR CREATIVE WORKS, WHILE OTHERS LIKE COMPUTER SCIENCE JUNIOR BEN MAURER (BOTTOM) DEMONSTRATED MORE TECHNICAL RESEARCH. IN ALL, MORE THAN 400 STUDENTS PRESENTED THEIR RESEARCH AT THE SYMPOSIUM.

"Reverse Alarm Clock" Keeps Children Sleeping

John Zimmerman, associate professor of design and human-computer interaction. has developed an unconventional alarm clock every new parent needs - a clock to keep children sleeping. Called the Reverse Alarm Clock, the product aims to keep young children from interrupting their parents' sleep. The Reverse Alarm Clock consists of a moonset and sunrise calculator, a small circular wall-mounted unit that illustrates time with images of the sun. moon and stars. When the moon is lit, the children should stay in bed; when the moon is off, the children can get out of bed if they wish but not disturb their parents. Finally, when the sun is on - and the wakeup music they selected from the clock's Treasure Chest Music Selector plays - they must get up.

Good Decision-Makers May Be Made, Not Born

A new study from decision scientists at Carnegie Mellon and the RAND Corp. shows that people who do well on a series of decision-making tasks involving hypothetical situations tend to have more positive decision outcomes in their lives. The results suggest that it may be possible to improve the quality of people's lives by teaching them better decision-making skills. The study shows that, although decision-making competence is correlated with verbal and nonverbal intelligence, it is still a separate skill. The study was published last month in the Journal of Personality and Social Psychology. Its co-authors include Wändi Bruine de Bruin, a researcher in the Department of Social and Decision Sciences; Andrew Parker, an associate behavioral scientist with the RAND Corp.; and Baruch Fischhoff, the Howard Heinz University Professor of Social and Decision Sciences and Engineering and Public Policy.

Peter Lee To Lead Computer Science Department

Peter Lee, professor and vice provost for research at Carnegie Mellon, has been named the new head of the Computer Science Department in the School of Computer Science. He succeeds Jeannette Wing, who on July 1 will become assistant director of Computer Science and Information Science and Engineering at the National Science Foundation. Lee's appointment received the strong endorsement of a faculty committee charged with evaluating the department's needs and reviewing potential candidates to replace Wing. The committee was led by Todd Mowry and included Dave Andersen, Lenore Blum, Tom Mitchell, Tom Murphy and Frank Pfenning.

No Slowdown in Sight

Lectures and classes may ease-up for the summer, but that doesn't mean Carnegie Mellon comes to a standstill. In fact, the university will be hopping with everything from elementary school enrichment programs to a special state program for rising high school seniors gifted in the sciences. Check out the list below for more about what's going on this summer.

June-August: Carnegie Mellon Athletic Camps

FITT Camp For boys and girls in grades 3–8 June 18–22 and June 25–28 Information: 412-551-8763

Diving Camp Weekend Camp: June 30–July 1 Day Camp: July 16–20 9:15 a.m.–3:30 p.m. for ages 10–17 Mini-Camp: 9:15 a.m.–1:30 p.m. for ages 6–9 Information: 412-268-2213 **Basketball Camp** For boys and girls ages 6–14 July 9–13, 9 a.m.–3:30 p.m. Information: 412-268-2218

Soccer Camp For boys and girls ages 6–14 July 30–Aug. 3 Day Campers: 9:15 a.m.–4 p.m. for ages 8–14 Mini Campers: 9:15 a.m.–1 p.m. for ages 6–7 Information: 412-268-2213

June 18–29, July 9–20: Carnegie Mellon Institute for Talented Elementary and Secondary Students (C-MITES)

About 500 talented students in grades three through eight converge on Carnegie Mellon (and other locations) each summer for classes ranging from computer programming to amusement park physics. C-MITES students must submit test scores, teacher recommendations and information about academic achievements. Overall, about 80 percent of the students are accepted into each class. For more on CMITES, see www.cmu.edu/cmites.

June 24–28: Pennsylvania Governor's School for the Sciences (PGSS)

Administered through Carnegie Mellon since its inception in 1982, PGSS cultivates junior scientists, giving talented rising high school seniors the chance to experience educational and research-oriented activities not normally available to students through their Pennsylvania high schools. To date, 2,179 talented Pennsylvania high school students have completed the PGSS program. This year, Carnegie Mellon will host 100 students chosen from a pool of 530 applicants.

June 25-Aug. 10: Andrew's Leap

Andrew's Leap is a summer enrichment program for mathematically gifted students run by the School of Computer Science. Students get into Andrew's Leap by taking the "Interesting Test," and teachers are more interested in how they arrive at answers than what those answers are. Accepted leapers are exposed to the frontiers of computer science — the best faculty, the most interesting research. They "leap" ahead approximately 10 years. For more, see www.cs.cmu.edu/~leap.

June 30–Aug. 10: The Summer Academy for Mathematics and Science (SAMS)

High school students entering their junior or senior year who are considering careers in engineering, science and other mathematics disciplines are eligible for this program. The rigorous, residential summer experience focuses on creating interest in technical disciplines and building academic and personal skills to better prepare students for the college application process. For more, see www.cmu.edu/enrollment/summerprogramsfordiversity/sams.html.

June 30-Aug. 10: Advanced Placement/Early Action (AP/EA)

AP/EA is for high school seniors interested in taking Carnegie Mellon classes for college credit. The classes are actual university courses, condensed and accelerated to fit into a six-week program. Acceptance into the program is based on a review of the student's qualifications and space availability.

June 30-Aug. 10: Pre-College, Fine Arts

High school seniors may be selected to participate in this program, which allows them to study in the school of their choice within the College of Fine Arts. Students can explore a discipline to determine their level of interest for future study at the college level. For more, see www.cmu.edu/enrollment/pre-college/.

June 30-Aug. 10: National High School Game Academy

High school seniors may be invited to the National High School Game Academy, an intensive study of video game design and development. The program provides students with hands-on experience and exposure to the breadth of knowledge and disciplines needed to be part of this new and exciting field. For more, visit www.cmu.edu/enrollment/pre-college/game.html.

Carnegie Mellon Discovers Critical Security Flaw in Microsoft Service

Ken Walters

Carnegie Mellon's Information Security Office (ISO) may be one of the newest departments on campus, but its importance to the university is growing daily.

In early April, the ISO was the first organization to detect attacks exploiting a critical security flaw in Microsoft's Domain Name System (DNS) server service. The office quickly notified Microsoft, helping to avert potentially serious problems with both older and unreleased versions of Microsoft operating systems. The flaw could have been exploited by remote attackers to take complete control of an affected system without warning.

"We're excited about discovering this attack for two reasons," said Joel Smith, vice provost for computing services at Carnegie Mellon. "First, it's unusual to be the first to detect a new attack. Doing so contributes to the security of the entire Internet community. And second, it helps to verify that our security-monitoring procedures are working well to detect suspicious activity."

It's all part of the job at the ISO, which was created nearly two years ago in response to both the rise in computer security incidents on campus and a surge in regulatory compliance designed to ensure that sensitive information, such as personnel and financial data, remains secure. "We are responsible for monitoring and ensuring the health and safety of the computing and network infrastructure," said ISO Director Mary Ann Blair.

In the Microsoft case, the ISO discovered a remote intruder gaining access to the DOS (disk operating system) prompt of a machine, giving the intruder full access to the system, including sensitive information and possibly passwords.

"The tip-off that there was a problem was when we began to see DOS prompts appearing on high-numbered ports," Blair said. "From there, we analyzed additional network and affected host data. Finding nothing in the existing literature that matched the attack signature and vulnerability profile, we alerted the appropriate computer security incident response teams."

The teams, which included Microsoft, the Software Engineering Institute's CERT program and the SANS Internet Storm Center, worked with the ISO to collect and analyze diagnostic information. Microsoft released a patch to address the vulnerability in May.

"Our goal is to reduce the risk of compromise to confidentiality; integrity; availability of our electronic resources with layered technical defenses; campus-wide security training and awareness; policy and guideline development; proactive security assessment; and timely incident response," Blair noted. "That said, security is a collaborative effort," she added. "Everyone plays a part. We are especially appreciative of our peers across campus and within Computing Services who are responding to the need to improve our security posture. But it's a very reactive environment. There is so much source code out there, and it's very difficult for a vendor to fully test its offerings. As a result, we are always going to have systems and applications with vulnerabilities, and attackers looking for those vulnerabilities."

Blair said her thoughts have shifted in the two years the ISO has been in operation.

"I used to think that 80 percent of our efforts should involve increasing awareness and training," she said. "Now that's shifted to thinking that 80 percent of our efforts should be on automating protection to the extent possible. Because 25 percent of the undergraduate student population at Carnegie Mellon turns over each year, it's a better return on investment."

Blair noted that awareness still plays an important role in the ISO, though. Last fall, the office held a daylong Cybersecurity Summit, which included a variety of speakers and break-out sessions to advise the campus community on how to better protect their computers. A variety of online resources are also available on ISO's Web site at www.cmu.edu/iso. Ensuring a safe computing environment isn't the sole domain of the ISO — all members of the Carnegie Mellon community can help. Blair offers these tips for smart computing:

- Always use strong passwords and keep them secret.
- Keep your operation system, productivity software and antivirus protection up to date with patches.
- Back-up your computer in case information is lost and needs to be retrieved.
- Don't store sensitive information on your own computer if you don't absolutely need to. "It's safer to leave that information in the primary storage location or place it in a managed storage location that has protections in place," Blair said. "If you must store it on your own computer, delete it as soon as you can."
- Don't click on email or instant message links or open attachments if you don't know the source of the email or are suspicious of its contents. "A good portion of spam and virusinfected emails are filtered, but some do get through because spammers are updating their techniques all the time, and the filters need time to catch up," she said.

INTERNATIONAL DISPATCHES

First Australia Class Graduates

While it's too early to predict whether they'll soon be running world governments, recent graduates from Carnegie Mellon's Heinz School programs in Australia aspire to public service.

A ceremony to celebrate the inaugural class of graduates from Carnegie Mellon University in Adelaide, Australia, was held May 25 at the South Australian Museum. South Australia Premier Mike Rann presented the degrees.

Among the first to graduate was Christina Chang, 25, of New York, who had been selected to take part in the prestigious U.S. Presidential Management Fellowship program that attracts new leaders to federal service.

"It's too early to say if I'll be working at the White House, but it is certainly a possibility," said Chang, who plans to return to the U.S.

Chang said 10 years from now she hopes to play a significant role in promoting "environmental sustainability at a large scale." Chang liked the practical problem-solving skills she gained through a Carnegie Mellon education and said that the program location in Australia, where the state is doing a lot of work in global warming, made for a unique combination that benefited her studies.

Tim Zak, executive director of Heinz School Australia, praised Chang's commitment to environmental sustainability and tackling climate change. "I hope that she can continue to combine this passion with her policy work. She will certainly be an asset and ambassador to this important cause," he said.

Others graduating included Rebecca Murrie, the first South Australian graduate and mother of two who put her job on hold to earn her degree; Shanaka Herath, who plans to return to Sri Lanka; and Sreng Mao, who returns to Cambodia to continue his career in international education services and development project management.

Meanwhile, Carnegie Mellon is one of four universities that will benefit from a new agreement between South Australia and the government of Kazakhstan. Three students from that country are expected to enroll in the Heinz program with support from the Bolashak Award, the government of Kazakhstan's international scholarship program.

New Entrepreneurship Certificate Offered in Qatar

Qatar Science & Technology Park (QSTP) and Carnegie Mellon University in Qatar have created an executive training course for entrepreneurs to boost opportunities for creating technology start-ups in Doha, Qatar.

The Executive Entrepreneurship Certificate Program aims to transform Qatar's deep investment in research and education into business success stories. The nine-month, part-time program will teach aspiring managers and executives how to build technology-based businesses by acting entrepreneurially, innovating within their existing companies or starting a new enterprise. Enrollment is now open, and the inaugural class will begin in September.

The entrepreneurship program is run by Carnegie Mellon's Tepper School of Business and its Donald H. Jones Center for Entrepreneurship. The center, recognized as one of the best in the world, has taught thousands of people to create new businesses, including the founder of iGate Corporation, a global IT company with nearly \$400 million in market capitalization. This is the first time the program is being offered in the Middle East.

Two Win Freeman-ASIA Awards for Study in China

Carnegie Mellon students David Andrews and Samantha EunYoung Cho have received Freeman Awards for Study in Asia (Freeman-ASIA) this summer. The Freeman-ASIA summer programs include awards for up to \$3,000 to support American undergraduates who plan to study in East or Southeast Asia. Both students received the full amount of the award.

Andrews and Cho will participate in a summer program at the Shanghai International Studies University in Shanghai, China, where they will study the Chinese language to improve their reading, writing, listening and speaking skills.

"The Freeman-ASIA Awards have opened the door for Carnegie Mellon students to study in Asia," said Eva Mergner, senior coordinator of study abroad and exchange programs. "Students benefit from study abroad personally, academically and professionally. Understanding the unique cultures of Asia has proved invaluable to Carnegie Mellon students in preparing them for an inherently global work-place."

Andrews is a rising sophomore majoring in electrical and computer engineering, and Cho is a rising junior majoring in business administration with a dual concentration in entrepreneurship and marketing.

The eight-week program from late May to mid-July is organized annually by Carnegie Mellon's Modern Languages Department and includes 29 students this year.