



Carnegie Mellon

- 5 CLASSES FIND SUCCESS WITH BOOK-LENGTH COMICS
- 6 A CALMER FORBES ALSO SOUGHT FOR SAFETY
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- 11 STUDENTS TURN SALVAGED BANNERS INTO ARTWORK

Master Plan Focuses on Prime Real Estate

Need To Maximize Space is Critical

■ Bruce Gerson

Take a sneak peek into Carnegie Mellon's crystal ball.

You'll see in the not-too-distant future a new nanotechnology center nestled in among Wean, Hamerschlag and Roberts halls, new student housing at the corner of Forbes Avenue and Margaret Morrison Street and maybe even a Tepper School of Business facility on the Morewood parking lot site.

You also may see a kinder and more pedestrian-friendly Forbes Avenue with one lane of traffic and bicycle-only lanes in each direction, wider sidewalks with additional

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Happy 175th Birthday, Andy!



PHOTO BY KEN ANDREYO

ALONG WITH MEMBERS OF THE DELTA GAMMA SORORITY, MORE THAN 700 FACULTY, STAFF, STUDENTS AND ALUMNI CELEBRATED THE 175TH BIRTHDAY OF ANDREW CARNEGIE IN LATE NOVEMBER AT A UNIVERSITY CENTER BIRTHDAY PARTY SPONSORED BY ANNUAL GIVING AND ALUMNI RELATIONS.

Anniversary Gift Paints Hunt Library

New Lighting Portrays Library as Campus Beacon

■ Cindy Carroll

Carnegie Mellon hosted its own version of Light Up Night with a sparkling event to celebrate Hunt Library's 50th anniversary.

Hosted by President Jared L. Cohon and his wife, Maureen, the Nov. 20 event unveiled the latest gift to the university from the Hunt Foundation: lighting for the façade of Hunt Library on three sides.

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CMU, Shiv Nadar Partnership Opens Doors in India

■ Teresa Thomas

A new partnership between Carnegie Mellon and the Shiv Nadar Foundation in India may help make the dreams of talented engineers come true.

A memorandum of understanding (MOU) announced in November by the two organizations detailed initial plans to make world-class undergraduate programs in mechanical engineering and electrical and computer engineering more available to Indian students.

The first undergraduates will begin their studies in June 2011. Students will study in India at Sri Sivasubramaniya Nadar (SSN) College of Engineering, following a curriculum designed by Carnegie Mellon and taught by SSN faculty trained at Carnegie Mellon. They also will study in Pittsburgh. Admission and academic processes will have the same rigorous

standards that are the university's hallmarks. Once completed with their studies, students will receive Carnegie Mellon degrees.

During the signing ceremony for the MOU, which took place simultaneously in India and Pittsburgh by videoconference, Carnegie Mellon President Jared L. Cohon saluted the accomplishments of India's engineers.

"This new alliance provides

Carnegie Mellon University and the Shiv Nadar Foundation a chance to offer India's students a distinctive edge and international recognition. We believe that this landmark partnership will establish a new way of delivering engineering education to Indian students," Cohon said.

"This new strategy was prompted by a deep awareness that a global world requires highly skilled engineers capable of working

CONTINUED ON PAGE TEN

Building Better Brains: A Q&A with Michael Tarr and Nathan Urban

Panel To Focus on Interdisciplinary Brain Research at CMU Jan. 20

■ Jocelyn Duffy and Shilo Raube

Michael J. Tarr, co-director of the Center for the Neural Basis of Cognition (CNBC), and Nathan Urban, head of the Department of Biological Sciences, will be honored on Jan. 20 as part of a celebration and launch of a new strategic research initiative for CMU — brain, mind and learning sciences.

Tarr has received the George A. and Helen Dunham Cowan Professorship in Cognitive Psychology, and Urban has received the Dr. Frederick A. Schwartz Distinguished Professorship in Life Sciences. The two will participate in a panel discussion titled “How To Build a Better Brain.” Moderated by CMU Executive Vice President and Provost Mark Kamlet, the panel also will include Justine Cassell, director of CMU’s Human-Computer Interaction Institute, and Professor Marcel Just, the D.O. Hebb Professor of Psychology, an expert on the architecture of human thought.

The hiring of Tarr as co-director of CNBC and the promotion of Urban to head of biological sciences has provided major new momentum to this research thrust, and is but one sign that Carnegie Mellon is committed to enhancing its leadership position in this field.

Tarr and Urban talk here about why brain, mind and learning research is different at Carnegie Mellon, and about where they see the university headed.

On Jan. 20, the university will host a panel discussion called “How To Build a Better Brain.” What can you tell us about the event?

URBAN: The event will highlight and celebrate some of the great things going on in brain, mind and learning sciences here at CMU. Building Better Brains will bring people together to talk and learn about the exciting future of this research.

TARR: Carnegie Mellon has a unique approach to these topics that leverages its focus on world-class computational programs and real-world applications to develop new technologies that bear on fundamental questions about the brain, the mind and learning.

What does Carnegie Mellon have to offer on brain science research that distinguishes itself from other universities?

URBAN: Brain science at CMU is extremely interdisciplinary with a strong focus on computation and real-world applications. It’s very common at CMU for experimentalists coming from biology or psychology to work closely with statisticians or computer scientists or engineers. This can result in computational scientists becoming interested in knowing more about how the brain solves many different kinds of problems — for example, in object or speech recognition — and also in neuroscientists and cognitive neuroscientists becoming interested in knowing more about the computational principles that underlie solutions to such real-world problems.

TARR: Consider that inventors have always used the natural world for inspiration. DaVinci and others tried to make bird-like wings to fly. Although such simple mimicry does not always lead directly to a solution, it often does point to components of the eventual solution. Studying how the brain performs tasks, such as visually recognizing faces and objects, decoding the auditory stream into different speakers and sounds, and recalling past events may all provide insights into how to build devices to solve these problems.

URBAN: At the same time, these insights may provide enormous benefits both in helping repair or treat brain dysfunctions, including autism, dyslexia and Alzheimer’s, and in facilitating



NATHAN URBAN AND MICHAEL J. TARR

PHOTO BY TIM KAULEN

more effective educational models.

TARR: For example, CMU researchers are applying cognitive theory and cognitive modeling to identify the critical instructional conditions that facilitate effective student learning.

How do the Psychology and Biology departments work together in brain science?

TARR: In my opinion, Biology and Psychology are extremely complementary, although people in these fields are often satisfied with rather different kinds of answers to the same questions. Biologists tend to be strongly reductionist in that they like to explain things in terms of the behavior of cells or even molecules. That being said, the ability to image the detailed structure and function of the human brain — for example, using functional Magnetic Resonance Imaging (fMRI) — is providing more and more of a link between the biological and psychological approaches.

Because CMU is blessed with a highly interactive and multi-disciplinary faculty — particularly as exemplified and facilitated by the Center for the Neural Basis of Cognition (CNBC) — these links are both meaningful and productive. Researchers anchored in specialties as diverse as machine learning to cellular neuroscience (and everything in between) work together at CMU, forging new ways to look at old problems on the brain, mind and learning.

What are some of the other departments on campus that are involved in similar research areas?

URBAN: Work in the brain, mind and learning sciences spans an incredible number of departments and centers across CMU. These include departments in H&SS (psychology, social and decision sciences, statistics and philosophy), in the Mellon College of Science (biological sciences), in the School of Computer Science (machine learning, computer science, robotics, human-computer interaction) and in the College of Engineering (biomedical engineering).

Cross-college centers and programs

include the CNBC, the new Scientific Imaging and Brain Research Center, the Pittsburgh Science of Learning Center and the Open Learning Initiative.

If we understand how the brain is wiring itself, how do we apply that knowledge to benefit people’s health and well-being?

URBAN: Understanding the fundamental principles of human brain function and behavior will yield both unexpected and high impact gains in how we treat developmental diseases, mental health disorders, and brain dysfunction and injuries. Some of the effects of this knowledge will manifest as prevention or treatments that reverse disorders or dysfunction, but the largest impact will be felt in both neuropharmacological and behavioral interventions.

TARR: We will also see significant advances in how we exploit our understanding of brain function in the realm of education — there seems little question that a better model of how children’s brains change over development will give rise to improved tools for educators at all levels.

Where is the field of brain science and learning going in the future?

URBAN: As our understanding grows and our technologies advance, models and datasets are both becoming more and more complex. The only way to address these challenges is through computational thinking. As the future brings us more powerful and better integrated models of brain and behavior, computation will become intrinsic to the field. At CMU we are trying to train the next generation of brain scientists who will see such an integrative approach as the natural way to do things.

What are your primary areas of research?

TARR: Work in my lab is focused on questions about how our visual system processes, perceives and recognizes faces and objects. To do this we use a variety of human neuroimaging methods, the most prominent being fMRI. We are trying to unravel how we are able



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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/.

Obtain general information about Carnegie Mellon University by calling 412-268-2000.
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to effortlessly identify visual objects across widely variable conditions that can radically alter the appearance of an object. One of my key interests within this area has been the changes that occur in our brain as we learn a new object category, both upon initial learning and after a great deal of experience. This question is also central for understanding how we acquire our incredible proficiency at recognizing individual faces. As I move into my third decade of research, I have come to realize that only a truly interdisciplinary approach involving computation, psychology, and neuroscience — as exemplified by the CMU community — has any hope of providing meaningful answers to these questions.

URBAN: Work in my lab is focused on questions about how brains use biological hardware to process information. To do this we record from neurons, most often *in vitro*, and try to understand how the properties of neurons and their connections allow the brain to process information. Most of our work is in the olfactory system. Working in a sensory system allows us to make inferences about how the properties that we study *in vitro* are important for processing real sensory stimuli. Often we find it helpful to build computer models of neurons and circuits in order to make the connection between our experimental data and the kinds of processing that we believe goes on during behavior.

Why did you choose those topics?

TARR: I grew up and hung around CMU and was strongly influenced by its prominence in both cognitive science and computer science. I went off to college figuring I would study artificial intelligence (AI), build the first “thinking” computer and the rest would be history. Somehow the rest of the country wasn’t where CMU was in studying AI, so I drifted into cognitive

science, where at least the questions were similar to those with which I was fascinated. In graduate school I tried to bridge the gap between what I had learned as a cognitive scientist and what was going on in computer science, vision being one topic where there was some hope of meaningful connections. Although building such connections was and is difficult, I have continued to keep this goal in sight throughout my research career: coming back to CMU offers a natural way for me to pursue these links in a serious way.

URBAN: I started off doing my Ph.D. in an experimental lab thinking that I wanted to learn how experiments were done so that when I went and built models they would not be completely unrealistic. My primary goal when I went to graduate school was to do computational neuroscience. I discovered, much to my surprise, that I was not terrible at all kinds of experiments, only some kinds. So my Ph.D. and postdoctoral work were in neurophysiology, trying to understand how single neurons and single synapses (connections between neurons) work. For me this work was always motivated by thinking about neurons and circuits as computational devices. Questions like, “What’s the most complicated mathematical operation that a single neuron can perform?” provided motivation for me.

Anything else we should know about?

TARR: The study of the mind and brain is the last frontier of science. Sometimes I envy my physics or chemistry colleagues in the depth to which they truly understand the systems they study. Then I remember it is (arguably) much more exciting to work in an area where most of the interesting stuff remains undiscovered.

PANEL DISCUSSION

What: How To Build a Better Brain
When: 5 p.m., Wednesday, Jan. 20
Where: Rashid Auditorium

The panel discussion will be moderated by Mark Kamlet, provost and executive vice president of the university. Additional members of the panel include:

Justine Cassell

Director of the Human-Computer Interaction Institute

Cassell’s research focuses on deconstructing the linguistic elements of conversation and storytelling in such a way as to embody machines with the conversational, social and narrative intelligence they need to interact with humans in human-like ways. It also addresses the impact and benefits of technologies such as these on learning and communication.



JUSTINE CASSELL

Marcel Just

Director, Scientific Imaging & Brain Research Center and D.O. Hebb Professor of Psychology

Just’s research uses brain imaging (fMRI) in language and perception tasks to study the neural basis of human thought. The projects examine normal cognitive functioning in college students and in adolescents, as well as in special populations, such as patients with autism and children with dyslexia.



MARCEL JUST

Looking to get involved?

Carnegie Mellon’s Faculty & Staff Annual Fund Committee is looking for additional volunteers. To learn more about volunteering, contact Carole Panno in the Office of Annual Giving at cp1g@andrew.cmu.edu or visit www.cmu.edu/campaign/involved/faculty.html.

\$1 BILLION

11/30/2010
\$676.7M



WE CAN MAKE A DIFFERENCE. CARNEGIE MELLON UNIVERSITY IS ON TRACK TO REACH THE \$1 BILLION GOAL OF OUR INSPIRE INNOVATION CAMPAIGN. THANKS IN PART TO THE SUPPORT OF OUR CAMPUS COMMUNITY, THE UNIVERSITY IS IN THE HOMESTRETCH TO ACHIEVE THIS HISTORIC MILESTONE. VISIT CMU.EDU/CAMPAIGN FOR THE LATEST CAMPAIGN NEWS AND PROGRESS, OR TO MAKE YOUR GIFT TODAY. PROGRESS SINCE OCTOBER 15, 2010: \$6,059,411

Two New Programs To Debut at MLK Jr. Day, Jan. 17

Bennett College for Women President To Discuss King's Vision for Economic Justice

■ Abby Houck

Civil rights leader Martin Luther King Jr. urged his followers to march to the beat of justice, peace and righteousness.

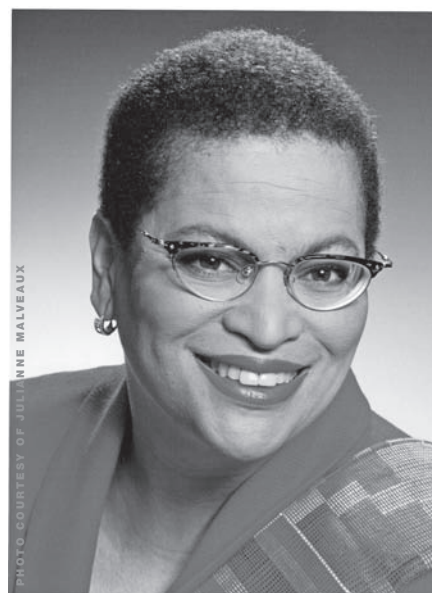
On the 25th anniversary of the federal holiday in his honor and memory, about 30 student leaders will gather together on Monday, Jan. 17 to discuss what King called the “drum major instinct.” This introductory social justice experience is one of two new pilot initiatives being introduced by the Division of Student Affairs.

The second new twist will give black men (students, faculty and staff) the opportunity to participate in the August Wilson Center for African American Culture’s “The Black Man Is” initiative. Participants will discuss their personal experiences in small groups known as “story circles,” which will be recorded and later incorporated into a community theater project. “Story circles” are being held throughout Pittsburgh this winter.

While the celebration will include some new wrinkles this year, many traditional events will continue, beginning with President Jared L. Cohon’s annual State of Diversity Address in Rangos

Hall. Students from the School of Drama will perform a tribute to Dr. King as part of the event. The Martin Luther King Jr. Writing Awards Ceremony and the Community Conversation follow in McConomy Auditorium. All classes after 12:30 p.m. are canceled for the day.

Everett Tadem, assistant vice president for diversity and equal opportunity services, will moderate this year’s Community Conversation, featuring panelists Al Blumstein, the J. Erik Jonsson University Professor of Urban Systems and Operations Research; Larry Davis, dean of the School of Social Work, Donald M. Henderson Professor, and director of the Center on Race and Social Problems at the University of Pittsburgh; and Lisette



JULIANNE MALVEAUX

The Economic Legacy of Dr. King

King fought for social justice in all aspects.

Julianne Malveaux, president of Bennett College for Women in Greensboro, N.C., will continue his fight at 5 p.m., Monday, Jan. 17, in a keynote address titled “The Economic Legacy of Dr. Martin Luther King Jr.,” in which she’ll address King’s vision for economic justice and the work that must continue for his dream to be attained.

Malveaux contributes to the public dialogue on issues such as race, culture, gender and their economic impacts. She is founder of Last Word Productions Inc., a multimedia production company headquartered in Washington, D.C.

As a writer and syndicated columnist, her work appears regularly in USA Today, Black Issues in Higher Education, Ms. Magazine, Essence magazine and the Progressive. Her weekly columns are published in numerous newspapers, including the Los Angeles Times, Charlotte Observer, Detroit Free Press, New Orleans Tribune and San Francisco Examiner.

“WE ALL HAVE THE DRUM MAJOR INSTINCT. WE ALL WANT TO BE IMPORTANT, TO SURPASS OTHERS, TO ACHIEVE DISTINCTION, TO LEAD THE PARADE ... AND THE GREAT ISSUE OF LIFE IS TO HARNESS THE DRUM MAJOR INSTINCT. IT IS A GOOD INSTINCT IF YOU DON’T DISTORT IT AND PERVERT IT. DON’T GIVE IT UP. KEEP FEELING THE NEED FOR BEING IMPORTANT. KEEP FEELING THE NEED FOR BEING FIRST. BUT I WANT YOU TO BE THE FIRST IN LOVE. I WANT YOU TO BE THE FIRST IN MORAL EXCELLENCE. I WANT YOU TO BE THE FIRST IN GENEROSITY.” — MARTIN LUTHER KING JR.

McCormick, executive director of the United Judicial System of Pennsylvania’s Interbranch Commission for Gender, Racial and Ethnic Fairness.

At 4:30 p.m., the campus community will gather in the Purnell Center

lobby to begin a candlelight march to the University Center, where student speakers, the keynote address and a one-man show, “Perfection,” by School of Drama student Joshua Wilder, will close the day’s activities.

MLK Schedule Online

For the full schedule of MLK Jr. Day activities and updates, visit www.studentaffairs.cmu.edu/first-year/mlk/index.html. Questions should be directed to Anne Witchner, assistant dean of Student Affairs, at aw0w@andrew.cmu.edu.

Universities InterACT To Give Students a Global Edge

■ Sylvia Leong

Success is where preparation and opportunity meet.

That’s the mission of the International Center for Advanced Communications Technology (interACT), a consortium of universities whose goal is to prepare students for a global society.

At a recent two-day interACT Presidential Summit, attendees, including presidents of the seven universities that comprise interACT, discussed ways to achieve that goal.

At the beginning of the summit, held at the NASA Advanced Research Center in Mountain View, Calif., interACT Director Alex Waibel, a professor at Carnegie Mellon and Karlsruhe Institute of Technology, discussed what the center is and what it is dedicated to accomplish.

“It is a somewhat unusual organization, or consortium. It’s a network of universities that want to collaborate in preparing for a globalized future,” Waibel said.

InterACT is a joint center between seven of the leading institutions and their schools of computer science in the U.S., Europe and Asia:

- Carnegie Mellon, and its branch in Silicon Valley, Calif.;
- Hong Kong University of Science and Technology;
- Italian Institute of Technology, Genova, Italy;
- Karlsruhe Institute of Technology, Karlsruhe, Germany;
- National Institute of Information and Communications Technology, Tokyo, Japan;
- University of Southern California, Los Angeles;
- Waseda University, Tokyo, Japan.

Founded in 2004, the mission of interACT is to train students, staff and faculty to operate in international research teams across multinational and multicultural boundaries.

The center offers international exchange programs, seminars and academies, and facilitates cross-national research projects like improving cross-cultural understanding, cross-lingual communication, transnational cooperation and collaboration.

“We believe it has been very successful, we believe that all of our institutions have benefited from it, and it has produced real results in the form

of research, and education,” said CMU President Jared L. Cohon. “It represents a global collaboration of a dimension that is rarely seen, but is growing rapidly, and we will provide a lot of leavening for others.”

A good example of these projects is Jibbiggo. Not only was the translation tool featured in a recent Apple commercial but a new development could have a global impact — the release of a translation tool between English and the Iraqi dialect of Arabic.

The new application developed for the iPhone 3GS was the work of researchers at Jibbiggo LLC and interACT. A user speaks either English or Arabic into the iPhone and the Jibbiggo app produces a spoken and text translation in the other language.

The software, now available from Jibbiggo through the iPhone App Store, operates on the iPhone itself, so it can operate as a free-standing communicator without the need to be connected to the Web or a phone network.

piper TRIVIA

Congratulations to Nancy Fritsch, Terri Figurelli, Barbara J. Ray and Janel A. Sutkus for correctly answering the November Piper Trivia question.

Go online to the Piper+ at <http://bit.ly/CMUpiper> for this month’s question. Previous winners are ineligible. Winners will receive a prize from the Carnegie Mellon Bookstore.

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Classes Find Success with Book-Length Comics

■ Heidi Opdyke

“POW!” “BAM!” “Dynamics of Demand!”

In today’s classroom, textbooks sometimes look more like comic books on steroids.

Graphic novels are a genre of their own and have been working their way into mainstream culture and a variety of CMU classrooms.

“If pictures are, indeed, worth a thousand words — pound for pound, page for page — Dostoyevsky has nothing on Craig Thompson’s illustrated and autobiographical ‘Blankets’ with its 592 pages,” said Drew Davidson of the Entertainment Technology Center (ETC), who described a coming-of-age work that Time Magazine called one of the best English language graphic novels ever written.

As a literary form, graphic novels recently have taken on a fresh life by explaining old ideas in new ways.

“Graphic novels are very different forms. People who are interested in a pared down writing and in the relationship between the verbal and the visual are naturally drawn to them,” said English Professor Jane McCafferty, who co-taught a 2008 class on writing and illustrating graphic novels. “Right now, people’s attention spans aren’t great, so there’s an appeal to move really quickly and have a visual component.”

At the ETC, Davidson, director of ETC-Pittsburgh and editor of ETC Press, said while the center does not teach the form directly, it is an interesting reference point. Students often use storyboarding techniques to help shape their projects.

“They are such a great hybrid medium. People really push the art of

combining text and media and telling new story. It’s such a great thing for us in interactivity,” he said. “We encourage and challenge the students to understand what experience they’re really trying to have, and that becomes the touchstone for all the design experiences we’re trying to make.”

Robert Hampshire, a professor in the Heinz College, uses that visual framework in his lectures. He is the author and co-illustrator of a series of short stories and uses the characters on PowerPoint slides to reinforce concepts in his management science and service management courses.

“Super Operations Manager started as a way for me to explain to friends and relatives what exactly it was that I did at work. When you break down the story of management science into terms people can understand, it’s easier for students to grasp key concepts,” Hampshire said.

Villains represent business concepts and have names like Complexity, Scaling and Variance. The leader of these Forces of Chaos is named Uncertainty. Hampshire’s heroes tackle the villains with different management styles. For example, the title character Super Operations Manager is an intuitive, smart thinker who always sees the big picture.

“Each character means something, as far as the content of the class. One character is very good at doing calculations with a quantitative focus. So any time there is an important calculation or an analytic step, that character shows up,” he said. “Master students at Heinz at first think this is very odd. But the feedback that I’ve gotten back is that it has been very helpful for them in mak-

ing associations with the characters and the concepts.”

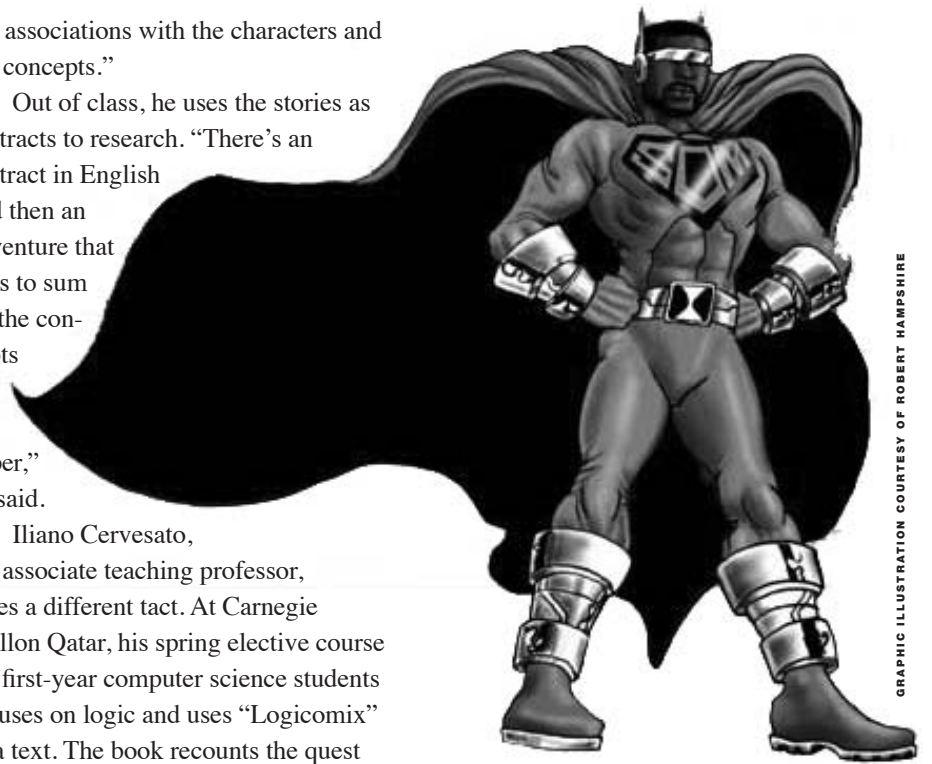
Out of class, he uses the stories as abstracts to research. “There’s an abstract in English and then an adventure that tries to sum up the concepts in the paper,” he said.

Iliano Cervesato, an associate teaching professor, takes a different tact. At Carnegie Mellon Qatar, his spring elective course for first-year computer science students focuses on logic and uses “Logicomix” as a text. The book recounts the quest for the Foundations of Mathematics and is grounded in philosophic struggles, historical events and ideological battles as told through the eyes of Bertrand Russell, who was a British philosopher, logician, mathematician, historian, pacifist and social critic.

“Students love graphic novels, and they are a fun way to introduce a topic like logic, especially to freshmen,” Cervesato said. “The artistic and storytelling side are also a great opportunity to explore aspects that are not usually covered in a typical logic class.”

Since starting the course in 2010, Cervesato has accumulated a small collection of graphic novels centered around academic topics.

“I was surprised to learn how many there are out there, especially given how long it takes to write one. I tend to see them as a means to an end, so ‘Logicomix’ was a natural choice



GRAPHIC ILLUSTRATION COURTESY OF ROBERT HAMPSHIRE

SUPER OPERATIONS MANAGER IS JUST ONE OF THE CHARACTERS ROBERT HAMPSHIRE USES TO ILLUSTRATE BUSINESS CONCEPTS FOR HIS MANAGEMENT COURSES.

for me. Somebody teaching evolution may find the recently published graphic novel on the life of Charles Darwin an equally good tool, for example. One that I found fascinating is Scott McCloud’s comic book about the structure of comic books.”

Cervesato is working to measure the effectiveness of using a graphic novel by looking at how students who took his course did compared to first-year students who took other courses and how each group did in relevant, required sophomore courses.

“I will know (results) in a couple of weeks as their first semester as sophomores ends,” he said.

Creating a Niche

One sculptor found a niche in working with architects.

Achille “Archie” Giammartini is one of the only recognized sculptors to work on the College of Fine Arts building when construction started in 1912 by Henry Hornbostel’s firm. Giammartini worked on the central niche and the immediate alcove to its south.

Charles Rosenblum, assistant teaching professor of architecture, led a tour in early October for several of Giammartini’s great-granddaughters and great-great granddaughters from Virginia and Georgia. The family also provided additional records about Giammartini’s work for the university’s collection.

“We’ve been talking about doing this for six years,” said Kathryn Gaddy, of Alexandria, Va. “We knew from our father that he was quite a character.”

Rosenblum, whose 2009 dissertation focused on Hornbostel’s architecture, said Giammartini executed designs in the niches that included carving “Creare” over the entrance and sculpting columns from different periods of architecture.

“[Giammartini]’s work has a tendency to be on the ornate side,” Rosenblum said. “He and Hornbostel knew each other’s work and brought out each other’s best qualities.”

Hornbostel’s firm won Andrew Carnegie’s original campus design competition and he helped establish the School of Architecture and was the first head. Many of the records on details about the building were destroyed after his death in 1961.

“The drawings he had to execute from were pretty rough,” Rosenblum said. “He had quite a bit of artistic license and flexibility.”

The visiting family also included Patty MacNabb, Peggy Thompson, Emily Gaddy and Rachel MacNabb.

CHARLES ROSENBLUM DESCRIBES THE WORK THAT WENT INTO THE COLLEGE OF FINE ARTS BUILDING NICHE TO DESCENDANTS OF ONE OF THE ORIGINAL SCULPTORS.



PHOTO BY HEIDI OPDYKE

Master Plan Focuses on Prime Real Estate, Maximizing Space

PROPOSED PROJECTS

Six major projects have been identified as priorities for the university that could be developed as demand and funding evolve. They are:

A new nano-energy center that will be located between Wean, Hamerschlag and Roberts halls. The center will focus on nanoscale research and also will house the entire Biomedical Engineering group under one roof for the first time.

A new Tepper School of Business facility at the Morewood parking lot site, which will create a new “all-in facility” for the school, and together with the Heinz College will form a gateway to campus. Reppe said the new home for the Tepper School could be the first of several new projects on that site, which is thought to be a prime area for future development. Plans to re-use the existing Tepper School facility and to account for the loss of parking spaces in the Morewood lot are being studied.

Additions to the University Center (Forbes Avenue side) and a major reconfiguration of Skibo Gym (Margaret Morrison Street side) that will create more and higher-quality space for athletics, fitness and recreation.

An extension to Margaret Morrison Carnegie Hall that will reach toward Donner Hall to support all of the College of Fine Arts’ programs.

A new student housing development at the corner of Margaret Morrison and Forbes that will rebuild Woodlawn Apartments as well as three adjacent homes on Forbes for new student housing, creating a gateway to campus from the east.

Transforming the end of the Cut (at Morewood and Forbes) into the formal entrance of the university. Reppe said this reconfigured center of campus, much like a traditional town square, would serve as the heart of campus and could create “the sense of arrival at Carnegie Mellon.” Buildings that frame this space could house central academic activities and administrative and student life functions, such as those associated with Student Affairs, University Advancement and Alumni Relations.

CONTINUED FROM PAGE ONE

trees and traffic signals, and signage that directs pedestrians to use designated street crossings instead of jaywalking.

These projects and more are part of the vision of Carnegie Mellon’s new master plan for the Pittsburgh campus, a set of blueprints that will guide the university’s growth through 2020. The City of Pittsburgh Zoning Code requires all universities and hospitals to submit a new master plan for city council approval every 10 years. These plans become a legal zoning document for new building projects and enables projects in the plan to proceed along a streamlined review process.

The current plan, created in 2002, is a tough act to follow. Results of that plan include the Collaborative Innovation Center (CIC), Stever House, the Posner Center, the Doherty Hall renovations, the Gates and Hillman centers, and the development of the green West Campus in between CIC, Newell-Simon, Smith, and Gates Hillman.

The new plan aims to direct and enable growth of the Pittsburgh campus despite its constraints to the south (Schenley Park), east (Squirrel Hill), north (Shadyside) and west (Carnegie Museums and the University of Pittsburgh).

“The need to maximize space is critical,” said Bob Reppe, director of

design for Campus Design and Facility Development, who has been presenting initial concepts of the plan to campus and neighborhood organizations for the past several months. “Over the last 10 years the full-time campus population has grown by about 3,000 people and the demand for academic, research, student and support space increases every year.”

While demand for workspace has increased, the demand for parking has not at the same rate. For example, on an average day many spaces are available in the East Campus Garage and the Gates Garage. Part of the excess supply, Reppe notes, comes from increased use of public transportation due to the university’s bus pass program and increased bicycle ridership.

“Instead of using traditional ratios for determining parking supply, such as the standard two parking spaces per 1,000 square feet of building, the master plan will look at overall campus needs and demands, and then identify targeted locations for reservoirs of parking that will serve the entire campus. These reservoirs, like the East Campus Garage, will be carefully explored and will likely be built out in phases over time,” Reppe said.

Priorities & Areas of Focus

Reppe said the main objectives of the master plan include: continuing to grow the campus toward Craig Street; maximizing prime development areas, such as the Morewood parking lot and

CONTINUED ON PAGE SEVEN

UPCOMING PRESENTATIONS

Reppe anticipates submitting the final Master Plan to the city during the first-quarter of 2011. He will be making presentations to the Faculty Senate and Staff Council in January. Other groups are being scheduled as well as a town hall meeting for the entire campus community, which will be announced at a later date.

Faculty Senate — 4:30 p.m., Tuesday, Jan. 11, Connan Room, University Center

Staff Council — Noon, Thursday, Jan. 20, Rangos 3, University Center

A Calmer Forbes Sought for Safety

■ Bruce Gerson

One key component to the master plan is creating a safer Forbes Avenue for pedestrians, bicyclists, public transportation and motorists.

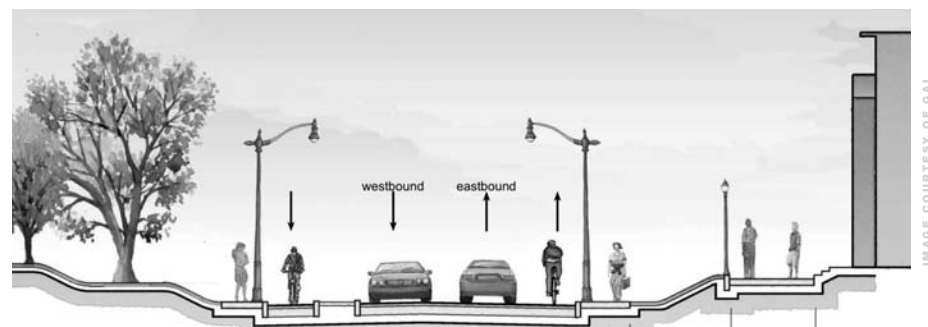
Funded by a grant from PennDOT, the university and the Oakland Transportation Management Association (OTMA) recently concluded gathering data for the Oakland/CMU Pedestrian Safety Mobility Study that looked at 10 intersections — five along Forbes Avenue and five along Fifth Avenue.

Some of the key findings have been the poor standards for electronic crosswalk signals and signage, the dangerous pedestrian conditions and the abundance of speeding in these areas.

At a recent open house, CMU, OTMA and the consulting firms GAI Consultants and Kittelson & Associates, Inc. presented the findings and discussed some possible solutions, which include “traffic calming” and pedestrian safety tactics along Forbes and Fifth.

“We did traffic counts and so far they’re very favorable for coming up with a ‘road diet’ (for Forbes),” said John Wojtyna, senior engineering director for GAI.

Wojtyna said one option that is being serious explored would reduce traffic to one lane in each direction on Forbes between Margaret Morrison and Craig streets (while maintaining the left-



ONE OPTION BEING CONSIDERED TO MAKE FORBES AVENUE A SAFER ROAD IS TO REDUCE THE NUMBER OF TRAFFIC LANES AND ADDING BICYCLE LANES.

turn lanes at Morewood and Beeler) and adding striped bicycle lanes.

Wojtyna and Jamie Parks, senior planner for Kittelson & Associates, also discussed a change to the crosswalk signals along Forbes and Fifth. They said the “all-walk” crossing signals — stopping traffic in all directions — actually lengthens delays for motorists and for pedestrians.

“When all traffic is stopped at Morewood and Craig as a result of the exclusive pedestrian phases, traffic along Forbes empties out, and that encourages jaywalking,” Wojtyna said. He noted when the light changes, the entire “platoon” of cars race en masse to the next signal.

The consultants said implementing a “leading pedestrian interval crossing system,” which allows pedestrians to get a four- or five-second head start crossing with traffic, would improve safety and shorten delays without compromising

capacity.

Wojtyna noted that safety improvements could be made along Morewood Avenue as well. He said the sidewalks along the west side of Morewood could be pulled back toward the residence halls, making room for a two-way bike lane from Fifth to Forbes, which also would separate pedestrians from vehicular traffic.

The heavier traffic along Fifth Avenue makes that roadway more difficult to adjust. However, Reppe said that improvements could be made to the existing dangerous intersections by adding Americans with Disabilities Act approved electronic crosswalk signage, widening crosswalks, and adding more permanent crosswalk markings.

Wojtyna said the study findings are still being analyzed and feedback from the open house will be reviewed before a final report and recommendations are made.

Commerce Department Invests in Tepper School, Innovation Works



U.S. DEPUTY ASSISTANT SECRETARY OF COMMERCE FOR ECONOMIC DEVELOPMENT BRIAN MCGOWAN (LEFT) PRESENTED RICH LUNAK, PRESIDENT AND CEO OF INNOVATION WORKS, AND ART BONI, EXECUTIVE DIRECTOR OF THE DONALD H. JONES CENTER FOR ENTREPRENEURSHIP, WITH A \$1 MILLION i6 CHALLENGE GRANT.

■ Mark Burd

The thriving spirit of entrepreneurship at the Tepper School of Business and across Carnegie Mellon's campus was recognized by a special visit from U.S. Department of Commerce officials, commemorating the award of a prestigious i6 Challenge Grant.

Brian McGowan, U.S. Deputy Assistant Secretary of Commerce for Economic Development, explained the significance of the \$1 million award to the Tepper School's Donald H. Jones Center for Entrepreneurship and Innovation Works.

The grant is designed to jump start new companies at the earliest stage of development and bolster the existing entrepreneurial framework.

"It is an exciting opportunity to highlight some of the nation's best minds who are helping to move ideas from the lab into the marketplace," McGowan said during the Nov. 12 ceremony.

"Startups are a part of our culture," said Art Boni, executive director of the Jones Center. "In 2010, the university had 30 spinoff companies, including 10 with direct licensed technologies from

the university. Our tech transfer policy has been modified to encourage faculty startups with a standard and painless licensing process."

Each year, the Jones Center teaches about 1,000 students, both graduates and undergraduates, across campus. It also collaborates with other university stakeholders including the Center for Technology Transfer and Enterprise Creation, Project Olympus and the Entertainment Technology Center.

The "agile innovation system" of the i6 grants ensures that research is commercialized by nurturing companies at their earliest stage of development during the next two years.

Following the presentation, a panel discussed ways to create local spinoffs and generate local jobs.

Panelists included Lenore Blum, director of Project Olympus; Rick McCullough, CMU's vice president of research; Jay Katarincic, managing director of Draper Triangle Ventures; Angela Kennedy, president and CEO of Carnegie Speech Co., and Rich Lunak, president and CEO of Innovation Works.

Scholarship Aid

Paul Russo (S'86), a managing director at Goldman Sachs, and his wife, Allison (TPR'88), visited campus after Goldman Sachs Gives made a \$2 million gift this fall to assist students whose families have been disproportionately affected by America's economic recession. Goldman Sachs Gives is the donor-advised fund of Goldman Sachs partners. The contribution will fund both endowed and expendable scholarships for students.



URNA BISWAS (LEFT), A JUNIOR BUSINESS ADMINISTRATION MAJOR, WAS AMONG THE 28 STUDENTS WHO MET ALLISON RUSSO (TPR'88) ON NOV. 30.

Plan Focuses on Prime Real Estate

CONTINUED FROM PAGE SIX

the recently purchased properties along Forbes; creating flexibility and opportunities for new and emerging fields and partnerships; and continuing to establish connections between the core campus and university sites in Oakland.

Over the past five years CMU has made several strategic property acquisitions in the Forbes/Craig Street area. They include the former site of the Exxon Station (4621 Forbes), the Graphic Arts Technical Foundation building, a lot in Junction Hollow on the south side of Forbes, the National City Bank property (4612 Forbes), and properties at 4620, 4622 and 4626-4628 Forbes. These properties represent the future growth of the university and are being carefully considered for how they are integrated into the campus.

An experienced urban planner who came to CMU after a decade with Pittsburgh's Department of City Planning, Reppe noted that developments in the Forbes/Craig area may focus on university-corporate partnerships and will support the vitality of the Craig Street business district. They also will serve as important links to the Mellon Institute, Software Engineering Institute and offices along Craig Street as well as to the vital Oakland community.

"The plan has three main focus areas," Reppe explained. "One is developing long-range plans in areas of opportunity, such as the Morewood parking lot and the Forbes/Craig area. Second is embedding individual projects into the plan, and third is to make Forbes Avenue pedestrian and bicycle friendly. The vision is that Forbes becomes the Main Street of campus, rather than a highway dividing the campus."

Pittsburgh Poet

In a special ceremony, Pittsburgh City Council proclaimed Nov. 30, 2010, "Terrance Hayes Day" to recognize the CMU English Professor "as one of America's most dynamic and accomplished poets." Hayes won the National Book Award on Nov. 17 for his fourth poetry collection, titled "Lighthead." After receiving the city's proclamation, Hayes noted that Pittsburgh has a diverse and thriving arts scene unique from any other place he's lived. "Pittsburgh is where I became a poet," he said. "Any award or recognition I receive is a result of the resources this city provides." Find more Hayes coverage online at <http://bit.ly/CMUpiper>.



MEMBERS OF PITTSBURGH'S CITY COUNCIL SURROUND ENGLISH PROFESSOR TERRANCE HAYES DURING THE CEREMONY PROCLAIMING NOV. 30, 2010, TERRANCE HAYES DAY.

Winging It **Design Students Create Interactive Display at the Natural History Museum**

■ Eric Sloss

It turns out I am more like a dove than a pigeon. Doves are team players, OK with long-term relationships and they like to sing along to the music.

I learned what kind of bird I am like by taking a “Bird Personality Test” as part of a new exhibition called “Winging It: An Experimental Gallery About Birds.” School of Design students in two senior project courses — “Exhibit Design” and “Communication Design” — built the display at the Carnegie Museum of Natural History. Work began last spring and the exhibition will run through March 19, 2011.

In the classes, taught by professors Mark Baskinger and Stacie Rohrbach, students created videos, interactive displays and two wooden showcases for the museum’s bird specimen collections.

“We felt it was important to find ways for visitors to understand why birds matter and to include information on how they can take action and get involved,” said Amanda Henderson (A’10).

Twenty-five students were split into four groups. Each group created a gallery exhibition concept and design to help visitors interpret different aspects of the avian research at Carnegie Museum of Natural History. In May, proposals were presented to museum staff, who then chose elements from several of the proposals to create the exhibition.

The process of creating “Winging It” was mutually beneficial, with



STUDENTS HELPED CREATE A NEW EXHIBIT CALLED “WINGING IT: AN EXPERIMENTAL GALLERY ABOUT BIRDS” AT THE CARNEGIE MUSEUM OF NATURAL HISTORY.

THE MUSEUM IS OPEN 10 A.M. TO 5 P.M. TUESDAYS THROUGH SATURDAYS, UNTIL 8 P.M. THURSDAYS, AND NOON TO 5 P.M. SUNDAYS. GENERAL ADMISSION IS \$15; \$12 FOR SENIORS; \$11 FOR STUDENTS AND CHILDREN 3-11 YEARS OLD; AND FREE FOR THOSE UNDER 3. INFORMATION: 412-622-3131 OR WWW.CARNEGIE MNH.ORG.

students getting hands-on experience working with a major museum, the museum obtaining a fresh perspective on its world-class avian research and museum visitors gaining a new insight into the world of birds.

“Mark Baskinger and I believed that drawing attention to the museum’s research would serve as an excellent basis for the semester-long project,” Rohrbach said. “We wanted to help the museum engage the public in interactive experiences focused on scientific research, and do it in a way that teaches the students to gather, analyze, and syn-

thesize information into an exhibition prototype.”

The wood panels are installed on top of a sky blue wall with shadows of birds. Glass display cases hold about two dozen birds, feathers, skeletons and eggs.

The “Bird Personality Test” is beautifully carved out of Baltic birch plywood and etched with questions based on behavioral traits, starting with “How much time do you spend in the water?” Each question leads to another trait, which leads to more playful questions for visitors to determine their winged counterpart.

A series of panels and videos tell visitors how and why birds sing and how they migrate. Visitors also can “band” themselves with temporary silver bracelets that resemble the bands used by researchers to permanently tag birds. Museum researchers capture and release birds at Powdermill Nature Reserve, the museum’s biological research station 55 miles east of Pittsburgh, which hosts one of the longest continually running bird banding stations in the country.

“It’s only natural for these two institutions to collaborate,” said Ellen McCallie, deputy director for the museum, who helped manage the program. “The museum’s scientists conduct important and often complex research, while just up the road Carnegie Mellon is teaching students how to process complex ideas into accessible visual designs. With the success of ‘Winging It,’ I’m sure we’ll see this collaboration continue and become an annual experience for the students, museum staff and our visitors.”

Food Drive Brings in Record Numbers

Carnegie Mellon’s 17th Annual Food Drive, sponsored by Staff Council, collected 9,026 pounds of non-perishable food items and \$2,107.90 for the Greater Pittsburgh Community Food Bank, making this year the most successful food drive in university history. Last year, CMU donated nearly 8,000 pounds of food and \$1,702. Located in Duquesne, the Greater Pittsburgh Community Food Bank collects, stores and distributes food and household products to nearly 350 charitable agencies in southwestern Pennsylvania through soup kitchens, food pantries, shelters, and day care, senior centers and special care facilities for low-income people.



PICTURED AT THE FOOD BANK AFTER UNLOADING THE TRUCK FULL OF FOOD ARE STAFF COUNCIL MEMBERS MARK BANISTER, MICHAEL FOUCH, CAROLE PANNO AND KATIE LAMBROU.

Museum Displays Gigapixel Images

■ Byron Spice

A “bait ball” of salem fish swirling off the Galapagos Islands, one of the world’s largest Adelle penguin colonies basking on an Antarctic beach and ancient petroglyphs in northern Saudi Arabia depicting hunters and their prey are three of the arresting scientific panoramas on display at the Carnegie Museum of Natural History through Dec. 31.

The images were selected for a juried gallery show in conjunction with the Fine International Conference on Gigapixel Imagery for Science, which took place in early November.

Each of the eight giant images is a very high-resolution image created by combining tens or hundreds of individual digital photos. Combined, the eight images include almost 4 billion pixels, or enough to fill 10 billboards at standard resolution.

“Standing a couple of feet from one of these huge prints feels like being taken to another place — your field of view is covered by imagery as detailed as your eyes can possibly see,” said Randy Sargent, a scientist at Carnegie Mellon and the NASA Ames Research Center who was a general co-chair of the Fine Conference. “It was very difficult for the team to select among the submissions — these scientists have some very important and compelling places to take us.”

In addition to the print show at Carnegie Museum of Natural History, the images also can be explored at www.gigapan.org or <http://bit.ly/GigapanJuriedShow2010>.

Anniversary Gift Paints Hunt Library in Array of Color

CONTINUED FROM PAGE ONE

The guests of honor were members of the Roy A. Hunt Foundation, who represent four generations of descendants of Roy A. and Rachel McMasters Miller Hunt, donors of the original \$2.8 million gift for the building. Rachel Hunt also donated her priceless botanical history and art collection now housed in Hunt Botanical Library on the fifth floor.

Other guests included university trustees, Pittsburgh foundation leaders and friends of the Hunts, and several students who assisted in library initiatives and the lighting project.

Professor Cindy Limauro and Christopher Popowich, design partners in C & C Lighting, designed the new exterior lighting for the Hunt Library. It's designed to showcase the multi-faceted elegance of the library's aluminum structure and to create a welcoming atmosphere at the canopy entrance.

The lighting will slowly change throughout the night to enhance the library's focal presence on campus. In addition, lighting designs have been created for celebratory campus events, such as graduation and homecoming as well as special holidays.

The green technology behind the display uses color-changing LED bulbs that can mix to white light or create dynamic color combinations. The library's aluminum structure serves as the perfect canvas for painting with color and the designs create a sense of energy and activity at night.

Limauro, professor of lighting design, demonstrated a series of special looks for holidays and events.

President Cohon recognized architecture seniors Grace Ding, Fatima Kanchwala and Arthur Notaro for their participation in the initial Hunt Library lighting study, which resulted in the exterior lighting project funded by the Hunt Foundation.

In addition to a banner of appreciation signed by students, the Hunt Foundation received a gift album of historic documents and photos of the building that included the original gift letter requiring that no building could be built between Hunt Library and Forbes Avenue. President Cohon announced at the event that this space, the Cut, is one of three "view corridors" to be preserved by the new university space master plan.

Richard Hunt, the only living son of Roy and Rachel Hunt, recalled hearing the main address at the Hunt Library dedication program, in which the keynote speaker, Lawrence Clark Powell, dean of the School of Library Service at UCLA, argued that to be great, a university must have a great library.

The Hunts had considered several institutions before they decided to make the investment and deposit Rachel Hunt's collection at Carnegie Tech. They felt strongly that money made in

Pittsburgh should stay in Pittsburgh. She was adamant that her collection be accessible and used, not simply stored away. Finally, Roy Hunt, whose fortune had been made in the Aluminum Company of America (ALCOA), insisted that the library feature aluminum as a building material.

Hunt Library was designed by architects Ritchie Lawrie Jr. (CIT 1911, 1912) and M. Edwin Green (CFA 1920) of Harrisburg at a cost of approximately \$3 million.

Writing in the architectural journal "Charette" in October 1961, Pittsburgh architectural historian James D. Van Trump described the modern structure of "gleaming aluminum and glass" in glowing terms:

"By day quiet and self effacing, at night [Hunt] Library becomes a great ribbed lantern shining out against the dark ridge of trees behind it. Its chief merit is however, that of being a comfortable and workmanlike academic library and a structure that fills more than adequately a long-felt want on the Tech campus," Van Trump wrote.

With bright, vibrant physical space that is highly adaptable to changes in social and academic trends, Hunt Library continues to be a vital center of campus life. Today, the library supports personal technology and group learning and discovery as easily as if it had been born digital, as 21st century students are.

And now, the spectacular exterior lighting completes Van Trump's prescient vision of the library as a great lantern at the center of campus life.



THE HUNT LIBRARY'S NEW EXTERIOR LIGHTING, A GIFT FROM THE HUNT FOUNDATION, HELPS CREATE A WELCOMING ATMOSPHERE AT ITS MAIN ENTRANCE.

Top 10 Thank Yous

At the event, Dean of University Libraries Gloriana St. Clair centered her remarks around the notes students had written on a banner of appreciation to the Hunts, titled "Thanks for 50 Great Years." Her "top 10" of approximately 300 comments:

1. Hunt, I fell in love with you upon first sighting "The Death and Afterlife of Achilles" on your shelves in my second day as a CMU freshman.
2. I love this awesome library.
3. Hunt—my favorite place at CMU.
4. I love hunting in Hunt.
5. Happy Birthday Hunt! And thanks Roy A. Hunt.
6. The library rocks my world (seriously).
7. I need you every day.
8. Dear Hunt, thanks for the third floor (quiet study). It is my home and throne.
9. Happy 50th to the best 24-hour library around.
10. Thanks for being my best friend ever.

Calendar of Events

13th International Exhibition of Botanical Art & Illustration

The exhibition includes 110 watercolors, drawings and prints representing the work of 72 artists from 15 countries. Every three years, the International exhibit features the works of talented botanical artists from around the world. Through Dec. 17. Hours: 9 a.m. to noon and 1 to 5 p.m. Monday-Friday; 1 to 4 p.m. Sunday. The Hunt Institute for Botanical Documentation, fifth floor, Hunt Library <http://huntbot.andrew.cmu.edu/>

Miller Gallery Exhibition

"Whatever it Takes: Steelers Fan Collections, Rituals, and Obsessions" Curated by Jon Rubin and Astria Suparak Through Jan. 30, 2011

University Offices Closed

Dec. 23-24 and Dec. 30-31
Happy Holidays!

Healthy Campus Walk

Noon – 12:45 p.m., Wednesday, Jan. 12
Wiegand Gymnasium, University Center (UC)

Fitness Open House

Stop by to try dodgeball, squash, racquetball and a band and stability workshop. Fitness and wellness staff will be on hand to answer questions and schedule personal training sessions. Free gifts will be available to all participants. Noon – 1 p.m., Friday, Jan. 14
All recreation fitness areas, UC

Martin Luther King Jr. Day

Monday, Jan. 17
See page 4 for more information.

Staff Council General Body Meeting

Open to all staff members
Noon – 1 p.m., Thursday, Jan. 20
Rangos 3

Fitness Challenge Starts

Come to work healthy, leave healthier
Six weeks starting Jan. 24
Sign up at the UC Equipment Desk

"Dido & Aeneas"

Gregory Lehane is the stage director and Andres Cladera is the music director in this School of Drama performance. Jan. 20-23, 8 p.m., Thursday — Sunday, and 2 p.m., Sunday, Philip Chosky Theatre. Ticket prices are \$15 for adults, \$12 for seniors and \$10 for Carnegie Mellon students with ID. To order tickets call the Box Office at 412-268-2407.

W.L. Mellon Speaker Series

Candace S. Matthews (BS/CIT'81), chief marketing officer of Amway, will lecture. 12:30 – 1:20 p.m., Monday, Jan. 24
Mellon Auditorium, Tepper School

Humanities Lecture Series

Riva Kastoryano, director of research at France's Centre National de la Recherche Scientifique, will deliver a talk. 4:30 p.m., Tuesday, Jan. 25
Location to be announced.

James R. Swartz Entrepreneurial Leadership Series

William E. Strickland Jr., CEO, Manchester Bidwell Corp., will lecture. 12:30 – 1:20 p.m., Wednesday, Jan. 26
Posner Hall 152

University Lecture Series

Filmmaker and producer Michael Sheridan 4:30 p.m., Thursday, Jan. 27
Porter Hall 100 (Gregg Hall)
<http://sheridanworks.com/blog/>
See page 12 for more information.

Cross-Campus New Venture Competition

The competition, open to all undergraduate and graduate students, is judged by professional entrepreneurs and venture capitalists. For last year's results and 2011 updates, visit <http://bit.ly/VentureCompetition>. 9 a.m., Friday, Feb. 4
Tepper School of Business

"A Number"

Directed by Lillian DeRitter, the School of Drama performance is part psychological thriller, part scientific speculation and part exploration of the nature and responsibilities of fatherhood in an age when cloning is just as much a part of child-rearing as lullabies and bedtime stories. Feb. 9-11
Helen Wayne Rauh Studio Theater
To order tickets call the Box Office at 412-268-2407.



THE LATINO FAMILY CENTER, 2215 MURRAY AVE., UNVEILED A NEW MURAL IN NOVEMBER THAT CMU'S CENTER FOR THE ARTS IN SOCIETY HELPED CREATE.

Painting for a Dream

■ Shilo Raube

Latino youths shared a dream of a better future for all young immigrants living in Pittsburgh when a new mural was unveiled in November.

The youth group, “Jóvenes Sin Nombres” or Youths Without Names, revealed a mural painted outside of the Latino Family Center, 2215 Murray Ave., titled “Pintando Para un Sueño” or “Painting For a Dream.” The project received support from Carnegie Mellon’s Center for the Arts in Society (CAS) in partnership with the Carnegie Museum of Art and Tavia La Follette, director and founder of ArtUp and the lead artist for the mural project.

Paul Eiss, CAS director and an associate professor of history, said Jóvenes Sin Nombres not only helps to serve the needs of an important community, but also enriches discussions of current social and political issues.

“The group reminds us of the critical

place of the arts in helping to catalyze community organization, education and civic engagement,” Eiss said. “The point is not merely to help to find a voice and a place for new immigrants in Pittsburgh, but also to use the arts to help transform the city itself, beginning with its walls.”

Therese Tardio, a modern language professor, also was involved in the project. First-year students in Eiss and Tardio’s Humanities Scholars Program Seminar interviewed and collaborated with several of the Latino youths in authoring a collection of their life stories, which were distributed at the unveiling.

Jóvenes Sin Nombres was founded in Pittsburgh in 2009 by Michal Friedman and Alfonso Barquera and is composed of young adults between the ages of 15 and 25. The majority of its members are first generation Latinos from Mexico, South America and the Caribbean.

Salute To Success



DAVID TEPPER (TPR’82), FOR WHICH THE TEPPER SCHOOL OF BUSINESS IS NAMED, TOASTS KEN DUNN DURING A RECEPTION IN HONOR OF DUNN’S TENURE AS DEAN OF THE TEPPER SCHOOL. DUNN WILL BE STEPPING DOWN FROM HIS POST ON JAN. 1. DUNN, WHO WAS A CMU PROFESSOR OF FINANCIAL ECONOMICS FROM 1979 THROUGH 1987, WAS NAMED DEAN IN 2002 AT WHAT WAS THEN CALLED THE GRADUATE SCHOOL OF INDUSTRIAL ADMINISTRATION AT CARNEGIE MELLON. DUNN WILL BE THE THIRD-LONGEST SERVING DEAN IN THE BUSINESS SCHOOL’S 61-YEAR HISTORY.

India Partnership Opens Doors

CONTINUED FROM PAGE ONE

in diverse environments. Having a presence in India as their economy grows will give Carnegie Mellon a leadership position in the ongoing internationalization of education,” said Pradeep K. Khosla, dean of the top-ranked College of Engineering.

The partners are well known to each other. The Shiv Nadar Foundation and Carnegie Mellon have worked together on a successful Advanced Software Engineering program, in which students take courses at the SSN campus in Chennai and at Carnegie Mellon’s Pittsburgh campus.

Shiv Nadar, chairman of the Shiv Nadar Foundation, which is committed to global education, said this alliance with Carnegie Mellon offers Indian students “the chance to access the education architecture of a highly renowned, world-class institution right here in India.”

“We believe that this partnership will be transformational for engineering education,” added the philanthropist and founder of HCL Corp. — a \$5.5 billion leading global technology and information technology enterprise.

NEWS BRIEFS

United Way Campaign Wraps Up Dec. 23

It’s not too late to participate in CMU’s United Way campaign to support the social service agencies that help thousands in the Pittsburgh area.

Carnegie Mellon’s 2010 United Way Campaign runs through Dec. 23. Donations can be made online or by downloading paper forms at www.cmu.edu/hr/unitedway.

For more information about CMU’s United Way Campaign, contact Megan Worbs at mworbs@andrew.cmu.edu.

Faculty/Staff Directory Can Be Updated Anytime

Reminder: Faculty and staff can review department and individual information appearing in the faculty/staff directory (<https://www.cmu.edu/hr/directory/index.html>). Changes/edits can be made throughout the year. Quick search tip: When searching individuals (<https://directory.andrew.cmu.edu/services/people/search>) you may use an * as a wild card to search for a partial name. Contact Darlene

Scalese with directory questions at dscalese@andrew.cmu.edu.

Public Notaries Invited To Be Listed in Directory

Human Resources is updating notary public information listed in the online faculty/staff directory. If you are a notary public and willing to provide notary public services free of charge to employees and students for official university business and would like to be included in the directory, please send email to Darlene Scalese at dscalese@andrew.cmu.edu and include your name, department, location and phone number.

Architecture, Industrial Design Rise in Rankings

Recently released Design Intelligence rankings place Carnegie Mellon’s undergraduate Industrial Design Program fourth overall for 2011. The program was No. 4 last year as well. The undergraduate architecture program is ranked seventh overall.

In the industrial design skills assessment category based on an employer survey, Carnegie Mellon’s industrial design graduates are ranked No. 3 for computer applications skills and No. 4 for communication skills.

Tepper Moves Up to No. 15 In Businessweek Rankings

The full-time MBA program at the Tepper School of Business is ranked No. 15, up four spots from Businessweek’s 2008 rankings. Students rate the program with an A+ for analytical skills and teaching. Recruiters rate graduates with an A+ for analytical skills and with an A for general management skills.

One student said: “Tepper offers students a unique curriculum. Before delving into case analysis, students build a strong foundation of analytical techniques that can [help them] solve a wide array of business problems. The curriculum is challenging and requires patience, but it also prepares students to make complex business decisions using innovative solutions that cannot be taught simply by reading a textbook.”

For more on the rankings visit: www.businessweek.com/bschools/special_reports/20101111best_business_schools.htm

BXA Program Adds International Partnership

Carnegie Mellon’s BXA Intercollege Degree Programs has a new international relationship with the Conservatorio di Musica F. A. Bonporti of Trento, Italy, that will broaden the program’s

interdisciplinary artistic experiences. Franco Sciannameo, director and principal faculty of the BXA, led a series of workshops in November in the collaborative “Globus Multimedial International Project Intensive Program” in Trento. Sciannameo discussed his work on Depero’s puppetry ballet “Balli Plastici” created by CMU’s Entertainment Technology Center.

The program is a partnership between BXA and the Conservatorio di Musica F. A. Bonporti of Trento and includes faculty and students from the Conservatorio di Musica F. A. Bonporti of Trento, Béla Bartók Conservatory of Music in Miskolc (Hungary), Conservatorio Superior de Música de Vigo (Spain), and the Universidade do Minho in Braga (Portugal). For more: www.cmu.edu/news/blog/2010/Fall/border-crossings.shtml

Alumna To Run Product Development Program

Alumna Vanessa Sica (A’92) has been named managing director of the Master of Product Development Program (MPD) for engineers and designers seeking to help business and industry focus on innovation and product paradigm shifts. Prior to joining CMU in her current role, Sica was an adjunct faculty member in the School of Design, most recently co-teaching the graduate design studio last spring, a course sponsored by

Students Turn Salvaged Banners Into Artwork

■ Heidi Opdyke

If you like balloons in Macy's Thanksgiving Day parade, you'll love what one class did with old banners and a little Carnegie Mellon spirit.

Students in the Technical Direction III course used salvaged vinyl from banners that used to hang in the Purnell Center to create a large inflatable Scotty dog that was displayed at this year's homecoming.

It's a little different than parade balloons in that it was sustained with a constant stream of cold air, but the skills behind both constructions are similar.

"As people headed off to be technical managers for entertainment operations it seemed like it wasn't too far from the normal stage scenery world to ask these students to grapple a little bit with a large format inflatable, something that has become a staple item for parades and theme parks," said David Boevers, an associate professor of drama and production technology and management option coordinator. "We do what we can here in the School of Drama to expose our students to as many types of projects as possible."

The class did their own research and received instruction from Brian Russman, a costume technology professor, and Tim Kaulen, a CMU staff photographer who has used inflatables in his art exhibitions.

Kaulen, the 2009 Artist of the Year for the Pittsburgh Center for the Arts, has made a number of inflatable sculptures over the years, some of which are on display at the Children's Museum of Pittsburgh. His inflatable, "Stay Puft Marshmallow Girl" was on display this summer at the Mattress Factory and another will be displayed at Pittsburgh's Light up Night.

"The beauty of inflatable shapes is they can happen quickly and be temporary devices," Kaulen said.

"The challenge is in how to make the evolution from making a flat two-dimensional design into a shape that is meant to hold and have volume," Kaulen said.



OLD BANNERS SAW NEW LIFE DURING HOMECOMING WHEN STUDENTS BUILT AN INFLATABLE SCOTTY DOG.

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Green Notes

PennFuture Honors CMU Among Clean Energy Heroes

Earlier this fall, Carnegie Mellon was recognized with a Green Power Award by Citizens for Pennsylvania's Future (PennFuture) for having purchased 87,000 megawatts of wind energy, which was enough to meet 75 percent of the university's electrical needs.

PennFuture is a statewide public interest organization that works to create a future where nature, communities and the economy thrive.

Now in its 11th year, the Penn Future awards recognize individuals and organizations for their work in promoting the clean energy economy in

Pennsylvania each year. PennFuture's Green Power: Turn It On! Campaign is a multifaceted, multiyear campaign aimed at building the renewable energy market in the state.

Tepper Student Recognized For Green Efforts

Chris Gassman (MBA/JD'12), a graduate student at the Tepper School of Business, received a 2010 Net Impact Leadership Award. Net Impact is an international nonprofit organization with a mission to inspire, educate, and equip individuals to use the power of business to create a more socially and environmentally sustainable world.

Along with CMU's Net Impact President Carolyn Madden Duncan (MBA'11), Gassman led a Tepper team

that was named first runner up for Net Impact's 2010 Force of Change Award. Tepper's Sustainable Business was a multi-project initiative with a unifying theme to refine the talent pipeline for sustainable careers. Some examples included partnering with vendors and school administrators to promote healthy living food choices and waste reduction, doing sustainability consulting for domestic companies and creating focus groups for new courses as well as resources for existing courses.

The awards were announced at the 19th annual Net Impact Conference, hosted by the Ross School of Business at the University of Michigan in late October.

For more information on the club, visit www.tepper.cmu.edu/netimpact

In other green news:

CMU will receive 2,800 free recycling bins before the end of the year. The bins, a gift from Alcoa, Keep America Beautiful and the College and University Recycling Coalition, will be distributed to on-campus housing residents. Ten schools received the bins as part of this grant.

RecycleMania, a competition and benchmarking tool for college and university recycling programs to promote waste reduction activities across their campus communities, will be held from Jan. 23- April 2, 2011. For more information on CMU's participation in this program visit www.cmu.edu/greenpractices/campus-recycling/events.html.

Microsoft and Motorola. For more: www.cmu.edu/news/archive/2010/November/nov11_newmpddirector.shtml

CERT® Staff Members Honored by Secret Service

Rich Nolan and Matthew Geiger, two staff members of the CERT® Program, which is part of the Software Engineering Institute, were recently presented with the U.S. Secret Service's Director's Recognition Award for their contributions to the TJX network intrusion investigation, which looked into compromised customer records at T.J. Maxx, Marshall's and other retailers. The Director's Recognition Award is given to corporate or industry individuals or organizations for providing significant assistance to the Secret Service in its investigative or protective mission. Nolan is technical director of the Digital Investigations and Intelligence Directorate (DIID) in the CERT Program, and Geiger is a senior member of the technical staff in the DIID.

DARPA Chooses CMU To Develop Autonomous Capability for "Flying Car"

Recognizing Carnegie Mellon's long history of expertise in autonomous navigation, the Defense Advanced Research Projects Agency

(DARPA) has awarded a 17-month, \$988,000 contract to CMU's Robotics Institute to develop an autonomous flight system for the Transformer (TX) Program, which is exploring the feasibility of a military ground vehicle that could transform into a vertical-take-off-and-landing (VTOL) air vehicle.

The TX vehicle envisioned by DARPA would be capable of transporting four people and 1,000 pounds of payload up to 250 nautical miles, either by land or by air. Its enhanced mobility would increase survivability by making movements less predictable and would make the vehicle suitable for a wide variety of missions, such as scouting, resupply and medical evacuation.

Researcher To Create DVD Aimed at Teens

Abstinence sells, it seems, and more and more teenage girls will be buying, thanks to the work of a Carnegie Mellon social scientist. The U.S. Department of Health and Human Services has awarded Julie Downs a five-year, \$7.4 million grant to create a sequel DVD aimed at reducing risky sexual behavior, sexually transmitted diseases and pregnancies among adolescent females. Downs' first interactive video, "What Could You Do?" was shown to increase abstinence for teenage girls.

ence for teenage girls.

"Our goal is to create a tool that will help teenagers make better decisions for themselves," Downs said. "For the most part they don't want to get pregnant. They definitely don't want to contract a disease. By building on our research about what goes into their decisions, we can craft something that will be exactly what they need to avoid these negative outcomes."

Downs, an assistant research professor of social and decision sciences, studies how social influences affect decision-making and how people can make better decisions by understanding these influences. Her "What Could You Do?" DVD not only resulted in previously sexually active teenage girls choosing to abstain from sex in the future, but it also showed that the behavior changes reduced occurrences of Chlamydia, the most common reportable disease in the U.S.

Bone Tissue Engineering Center Aids Injured Soldiers

Carnegie Mellon's Bone Tissue Engineering Center is working to help soldiers who have lost limbs in combat.

Jeffrey O. Hollinger, director of the center, and University Professor Krzysztof Matyjaszewski

wski have received a three-year, \$2.9 million U.S. Department of Defense research grant to develop a therapy that would aid amputees, specifically wounded soldiers. The therapy aims to prevent bone nodules from forming in the muscle at the site of amputation, a painful condition that makes it difficult for amputees to wear limb prostheses.

"This grant will help us prevent heterotopic ossification at the amputation stumps in military troops wounded in combat. Our work is critical as amputations increase with the current surge in Afghanistan," Hollinger said.

Sophomore Attends NYC String Orchestra Seminar

School of Music sophomore Erica Hudson, violin, has been selected from a national applicant pool to attend the 42nd Annual New York String Orchestra Seminar, conducted by artistic director Jaime Laredo. The program, which is hosted by the New School Concerts Department, will bring 45 string players as well as 18 wind and brass players ages 15-22 to New York City from Dec. 19-28 on full scholarships. Hudson is a student of Violin Professor Cyrus Forough.



LECTURE SPOTLIGHT: DOCUMENTARIAN BRINGS AFGHAN FOCUS TO CAMPUS

■ Ken Walters

Celebrated documentarian Michael Sheridan is bringing his latest project to campus.

Sheridan has traveled the world extensively, producing documentaries about people in crisis in Europe, South Asia, Africa and the Americas. Now the filmmaker is helping provide a voice for individuals on the front lines of hunger and poverty in Afghanistan.

Sheridan is helping a group of Afghan students in creating 10 short films to address, in their perspective, the challenging social and economic conditions that surround them.

Sheridan, the director for Community Supported Film (CSF), will speak about his time in Afghanistan and his past work at 4:30 p.m. on Thursday, Jan. 27 in Gregg Hall (Porter Hall 100)

as part of the University Lecture Series. CSF is a Boston-based organization that works to strengthen the documentary storytelling capacity in countries where disseminating objective and accurate information is essential to internal stability and development and international relations.

Sheridan began crossing the globe in the 1990s, producing documentaries on issues of hunger, poverty and community development for organizations like Oxfam, Save the Children-UK and Bread for the World. He served as Senior Fulbright Scholar in Indonesia teaching and working on new films during the 2007-08 academic year.

“Michael’s work touches on the successes and challenges, the trials and tribulations of economic development as a form of peacekeeping,” said Susanne

WHO: MICHAEL SHERIDAN

WHAT: UNIVERSITY LECTURE SERIES

WHEN: THURSDAY, JAN. 27

WHERE: (GREGG HALL) PORTER HALL 100

ONLINE: WWW.CMU.EDU/ULS

Slavick, the Andrew W. Mellon Professor of Art. “Our military is used to help promote economic development, yet the fusion of economic development and force is problematic in both perception and reality, no matter what our intentions are. His work speaks to that issue.”

Slavick, who met Sheridan at a Blue Mountain Center Residency focused on the “Costs of War,” said his appeal crosses disciplines, including art, public policy, economics, history and international relations.

Sheridan’s work on documentaries has appeared on PBS, The Learning Channel, The Discovery Network and National Geographic TV. He has received awards from The National Education Media Network, the Columbia International Film and Video Festival, the United Nations Association Film Festival and EarthVision for his work. An artist, he has exhibited his work at the Isabella Stewart Gardner Museum, the Boston Cyberarts Festival and GASP Gallery in Boston.

Vali Celebrates Cultural Identity Through Music

■ Kristi Ries

Reza Vali is taking an innovative journey to return to his Iranian roots.

To master Persian music takes 30 to 40 years, Vali said. So, the associate professor of composition at Carnegie Mellon’s School of Music decided to orchestrate a shortcut using computer technology.

To accomplish this, Vali has been developing a computer-driven keyboard instrument called the Arghonoon that is capable of producing the sounds of Persian traditional instruments that also employs Middle Eastern music’s Pythagorean tuning system, allowing the microtones—notes in between those that Western music uses—to be included.

The goal is to take this technology to allow instruments of any culture and tuning system to be digitally retuned and played along with instruments of any other culture, he said.

Vali connected with Roger Dannenberg, professor of computer science, and Dannenberg suggested that Vali team up with Eric Barndollar, then a dual-degree student majoring in music composition and computer science. At the same time, Vali became a research fellow at the STUDIO for Creative Inquiry and with the help of the Studio started to work on his research.

Out of this partnership came the Arghonoon, an instrument that uses a midi interface, laptop and keyboard to reproduce the sounds of traditional Persian instruments such as the santoor (Persian hammer dulcimer) and the

ney (Persian end-blown bamboo flute), as well as the sounds of Western instruments such as woodwinds, brass, strings and percussion.

The Arghonoon is capable of tuning these instruments in precise increments. Dannenberg has served in an integral role as a consultant. Barndollar, who wrote the software program that made the Arghonoon possible, is now employed by Google but remains actively involved with the project. The project is supported by the Studio, which has provided direction in terms of grant seeking, administrating funding and giving helpful suggestions.

Vali presented the Arghonoon at CMU’s Waffle Shop in October as part of its Persian Cultural Festival, which included cultural events and even a featured ‘kubideh’ sandwich at the Waffle Shop’s spin-off project, Conflict Kitchen.

He spoke to attendees — many of whom were Iranian — about the history and the theory of Persian music followed by a demonstration of the Arghonoon. A performance by Santor master of Dariush Saghafi concluded the event.

Many audience members were impressed; a few asked Vali if the instrument was commercially available. His answer? Not yet, but as he moves through the project’s next phases, he plans to copyright the device and its original software.

Vali is well aware that innovation such as the Arghonoon will contribute to the longevity of his country’s cultural identity.



REZA VALI

“Within families, there is now a strong desire to teach children Persian music, in order to preserve it for future generations,” Vali said.

Vali entered Tehran’s prestigious Conservatory of Music at the young

age of 13 to formally begin his musical studies. There, he learned much about Western classical music, yet little about his nation’s own traditional music.

The work of Hungarian composer Béla Bartók, who focused on collecting his country’s folk music, inspired Vali to take inventory and transcribe Iran’s folk music. Vali’s work resulted in composing 16 works for voice and various ensembles. These compositions were collectively called “Folk Songs.” The latest set in the series, “The Being of Love, Folk Songs Set No. 16,” was commissioned by the Pittsburgh Symphony Orchestra (PSO) and premiered in May 2006.

Vali continued the project after leaving Iran to study at Vienna’s Hochschule für Musik und Darstellende Kunst, and then later while pursuing a doctorate in music theory and composition at the University of Pittsburgh.

Salvaged Banners Become Artwork

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The team had about a month to put the project together.

“We came into the project knowing nothing about it,” said Tom Strong, a graduate student in technical direction. “We stumbled across a website that had a pattern for a small stuffed Scotty dog, and David made a first small prototype with garbage bags and tape to see if it would work, and it did. We went on to try different materials and attachment methods as well as trying to develop our own pattern.

“Student schedules and weather conspired to keep the piece inside. That was a little disappointing, but I still think many people got to enjoy it,” Boevers said. Despite the trouble with the weather, the students enjoyed the collaborative process.

“It’s an interesting class, the projects are never the same twice. It takes problem-solving and collaboration to make everything work,” Strong said.