

# THE TARTAN



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## Suresh warns of innovation deficit

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News Editor

Last week, President Subra Suresh joined more than 185 university leaders in signing a letter urging President Obama and Congress to restore federal funding for research and educational purposes.

The effort, which was also supported by the Association of American Universities (AAU) and the Association of Public and Land-grant Universities (APLU), urges the government to close the innovation deficit.

According to the open letter, which is available to read at [innovationdeficit.org](http://innovationdeficit.org), university leaders from schools including Cornell University, Brown University, Boston University, Tulane University, University of California Los Angeles, Case Western Reserve University, Yale University, and Washington University in St. Louis signed the document.

University leaders as well as the AAU and APLU are concerned about cuts to federal investments in research and higher education at a time when other nations are pouring resources into these areas. According to the Innovation Deficit website, "These leaders believe the nation needs sustained investments in research and higher education to develop the ideas, people, and innovations that power the nation's economy... ensuring that the U.S. maintains its role as global leader. They also believe that the growth supported by in-

novation will help the nation address its fiscal challenges."

The letter, addressed to President Obama and members of the 113th Congress, opens by saying that "our nation's role as the world's innovation leader is in serious jeopardy [because of] eroding federal investments in research and higher education [and] additional cuts due to sequestration."

According to the letter, the United States' lack of investment in research coupled with the enormous resources other nations are putting into these areas has created a so-called "innovation deficit."

Ignoring this deficit, the letter says, will have many long-term consequences, including a less skilled work force; fewer research breakthroughs in science and technology based in the U.S.; fewer U.S. patents; and fewer startups, products, and jobs.

While the letter acknowledges that solutions to many of the major governmental issues in the United States are unclear, it is clear "that the nation's fiscal woes must include sustained strategic federal investments in research and student financial aid."

It ends with a call to action, asking the president and Congress to "reject unsound budget cuts and recommit to strong and sustained investments in research and education."

Anthony Rollett, professor of materials science and engineering, both critiqued and praised the letter.

"I definitely think that it's a good, well-written letter and that it is important for

See RESEARCH, A3

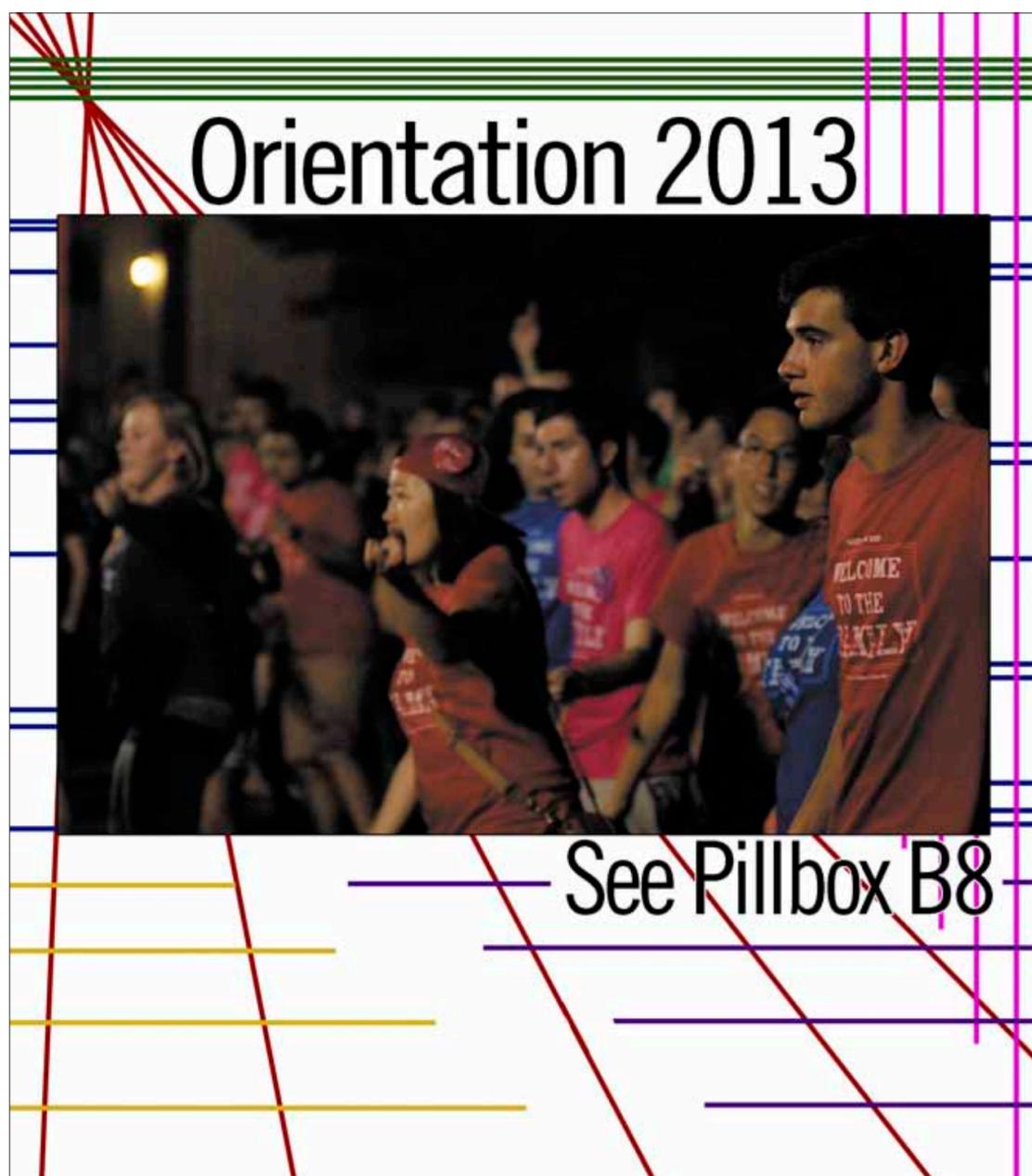


Photo illustration by Kelsey Scott/Operations Manager

## iTunes app available for CMU alerts

BRENT HEARD  
Staffwriter

Carnegie Mellon's division of Environmental Health and Safety released a CMU Alert iPhone application last Tuesday in order to provide students with accessible information and resources during emergency situations. CMU Alert is available through the iTunes store and can be found, with descriptions of its features, at [cmu.edu/alert](http://cmu.edu/alert).

Separate from the existing CMU Alert system that operates by email and phone, the app provides immediate "information on what to do in various emergency situations and how to prevent crimes, [as well as] interactive maps with information on Automatic External Defibrillators (AED) locations and campus bus routes," according to the app's description on iTunes.

Details covered by the app include safety information on

bomb threats, mental health emergencies, shooters, and medical emergencies. The app also contains contact information and automatic dialing for Carnegie Mellon University Police and emergency personnel, as well as maps showing the locations of AEDs.

the project]," Scheimer said. "It wasn't an easy task to bring this about."

"We've been working on the app for over a year, and we're thrilled to have it out," Miller said.

Miller emphasized that CMU Alert is completely sepa-

**"This app is for what to do in the first 10 minutes of an emergency."**

—Madelyn Miller

Director of Environmental Health and Safety

Carnegie Mellon University Police Lieutenant Gary Scheimer said that the application was the brainchild of Madelyn Miller, the director of Environmental Health and Safety.

"[Miller] came to us with the topics relevant to CMU police and we contributed [to

rate from the existing CMU Alert network. "This app is for what to do in the first 10 minutes of an emergency," she said.

"The issues we focused on were scenarios with required immediate action, such as an active shooter or chemical hazard," Scheimer said.

Miller added that Environmental Health and Safety is waiting to hear student feedback on the application, and the division is currently developing a version for Android phones. The iPhone version was created by the mobile application developer DoodleBlue, which released a statement about CMU Alert that said, "Student safety is the top most important priority of schools and colleges. It's important for students to be alarmed and be informed, especially in times like these when crime rates have shot up like nothing seen before."

The naming of the application confused some students as to whether the application was separate from the existing CMU Alert system.

"I think the name of the app may be misleading," said junior business major Grace Pan. "While this is all infor-

See SAFETY, A3



Annette Ko/Art Editor

## Small gives thoughts on environmental impact of fracking

BRIAN TRIMBOLI  
Assistant News Editor

Mitchell Small, H. John Heinz professor of civil and environmental engineering, weighed in on the controversial issue of fracking in a webinar for weekly magazine *Engineering-News Record* last Wednesday.

The webinar, "Oil and Gas Production from Shale, Opportunities & Risks," focused on the challenges and opportunities presented by the relatively new process of natural gas extraction from shale.

According to the webinar's description, "The discovery of vast reserves of natural gas embedded in shale plays across the nation has both trans-

formed the energy debate in the United States and created enormous controversy."

The process of extracting natural gas from shale, known as hydraulic fracturing or fracking, raised concerns in environmental, social, and economic domains. Fracking also presents many opportunities for growth in domestic energy production through the extraction of previously unreachable natural gas deposits.

The description for the webinar explains, "Although the oil and gas reserves in the shale formations represent huge potential to provide a home-grown source of energy, as well as a wide array of construction, engineering

and production jobs, those who work in the industry bear great responsibility to ensure that drilling, extraction, and production of natural gas and oil are done without causing harm to participants or to the environment, particularly the water supply and air quality."

Pam Hunter, associate editor of *Engineering News-Record* for Environmental Issues and moderator of the webinar, said, "The discovery of large oil and natural gas reserves in the United States has changed and transformed the nation's energy landscape. The opportunities for economic growth and stability are enormous, but with the potential of some environmental risks if the proper precautions are not

taken."

Small, who chairs the National Research Council (NRC) panel studying risk management and governance issues in shale gas extraction, summarized the panel's discussions on shale gas extraction and highlighted the potential risks and benefits of the process. Small's research at Carnegie Mellon, according to the webinar description, "spans mathematical modeling and monitoring of environmental systems, uncertainty, and risks."

Small specifically pointed out seven potential problems with fracking, including operational risks, degradation of water and air quality, global climate change, ecological im-

pacts, human health impacts, and social impacts. He cited projections from the U.S. Energy Information Administration that predicted a large increase in the use of natural gas driven by shale extraction over the next 25 to 30 years, while other methods of obtaining natural gas will stay level or even decline. Small discussed the impact that cheaper, more available energy could have in the United States.

His focus was also on fracking's environmental impacts, including on water quality and air quality.

The fracking process can also create methane leakages, which contribute to global climate change.

Fracking presents many

governance issues. According to Small, the industry lacks federal oversight, leaving much of the control in the hands of state and local governments. This has important implications for how the process will affect nearby communities, economically and socially.

"The oil and gas industry is largely exempt from federal environmental regulation.... Most of the action is at the state level, and the question is, how do you have effective coordination between state and local governance, as well as industry self-governance, and what role do local communities, environmental groups,

See FRACKING, A3

FEATURE PHOTO

# Late Night begins semester with bingo



Jonathan Carreon/Contributing Editor

The first Late Night event of the year was bingo in the University Center Kurr Commons. Prizes included apparel and other gifts from the Carnegie Mellon bookstore.

NEWS IN BRIEF

## CMU's OFEF funds five startup companies

Carnegie Mellon University's Open Field Entrepreneurs Fund (OFEF), administered by the Carnegie Mellon University Center for Innovation and Entrepreneurship, awarded \$250,000 to five startup companies.

The fund was established by alumnus and creator of the Flip Video camera Jonathan Kaplan and his wife, Marci Glazer.

The OFEF is designed to provide early-stage financing and support to Carnegie Mellon alumni looking to start their own companies. Twenty-one startups have been given grants from the fund since its June 2012 inception.

"Carnegie Mellon is truly an engine of innovation. This cycle of OFEF includes three companies that arose from faculty and Ph.D. candidate research," said David Mawhinney, co-director of the Carnegie Mellon Center for Innovation and Entrepreneurship and managing director of the OFEF, in a university press release.

"In addition to our outstanding curriculum and world-class research, the continued involvement of our alumni network is something that we are most proud of — people like Jonathan Kaplan, whose generosity and commitment toward

helping the next generation of entrepreneurs has made the OFEF possible," she said.

In the past 15 years, over 300 companies and 9,000 jobs have resulted from Carnegie Mellon's entrepreneurial campus culture. The companies receiving funds this year are Lumator; NetBeez; QuantMD, LLC; ToolsCloud; and Vibrados. "It is exciting to see our young alumni creating such interesting companies," said Lenore Blum, co-director of the Center for Innovation and Entrepreneurship.

"These companies are based on years of cutting-edge research and bring real-world solutions to everyday problems and challenges."

The OFEF provides \$50,000 in matching investment to each recipient. Recipients also gain access to other funding sources, receive personalized mentoring, and attend an annual OFEF business workshop.

Mentors assigned to each recipient will include select Carnegie Mellon alumni who have themselves been successful entrepreneurs, having helped to create over \$1 billion in shareholder value.

Mentors will also include entrepreneurs based at Carnegie Mellon, such as Mawhinney.

# Greek organizations host social barbecue



Kate Groschner/Photo Editor

Carnegie Mellon's Greek organizations hosted a barbecue on the Greek Quadrangle Sunday afternoon. The barbecue was designed as an introduction to campus Greek life for first-year students and others interested in joining a fraternity or sorority.

## CMU researcher wins engineering prize

Kaushik Dayal, an associate professor in the mechanics group of Carnegie Mellon's civil and environmental engineering department, recently won the Leonardo Da Vinci Award from the American Society of Civil Engineers.

Dayal received the award for his research on the interactions between materials and electromagnetism that has potential applications for energy storage and generation.

"I'm delighted to receive this recognition of our research into the behavior of electromechanical and electrochemical materials at the nanoscale," Dayal said in a university press release.

Dayal is looking to create smaller batteries with higher energy density and faster recharge times than those currently on the market.

Dayal's research focuses on energy storage, which could have important applications for intermittent power sources like solar energy, which is produced during the day but not at nighttime.

Dayal's research is funded by the Army Research Office,

the Air Force Office of Scientific Research, and the National Science Foundation.

"This is great recognition for an innovative researcher who is making important contributions to [the] modeling of materials critical to renewable energy systems and other technologies," David A. Dzombak, head of the department of civil and environmental engineering, said in a university press release.

The Leonardo Da Vinci award was established in 2011 and recognizes young researchers early in their careers for promising developments within the field of engineering mechanics and mechanical sciences with specific relevance to civil engineering.

In 2012, Dayal received the Army Research Office Young Investigator Award, the Air Force Office of Scientific Research Young Investigator Prize, the National Science Foundation Career Award, and the Eshelby Mechanics' Award for Young Faculty.

Compiled by  
**BRIAN TRIMBOLI**

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If you would like to submit a correction or clarification, please email The Tartan at [news@thetartan.org](mailto:news@thetartan.org) or [editor@thetartan.org](mailto:editor@thetartan.org) with your inquiry, as well as the date of the issue and the name of the article. We will print the correction or clarification in the next print issue and publish it online.



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Kol Nidre	September 13,	7:00 pm
Yom Kippur	September 14,	4:00pm
Succot	Friday, September 20,	7:30pm

# CMU helps digitize Pittsburgh Jewish newspaper archives

**ALVIN MATHEW**  
Staffwriter

A movement started in recent years to digitize documents from the past in order to preserve an area's history.

Lending its efforts to secure local history, Carnegie Mellon contributed to the digitizing of Jewish newspapers through the Pittsburgh Jewish Newspaper Project. The project contains a digital archive of various Jewish newspapers in the Pittsburgh area, some dating

to more than 100 years ago.

The official website of the Pittsburgh Jewish Newspaper Project explains that the archive contains various Jewish publications, including the *Jewish Criterion*, the *American Jewish Outlook*, the *Jewish Chronicle*, and a weekly publication by the Young Men and Women's Hebrew Association of Pittsburgh.

Head of archives and digital library initiatives Gabrielle Michalek spearheaded the six-year long project.

According to an article in the *Jewish Chronicle*, the Pittsburgh Jewish Newspaper Project is "a digital archive documenting daily life in the Pittsburgh Jewish community from 1895 to the present."

Joy Braunstein, director of the Holocaust Center of the Jewish Federation of Greater Pittsburgh, said, "I think it's phenomenal, and I'm glad that someone is taking the initiative to do this. I think it will be an interesting and valuable resource, from the academic

perspective ... to laypeople or individuals who want to look at the history."

"I know that they're doing this as a digital resource, which is fantastic so that people can go online and look at it, and I'm incredibly supportive. If you are a graduate student, you would find this to be absolutely invaluable. Same for someone doing their own genealogy, by looking at their family's history and people searching for their family's wedding dates," Braunstein

added.

According to its website, the Pittsburgh Jewish Newspaper Project is a collaboration between Carnegie Mellon University Libraries, the Rodef Shalom Congregation Archives, the Rauh Jewish Archives at the Senator John Heinz History Center, and the *Jewish Chronicle* of Pittsburgh.

"The Jewish newspapers in Pittsburgh cover not just local events but regional, national and international news over a long period of time," Rodef

Shalom archivist Martha Berg said in an interview with the *Jewish Chronicle*.

"They really give a wonderful depiction over time of a community as it grew and changed, and they're very valuable to have."

The project was aided by contributions from the Jewish Federation of Greater Pittsburgh, the Philip Chosky Charitable Educational Foundation, and donations to Carnegie Mellon in memory of Henry Posner Jr.

## CMU Alert app provides easy safety emergency information



Photo illustration by Kelsey Scott/Operations Manager

**SAFETY**, from A1

mation that can be found on CMU websites, it is helpful that it is in a centralized location and it is more accessible."

Further student reaction to the development of the new application is mixed but hopeful.

Sophomore economics and math double major Ben Zhang likes the idea of the safety application, but said he could envision future problems with it. "I just see two

main issues with it: getting people to install the app and getting people to not delete the app," he said.

"I feel like it would be useful, but I'm kind of the person that says, 'Well, I won't use it frequently, and I'm going to assume the advice they give is pretty much common sense'" Zhang added.

Junior computer science major Mindy Pile said, "It sounds like a pretty great idea, especially since most people don't know how to

handle certain natural disasters or deal with in an emergency medical situation."

Pile did mention some possible improvements. "How useful it is also depends on how easy it is to navigate. Having the emergency numbers and CMU police numbers listed front and center would be a good thing."

Environmental Health and Safety personnel are asking students to continue providing feedback on the application and its features.

## Research seeks federal funding

**RESEARCH**, from A1

the academic community to speak up. I also agree with the general idea that the real damage is to long-term competitiveness. For example, we are leaders in large machines like accelerators, synchrotrons and free electron lasers (that have very large populations of users) but this

won't last without continuing investment," said Rollett via email.

Rollett also said that he "wish[ed] the letter had put more emphasis on the cuts restricting the pipeline of highly trained people."

Sophomore creative writing major Kaytie Nielson believes that further government-funded research could

have both positive and negative repercussions.

Nielson, who is a Fulbright Summer Institute Participant, said, "More funding for research would be great. But like with corporate funding of university research, dependence upon government funding might cause the research to respond to particular politically motivated interests."

## Talk illuminates fracking risks

**FRACKING**, from A1

et cetera play in the overall process?" Small asked.

Fracking also carries possible benefits.

It has a smaller carbon footprint than traditional coal, meaning that substituting natural gas from shale extraction for coal produces fewer greenhouse gas emissions. Small also summarized his personal viewpoints in two workshops hosted by the NRC panel.

The first panel was on the risks of unconventional shale gas development, while the second focused on governance risks of unconven-

tional shale development, or the regulation issues created by shale development and its current lack of oversight.

Small stressed that the committees were not meant to reach an absolute consensus, and that they comprise members' separate opinions.

On his slide about the first workshop, Small wrote that "to build [a] scientific knowledge base and trust, [there is a] need for coordinated collection and sharing of data to characterize background pre-development conditions, operations, human and ecological exposures and effects, and economic and social impacts on nearby communities."

The second workshop, Small said, included discussions of the existing capacity to meet governance challenges, shale gas governance in other federal systems, and the potential roles of non governmental entities in fracking governance.

After Small, the webinar included talks from Andy Shea, industrial sector director of the Resources Business Group, and Sunil Kommineni, national practice leader in water treatment at water and infrastructure consulting and management company ARCADIS.

The event was sponsored by United Rentals.

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# Science & Technology

## Researchers take on complicated privacy policies

**BROOKE KUEI**

*Assistant SciTech Editor*

How does Amazon know what deals will catch your interest? How does Facebook know what ads to show you? Most people are unaware of the fact that websites collect information about us all the time. “A fundamental aspect of privacy is that people are supposed to have control over what happens to their information,” said Norman Sadeh, a Carnegie Mellon professor of computer science. He is the leader of the Usable Privacy Policy Project, a 42-month, \$3.75-million project sponsored by the National Science Foundation whose goal is to improve internet privacy.

The research team working on this project includes Lorrie Cranor, associate professor of computer science and engineering and public policy; Alessandro Acquisti, associate professor of information technology and public policy; Travis Breaux, assistant professor of computer science; Aleecia McDonald, director of privacy at Stanford University’s Center for Internet and Society; and Joel Reidenberg, a Fordham University law professor.

Websites are supposed to inform users when they collect information. These privacy policies should answer consumer questions about how and for what purpose they collect user information, and

with whom the information will be shared. Every major website should have a privacy policy that can be easily found there.

But some question the accessibility of these policies. “It’s easily accessible if accessing means being able to get to the page, but it’s not easily accessible if access is supposed to also include the ability to quickly digest the text and make sense of it,” said Sadeh. The problem is that many privacy policies are not only extremely lengthy — averaging five to seven pages in length — but also very complex and difficult for a layperson to understand. In fact, a 2008 study conducted by Cranor and McDonald estimated it would take 200 to 300 hours for a person to read privacy policies for every website they visited in a year.

Another study conducted at Carnegie Mellon tested people’s comprehension of privacy policies. After reading a range of policies, individuals were asked very simple comprehension questions, such as if the website collects email addresses or shares information to third parties. Although these questions are supposed to be answered clearly in privacy policies, 50 percent of the people who read them could not answer these questions correctly.

In the past, some people have tried to force standard-

ized formats, such as presenting policies in the form of multiple choice questions or yes/no answers that could easily convey to their users what type of information the website collects. Another attempt was to encourage websites to write privacy policies in machine-readable language. However, these endeavors have been met with a lot of pushback from the companies who write these policies.

The Usable Privacy Policy Project team has been studying new methods of making privacy policies more transparent for consumers. One such method involves the modeling of people’s privacy preferences. “We’ve shown through research over the past few years that even though people care about privacy, they don’t actually care about everything these privacy policies talk about. They only care about a relatively small number of factors,” Sadeh said. So it turns out that there are just a few things in these policies that need to be highlighted in order to convey the information consumers care about most.

Another direction that this group is taking is combining machine learning with crowdsourcing. The machine-learning aspect involves using computer programs that can detect patterns of text within privacy policies in order to extract information from them.



Photo Illustration by Kelsey Scott/Operations Manager

Along with the contributions from crowdworkers, machine learning can ensure that privacy policies will be understood on a large scale. This information can then be presented to consumers in the form of user interfaces or browser add-ons that can rate the safety of websites with color codes or letter grades — almost like a nutrition label.

Privacy engineering is becoming an increasingly important field, particularly because people who write privacy policy tend to be lawyers, while people who build the products tend to be software engineers. Carnegie Mellon is launching a new master’s degree program in privacy engineering.

“The long-term hope is that when information becomes

more easy to digest, companies will realize they have to be more aware of their privacy policies,” Sadeh said. The researchers hope that, at some point, companies will even start competing with each other and using safer privacy policies to set them apart from other companies, ultimately improving privacy on the web.

### HOW THINGS WORK

## How preservation keeps your food bacteria-free

**NIHARIKA SINGH**

*Staffwriter*

Incoming first-years always receive a ton of advice: go to office hours, make new friends, try out new restaurants. Among these pieces of advice is one that warns students that hot plates and other similar cooking appliances are not allowed in dorm rooms; they’re fire hazards. Stripped of these cooking appliances, many students turn to preserved foods in their quest for a rejuvenating midnight snack. Humans have been preserving food for hundreds of years to ensure they would have stores of food in tough conditions like famines (and finals week).

The purpose of food preservation is to ensure that bacteria do not reproduce. When bacteria multiply in food, they release waste that causes the food to look, smell, feel and taste bad. Certain pathogens can also cause the spoiled food to become toxic. According to Arimi Foods, the same bacteria that cause food to spoil also thrive in warm temperatures in the range of room temperature to 104°F. This is why one of the most common methods of preserving foods is refrigeration. The cold temperatures present inside a fridge slow down the reproduction of bacteria. Kept

this way, most foods tend to last for about a week.

However, temperature can be lowered further to keep food safe for longer. The freezer, which uses below-freezing temperatures to store food, keeping it fresh for months. Since water is no longer available to the bacteria, they are not able to grow or react chemically with foods.

Canning is another way to preserve foods. This can take the form of produce canned at home, or factory canned food available in supermarkets. In both cases, the food is heated to kill bacteria present at the beginning of the canning process. Afterwards, the food is put into an airtight container and sealed, preventing new bacteria from entering the food. Foods preserved this way can keep for several months.

Canning also has the additional advantage of not requiring the energy needed to maintain a low temperature continuously, like in refrigeration and freezing. For this reason, canned foods are popular in disaster-relief kits and emergency kits, as they can keep for a long time and be consumed in situations where power is not readily available.

Yet another popular food preservation technique is drying. This technique works because drying food removes

all moisture, which bacteria need to grow and react with foods. An advantage to drying is that dried foods take up less space to store than food preserved by other means, says the College of Agriculture, Consumer, and Environmental Sciences at the University of Illinois. However, drying changes the taste and appearance of foods unlike other forms of food preservation. To dry food, [www.dryit.com](http://www.dryit.com) explains, it is placed where warm dry air can move past it continuously. This warm air absorbs the moisture from the food and carries it away, thus dehydrating the food. Dried foods are often further vacuum sealed to keep them safe for longer. According to [fantes.com](http://fantes.com), vacuum sealing ensures that the foods don’t come into contact with oxygen. Without oxygen, oxidation of the food cannot take place. Furthermore, bacteria cannot thrive in a vacuum.

Food is an essential human need, and human ingenuity lets people have food even when it is not readily available in its natural form. So while incoming freshmen might not be able to prepare their favorite meals in the comfort of their rooms, they will be able to snack on a variety of preserved foods.

Or they could just order pizza.



Courtesy of Wikimedia Commons

A food dehydrator can be used to create dried foods, such as mangoes and papayas.

### SCITECH BRIEFS

#### Astronomers discover distant blue planet

A deep azure-blue planet has been discovered orbiting a star 63 light years away; this is the first time astronomers have been able to determine the color of a planet outside our solar system. The feat was accomplished using Hubble’s Space Telescope to measure how much light was reflected off the surface of the planet before, during, and after it passed the star that it orbits.

Other features of the planet include having a daytime temperature of 2,000°F, wind gusts up to 4,500 mph, and raining liquid glass. It is also 2.9 million miles away from its planet star — 10 times closer than Mercury is to our sun. The planet is classified as a “hot Jupiter,” a planet similar in size to a gas giant but close to its parent star.

Source: CNN

#### Scientists produce edible meat from cow shoulder cells

The future of food has taken a new direction with the invention of lab-grown meat. Mark Post, a Dutch researcher from the University of Maastricht, has pioneered a way of growing meat using stem cells (cells that can differentiate into tissue-specific cells) from cow shoulder muscle. The cells were multiplied in a nutrient solution and put in petri dishes, where they grew into muscle cells and formed strips of muscle fiber, a process which was developed through a \$325,000 project.

A five-ounce burger was made from 20,000 strips of fiber, breadcrumbs, salt, and some natural colorings. While the lab-grown burger received subpar ratings in its taste test, it has introduced the idea of cultured meat to the world.

Source: *The New York Times*

#### Robot uses slime to express different set of emotions

Ella Gale, a researcher at the University of the West of England in Bristol and the Bristol Robotics Laboratory, has discovered a way of using slime mold to give emotions to robots’ faces. Slime mold, although unicellular, is able to find the quickest path to food and has even shown signs of having memory.

Gale has developed a way of expressing emotions on a human-like robot face by hooking up the robot face so that its expressions are controlled by electrical signals. These signals are produced when slime mold shies away from light or moves towards food. Because slime mold produces electrical signals as it moves across electrodes, Gale and her team were able to assign different emotions to different signals.

Source: *New Scientist*

#### Researchers look into evolution of the X chromosome

The X chromosome has typically been considered the “female” chromosome, and the Y the “male.” This would suggest that since the second X chromosome in females is disabled, its evolution was slowed down and its genes would be similar in most mammals.

However, recent studies show that it is not only the Y chromosome that contains the genes responsible for sex determination, male development, and male fertility. Rather, the X chromosome has been found to contain genes that are only active in tissue that is destined to become sperm. After sequencing human and mice X chromosomes, geneticists discovered that there are a lot of unshared genes between the human X and mouse X, indicating that the X chromosome may have undergone evolution.

Source: *Wired*

#### Live tissue and organs produced by 3-D printers

3-D printing has gained increasing popularity in the past few years, with 3-D printers for the home recently becoming feasible. However, the newest breakthrough in this form of manufacturing technology is the 3-D printing of live tissue. Researchers at Hangzhou Dianzi University in China have developed the Regenovo 3-D printer.

Regenovo prints living tissue — in particular, it has successfully printed small human ears. Several months ago, a team at Cornell University were also successful in the 3-D printing of ears. At Organovo in San Diego, researchers are working on 3-D printing of fresh human livers. The development of these kinds of technologies may revolutionize the world of biomedical engineering, facilitating surgeries such as organ transplants and making them more personalized.

Source: *New Scientist*

#### Dolphins respond to unique sounds of their own ‘name’

It is a well-known fact that dolphins communicate with each other with clicks and whistles. However, a new observation has been made: Dolphins actually respond selectively to signature whistles, the same way a human being would respond to someone calling their name. This finding is one of the first examples of naming in mammals and suggests that there is a parallel between dolphin and human communication.

Biologists recorded signature whistles and played them, along with computer-synthesized distortions of them, through a hydrophone in Scotland’s eastern coast. The wild bottlenose dolphins ignored unfamiliar whistles while whistling back to their own signature whistles.

Source: *Science Daily*

Compiled By  
**BROOKE KUEI**

# Scientists make discovery in field of synthetic biology

**MICHAEL SETZER**  
SciTech Editor

When moving through a bustling crowd, you probably think about how much more efficiently you could get to your destination if you were the only one there. While this train of thought might make sense with regards to daily life, researchers at Carnegie Mellon have found that crowding within a cell may actually increase its efficiency.

The study was led by Cheemeng Tan, a Lane Postdoctoral Fellow and a Branco Weiss Fellow in the Lane Center for Computational Biology. The research team also included Russell Schwartz, professor of biological sciences; Philip LeDuc, professor of mechanical engineering and biological sciences; Marcel Bruchez, associate professor of biological sciences and chemistry; and Saumya Saurabh, a doctoral student in chemistry. Their article was published in the journal *Nature Nanotechnology*.

With hopes to offer new therapeutic treatments for disease and new energy sources in the form of biofuels, the field of synthetic biology could have a huge impact in the

fields of medicine and technology. Although the field is about big solutions, researchers are beginning to look very small. Tan and his team specifically looked at the effects of molecular crowding on gene expression in cells.

In the field of synthetic biology, scientists have been trying to create synthetic cells. These cells are pieces of technology that act similarly to the cells within our body but whose genomes — the blueprint for all cellular mechanisms and development — are entirely created in a laboratory. The point of creating these systems is to minimize the information present in a cell. For example, if a researcher wanted to know the effects of a cancer drug on one particular protein, the cell would only include the genetic information needed for that protein and basic cellular function. These artificial cells, however, lack a phenomenon common in most living cells: molecular crowding.

Molecular crowding refers to the density of macromolecules in a cell. Living cells are filled with these molecules, which can refer to carbohydrates, proteins, and nucleic

acids — all the stuff needed for a cell to function to properly. Scientists in the field of synthetic biology are unsure if crowding can enhance the gene expression in a cell. In other words, having more stuff in a cell may create faster circuits to turn on and off certain genes. Tan and his group wanted to see if molecular crowding does in fact have an effect on gene expression, which is the process of activating a certain gene to encode a protein.

In their experiments, the researchers utilized a bacteriophage — a special kind of virus that infects bacteria — called T7. The researchers manipulated the molecular crowding in the phage and then studied the impact on the expression of a particular gene. They accomplished this by using different sizes and densities of inert polymers in environments similar to the artificial cells. Larger, denser polymers were meant to mimic a crowded environment. Inert polymers are made up of multiple subunits and are nonreactive.

The results showed that molecular crowding does indeed improve the robustness of gene expression in living



Courtesy of davehwng via flickr

A bacteriophage, shown above, is a kind of virus that infects bacteria. Tan and his team utilized the bacteriophage T7 in their experiments on molecular crowding.

cells. More efficient gene expression occurred in the trials with the larger polymers. Furthermore, the group found other ways to increase the efficiency of gene expression by changing the concentration of certain ions in their experiment.

The group's study provided new information that may help bioengineers develop better synthetic systems that include effects similar to molecular crowding. "Our findings underscore how scientists could harness functioning

mechanisms of natural cells to their advantage to control these synthetic cellular systems, as well as in hybrid systems that combine synthetic materials and natural cells," Tan said in a university press release.

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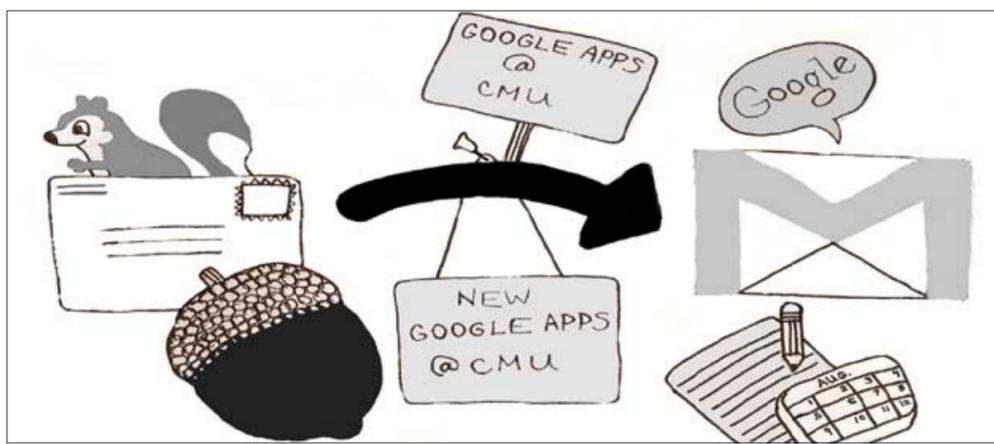
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# Forum

FROM THE EDITORIAL BOARD



## Move from Webmail server must be better publicized

Carnegie Mellon Computing Services is officially transitioning all undergraduate student email services to Google Apps this fall. New students received this service on Aug. 16, while upperclass students will transition from the existing SquirrelMail this weekend. The Computing Services website states that as part of this change students will have email, calendar, and document services available through Google, in addition to 30 gigabytes of digital storage. Students will be able to log in to this service using their Andrew ID and password, and there are numerous scheduled times during which Computing Services will be available to answer questions.

Moving to Google Apps is an excellent decision by the university, but it must be heavily advertised to the student body before the transition occurs. Currently, only one email

about transition support was sent to the entire campus community, reminding students to empty their trash and spam folders to ensure a smooth transition.

Many other institutions now use Google to host their mail, and many Carnegie Mellon students have personal Gmail addresses and forward their Andrew email to these accounts. While the update to SquirrelMail at the beginning of the previous school year was a marked improvement, it has become clear that an application provider like Google is far more effective at providing reliable, easy-to-use mail services. Through this transition, students also gain the use of services such as Google Calendar and Google Docs to collaborate and work with others, in addition to the extra storage space.

In order to better publicize this move, Computing Services must

make students aware of the in-depth documentation it has on its website concerning the move. The documentation covers topics like login information, mobile device setup, and frequently asked questions. This information, or the link to the website, should also be dispersed through email and placed in prominent locations on campus for students to view.

If Computing Services does not publicize the move to Google Apps well before the transition occurs for upperclassmen, students could encounter technical problems that they are not prepared for. More importantly, they could lose correspondence that they left unattended in SquirrelMail.

The confusion that students may encounter once the move occurs could be avoided if all students are explicitly aware of the changes and of all Google programs available.

## LinkedIn University Pages offer little new information

In an attempt to reach a younger audience, LinkedIn recently created University Pages — official profiles for universities on LinkedIn. Through the website, users will have access to a database of 200 university profiles — with more to come — on LinkedIn. These profiles will include information about alumni, such as where they work and which companies recruit them after graduation. The university will be able to post updates, and prospective students will have the option to ask students, staff, and alumni questions about the university.

University Pages is a great aggregator for pooling information about alumni, but these pages bring little new information that students can research online when looking at prospective schools.

Students may be able to

get college information from a well-regarded professional website, but this information is often already provided on university websites or unofficial channels like College Confidential. LinkedIn does offer information about which companies alumni are hired by in one location. However, the types of companies that alumni join is also often found through sources like *U.S. News & World Report* and individual college websites through information about popular majors, although specific company names may not be mentioned. Some colleges, such as Carnegie Mellon, release lists of top employment companies.

Admittedly, University Pages is valuable for the connections that students can form with members of campus communities. The pages could provide a hub for students to

get to know staff and professors on campus before visiting. It may not help students to connect with other students, though, as most students already use Facebook groups or chatrooms to make these initial connections if they choose to do so online.

Like any social networking website, LinkedIn will only gain traffic if it has users who determine that the website has invaluable content. With many websites already established that provide similar information, LinkedIn may have trouble attracting and, more importantly, keeping the younger user base it is trying to reach through University Pages.

LinkedIn's new University Pages does a solid job at aggregating information about colleges and universities, but the pages do not provide information unique enough to attract the new users it targets.

## Obama's outlined college goals need more definition

The cost of college has skyrocketed over the past few years. According to President Barack Obama during a speech at the University of Buffalo last Thursday, tuition rates at four-year public colleges have risen by more than 250 percent over a span of 30 years, and the average student graduates with over \$26,000 of debt.

In response to the increased cost of education, Obama proposed a plan during his speech for making college more affordable. His three goals include creating a new rating system for colleges based on opportunity; getting colleges to provide new economical methods for education; and making debt more manageable.

While Obama's goals are admirable, his changes needed more concrete explanations during his speech to show that the proposed sweeping reforms can be implemented with ease.

Throughout his speech, Obama provided clear goals for providing more affordable education and even pointed to innovative ideas that universities are enacting, including Carnegie Mellon's initiative to help students master material online at lower costs.

With tuition costs of \$46,670 for incoming students, Carnegie Mellon's student body that pays a lot for its education. Suggestions for lowering this cost for incoming students would no doubt be well received.

A more in-depth explanation of each goal would have made Obama's plans seem more attainable. His plan for creating a new rating system was also explained broadly, with a tentative launch date of 2015 for the system. However, there was little word on the progress for a new rating system beyond the appointment of Secretary of Education Arne Duncan to lead the initiative. Obama spoke of

incentives for schools to create new ways of learning at a more affordable rate, but did not provide specifics on how these incentives would be enforced or implemented.

Additionally, Obama spoke about advertising an already-existing method for paying loans called the Pay As You Earn plan to encourage students to take advantage of it, but offered little more in terms of new ways to help students pay loans.

The goals presented in Obama's speech will most likely positively impact students looking toward higher education, but only if these goals translate into action.

Without these specifically detailed actions, Obama's speech seems premature; it would have been more effective if he had discussed current government action toward encouraging schools to be innovative when making education more affordable.

## Please don't write me any more love songs

ELI ZOGHLIN  
Junior Staffwriter

Songwriters who are stumped while writing a pop hit — or maybe a dance jam to rock the club scene — seem to do what so many have done in the past: Write a love song. From medieval odes to anything on Taylor Swift's latest album *Red*, we've been writing love songs for a long time.

There's nothing wrong with the musical world's history of writing about love. Love is a complicated and deep emotion that can inspire great songwriting. It seems these days, though, that so many artists just fill an entire album with love songs, be they lamentations or glorifications. Having a few love songs on an album is understandable — love is a central part of the human experience. But is there nothing else in this great and beautiful world to write about? People have been writing love songs since they've been writing songs, and there certainly doesn't need to be another album full of them.

As a writer myself, I can see the temptation that songwriters have to write love songs. Love is a powerful emotion and one of the few intimate experiences that can be commonly understood. That common understanding means that it is much easier for a songwriter to spark a moment of connection with an audience, something I think of as a good goal for any song. However, some artists — Taylor Swift comes

to mind again — abuse the easy connection that a love song grants and use it to pump out cookie-cutter hits. Writing about an emotion also lends itself to abstraction. Listening to an album with 12 songs full of abstractions leaves me dissatisfied and mindlessly humming the one catchy song on the album. It doesn't leave me with anything to think about or give me an appreciation for the originality of the writing.

We should not stop writing about love. It is too important an emotion, and I'm sure people will continue to find original things to say about love for a long time. All I ask is that songwriters branch out and not retreat into abstractions about love. Instead, they must write songs that touch on the full gamut of emotions and experiences that life offers. Listeners should be told a story or impressed by clever wordplay.

### All I ask is that songwriters branch out and not retreat into abstractions about love.

Songwriters, follow the lead of Sara Bareilles: Don't write me a love song. Explore the scope of human nature and emotions in your songwriting, and paint a more complete picture of the world we live in with your lyrics.

## U.S. cannot stop aiding Egypt during crackdown

Chloe E Thompson

CHLOE THOMPSON

Violent military crackdowns against protesters in Egypt last week called into question the continuation of U.S. military aid to the country. The protesters, rallied by the Muslim Brotherhood, support recently ousted president Mohamed Morsi. According to Amnesty International, over 1,000 people have been killed in these crackdowns.

The U.S. supplies \$1.5 billion in military aid to Egypt annually. Given the recent atrocities, critics are calling for that aid to be immediately suspended. However, the situation in Egypt is both extremely complex and deeply delicate, and the military aid is not as simple as it seems.

The U.S. is not simply handing Egypt money; Egypt is part of the Foreign Military Financing program (FMF). More than 70 countries are part of this program, including Israel, Pakistan, and Colombia. Countries involved in the FMF are given certain funds that can only be used to purchase military equipment, and only from American contractors. Egypt does have a remarkable amount of freedom within this system, but it is not the only one; Israel enjoys a similar liberty. Once Egypt orders a shipment of military equipment, U.S. contractors build it and send it. However, the U.S. can block or suspend shipments. While the U.S. has not officially cut aid, they have suspended the delivery of Egypt's military orders indefinitely. By delaying the delivery of military equipment, the U.S. can protest the

actions of the Egyptian military, without losing the leverage in the Middle East that aid provides.

Admittedly, that leverage is tenuous at best. Other nations, including Saudi Arabia, have indicated that they would supply military aid if the U.S. suspended it, according to CNN. But the current agreement with Egypt is long standing and dates back to the Camp David Accords, peace talks between Israel and Egypt that the U.S. hosted in 1978. This historical precedent does not mean that the U.S. has to aid Egypt, but it means that the situation in the Middle East has a foundation in established policies. U.S. condemnation of the recent actions of the Egyptian military would impact relationships between Middle Eastern nations in unpredictable ways. The U.S. also receives privileged access through military aid to the Suez Canal, which is both economically important and key for maintaining a foothold in the Middle East.

The Egyptian military's violent behavior is unconscionable, and if the issue of aid were only a question of morality, then the United States should withdraw that support. However, the issue is more complex, and involves the stability of an entire region. The U.S. chose to involve itself in an extremely complex situation, and that commitment cannot be reversed easily. Withdrawing support from Egypt would most certainly lead to more violence and further chaos, but ostensibly maintaining that support while undercutting it in subtle ways has the potential to curtail the Egyptian military without destabilizing the Middle East.

Chloe Thompson (cet@) is a staffwriter for *The Tartan*.

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## Videotape training won't cause change



XIYU WANG

Recently, Allegheny County district attorney Stephen Zappala announced that Pittsburgh police will take refresher training regarding when citizens are allowed to videotape the force, according to the *Pittsburgh Post-Gazette*. This program appears to have been prompted by recent incidents in Pittsburgh and across the nation regarding police officers' responses to citizens videotaping them in public.

It is unlikely, however, that this refresher course alone — without any punitive measures for police officers who stray from the guidelines — will solve a problem that is nationwide in scope: Police harassing people who have videotaped them.

In a time when everyone has a cell phone and an eagerness to document every aspect of their lives, it is no wonder that recordings of police encounters have become more frequent since the 1990s, when the videotaped beating of Rodney King stirred riots and national controversy. Although no video has created the same level of uproar these days, police often react negatively and sometimes even forcibly when they realize people are taping them.

For instance, Anthony Graber, a Maryland Air National Guard staff sergeant, put up a video on YouTube of an encounter with a state trooper in which the trooper cut Graber off in an unmarked vehicle and yelled at him while holding a gun in plain clothes, according to *Time* magazine. In response, the police searched Graber's home, arrested him, and charged him with wiretapping. There have also been other instances where police officers have arrested or harassed citizens who videotaped them.

It is important to note that in these cases, the police were recorded in a public space, where there is little expectation of privacy. If any other citizen had been recorded in these

spaces, it would be very unlikely that the person behind the camera would have been arrested and charged with wiretapping.

There are some instances in which there is a legitimate need to keep aspects of police work private. For instance, in a drug bust against a gang, police who are identified can become targets of that gang.

However, police are often caught on camera in everyday situations that have been horribly mishandled. For example, in one viral YouTube video, a New York Police Department officer is seen shoving a bicyclist to the ground. The officer, who claimed the bicyclist collided into him, was thrown off the force. In these cases, amateur videos can serve to check police power.

The harsh police response to instances of videotaping serves to protect the force's image. Perhaps these responses are done in part to minimize hostility toward their respective departments. It makes one wonder, then, how truly effective a tactic of intimidation and harassment would be to this end. More

disturbing, however, is the implication that the police are abusing their power as protectors of the public to cover their own tracks when they act improperly.

In other aspects, videotapes have been a boon for law enforcement due to their value as evidence in investigations and trials. Video recordings have often been used to find lawbreakers, such as the Boston bomber from last April.

Police often react apprehensively to amateur videos when it is their own wrongful actions that have been caught on camera. There have been some small attempts — from both courts and municipal governments — to protect the rights of citizens videotaping police, but not much action has been taken in response. The Allegheny County district attorney's statement may not be enough to prevent cases in which police harass people who tape them, but it is a sign that this problem is becoming increasingly recognized.

Xiyu Wang (xiyuw@) is a staffwriter for *The Tartan*.



Annette Ko/Art Editor

## Cut-throat attitude hurts intern health irreparably



WILLIAM PARK

Undergraduates all over the world will return from summer jobs, research fellowships, and internships this week. One summer intern, however, will not.

Moritz Erhardt, a 21-year-old finance intern at the London Bank of America Merrill Lynch, was found dead in his London apartment on Aug. 15. The cause of his death is currently unknown, but Erhardt reportedly worked 72 hours straight without sleep, according to Reuters.

Finance internships are as competitive to get as they are demanding. According to *The Guardian*, a fellow intern of Erhardt said that interns typically worked 15 hours a day. Some interns often voluntarily work overtime — working long hours, they believe, is the surest way to impress their bosses and receive a job offer with a starting salary approaching six figures.

No one explicitly told Erhardt that he had to abandon three days of sleep — but while finance interns can benefit from their hard work, no one benefits more from interns' zealotry and ambitiousness than the financial institutions employing them. If their interns want to work overtime, why stop them?

Such a mentality does little to change their greedy reputation. In a 2012 poll conducted by the Pew Research Center, only 22 percent of American respondents had a positive view on banks.

To many, it isn't surprising that banks would abuse customers or take advantage of the law, but to take advantage of one's own workers is going too far. Yet, what will they do? Expecting major financial institutions to change their treatment of interns out of a moral regret would be comical.

Although the indifference of Er-

hardt's supervisors is certainly deplorable, his death ultimately comes down to his willingness to work 72 hours straight.

The most impactful change must occur not at the top, but at the bottom. Finance interns may not be able to change the exploitative culture of their chosen field, but they can change how willing they are to succumb to its pressures. Although there is a high-paying job that interns are more or less auditioning for, there should be a limit to the sacrifices they are willing to pay for their future.

This sentiment is not only applicable to finance interns but to many young adults. As employers still find themselves cash-strapped from the global recession, they want to hire fewer employees who are versatile and want to work more hours. In a March article in *The New York Times* titled "The No-Limits Job" on the topic of demanding entry-level jobs, a media manager said, "We need to hire a 22-22-22," referring to a 22-year-old willing to work 22 hours a day for \$22,000 a year.

Thus, many college graduates and undergraduates take demanding internships and entry-level jobs in the hopes of securing better jobs in the future. Lucrative, high-paying jobs don't grow on trees, and while working hard is often a requirement of securing that goal, there is a limit.

While a distant golden apple may justify the sacrifices interns and entry-level employees make, there may be — in extreme cases like Erhardt's — no future at all. Moreover, there's always another golden apple — some current unobtainable that can be reached with sacrifices made in the present: a higher position, a bigger house, or a faster car.

The journey to success is not always comfortable, but one's health should never be compromised. One must be healthy to enjoy the fruits of his or her labor.

William Park (wkp@) is assistant Forum editor for *The Tartan*.

## Panic buttons serve as worthy alternatives to armed educators



BRADEN KELNER

In the aftermath of the tragic shooting at Sandy Hook Elementary School in Newtown, Conn., many American schools increased security. According to *The Wall Street Journal*, over 400 schools across the country recently installed permanent panic buttons behind desks or placed mobile buttons in the hands of school administrators. These buttons can alert authorities or security companies, send text messages to staff, or sound school alarms in the event of an emergency. The West Vine Street School in Stonington, Conn. recently installed a panic button system that will even automatically close doors in the school, according to Stonington local newspaper *The Day*.

The need for increased security was reaffirmed last Tuesday, when

20-year-old Michael Hill entered Ronald E. McNair Discovery Learning Academy in Atlanta, Ga. with firearms. It is likely that he would have caused harm had a staff member not talked him out of his deadly intentions. While panic buttons may not offer the same protection as the armed guards that many have suggested, these devices are a more economically feasible and less controversial form of student protection.

According to *The Wall Street Journal*, panic buttons can be installed in schools for \$300 to \$800 each. The system placed recently in the West Vine Street School, which lies about 75 miles from Newtown, cost \$10,000 and includes buttons in classrooms, according to *The Day*. In contrast, the median pay for an individual police officer is \$55,010 annually, the Bureau of Labor Statistics found. Based on these costs, hiring armed guards may cost school districts over \$45,000 more than the initial installation of panic buttons. Hiring more than one guard per school dramati-

cally increases that price difference. Although there are operating costs associated with panic buttons, their total cost is much less than the cost of hiring armed officers. For example, panic buttons installed in six schools and two administrative buildings in Apache Junction, Ariz. will have an annual operating cost of only \$4,000 a year on top of their initial cost, according to ABC15 Arizona.

The introduction of panic buttons may be a welcome alternative to armed guards in a country where cash-strapped schools are abundant; the Center on Budget and Policy Priorities found that 37 states provided less funding for the 2011–12 academic year than they did for the 2010–11 academic year. While guards may provide more visible protection than panic buttons, many school districts may not be able to justify the cost of guards compared to the lower cost of panic buttons.

The visible presence of armed guards may even have detrimental effects on students. A study by the

Youth & Society journal conducted in 2011 found that armed guards on school premises made some students feel less safe. While the presence of armed guards on elementary school grounds may provide reassurance for parents and community members, the constant visible reminder of possible threats may be harmful to some students' psychological well-being, whereas the less obtrusive nature of panic buttons would help the devices go generally unnoticed by students.

Many have suggested that teachers, rather than officers, should be equipped with firearms, but this solution also has problems. A report by the School Improvement Network conducted in January found that about 7,720 of 10,661 teachers — 72.4 percent — said they would be unlikely to bring a firearm to school if they could. Teachers themselves must be comfortable carrying firearms if they are going to be armed. Even if they were comfortable, educators would also have to learn how to properly use these firearms and complete

further training as security measures change over time. Some teachers have completed training courses that lasted as little as six hours, according to the *Daily Mail*. This small amount of training will not prepare teachers to properly handle their weapons during an emergency situation. Panic buttons are not dangerous weapons and do not require extensive training, making them a viable solution for security this fall. It must also be noted that it was a staff member who was able to relate to others, and not armed personnel, who stopped the would-be shooter in Atlanta.

Admittedly, panic buttons may not provide the same level of first-line protection as armed personnel. However, they are a relatively uncontroversial method of security that can be implemented quickly and inexpensively to give elementary-school educators another defense in their arsenal for ensuring child safety.

Braden Kelner (bik@) is Forum editor for *The Tartan*.

## A PERSON'S OPINION

Compiled by Kate Groschner

The Tartan is excited to see a new class joining the campus community this week. So we asked,

### What was your favorite part of Orientation?



**Chelsea Kwong**  
ChemE  
First-year

"My RA at our first floor meeting."



**Nick Zuniga**  
Biology & Psychology  
Senior

"Getting lost exploring downtown Pittsburgh."



**Barbara Samaniego**  
Economics & Statistics  
First-year

"Pittsburgh Connections trip — white-water rafting."



**Jimmy Petka**  
ChemE  
Junior

"Meeting the awesome people in Boss 3."



**Yu Wu**  
ECE  
Senior

"Meeting my new classmates was really exciting."

# Sports

## A Tartan Guide: Athletic Activities at Carnegie Mellon University

### Club Sports



Club Sports, as defined by Carnegie Mellon's athletic department, are programs that compete at a "non-Varsity intercollegiate athletic" level and have "formalized group instruction."

For additional contact information on these organizations, visit <http://athletics.cmu.edu/recreation/clubs>.

### Additional Sports Activities

#### CMU Quidditch Club

By combining dodge ball, flag football, wrestling, and more (while holding a broomstick), a "muggle version" of quidditch was created.

Contact: [cmuquidditchclub@gmail.com](mailto:cmuquidditchclub@gmail.com)

#### CMU Sport Taekwondo Club

Interested in learning self-defense? This Carnegie Mellon club meets in the Skibo Gym Arena to provide students with a safe and fun environment to learn martial arts.

Contact/Info: [aspark@andrew.cmu.edu](mailto:aspark@andrew.cmu.edu)

#### Sweepstakes/Buggy

A tradition unique to Carnegie Mellon, students can join different organizations to compete in a yearly race where small people are used as batons and passed to a finish line.

Contact/Info: <http://cmubuggy.org/>

#### Longboarders Club

A recently founded organization, Longboarders Club seeks to educate Carnegie Mellon students on the art and beauty of longboarding.

Contact: [ebcho@andrew.cmu.edu](mailto:ebcho@andrew.cmu.edu)

#### Swing Dancers Anonymous

At Swing Dancers Anonymous, students can learn, practice, and teach swing dancing without fear of having to perform on stage.

Contact: [info@chickenswing.com](mailto:info@chickenswing.com)

#### Tartan Parkour

Ever wanted to learn how to scale walls and jump great distances? Tartan Parkour provides students with the opportunity to learn how to maneuver around obstacles in such a manner.

Contact/Info: [efurnish@andrew.cmu.edu](mailto:efurnish@andrew.cmu.edu) or [samsmith@andrew.cmu.edu](mailto:samsmith@andrew.cmu.edu)

Additional Sports Activities consist of other student organizations that embark in athletic activities and endeavors. For more information and a complete list of all athletic groups, visit <https://stugov.andrew.cmu.edu/orgtracker/categories/sports-martial-arts>.

Compiled by Jonathan Carreon/Contributing Editor and Kelsey Scott/Operations Manager

## Women's golf team created

JOSH SMITH  
Editor-in-Chief

It was announced late spring semester 2013 that Carnegie Mellon will be developing the school's first ever women's golf team for the 2013-14 academic year. The women's golf team will initially start out as a club team, tentatively participating at the intercollegiate level by the 2014-15 season. Director of athletics Susan Bassett is excited for the addition of the program to Carnegie Mellon's roster of intercollegiate and club sports. "Women's golf is an emerging sport within the NCAA and Division III and we are thrilled to offer additional opportunities for women to compete at the college level," Bassett said in a Carnegie Mellon Athletics press release.

Interim director of athletics, physical education, and recreation Josh Centor announced on Aug. 12 that Ladies Professional Golf Association (LPGA) veteran Missie Berteotti will take the position of women's varsity golf head coach, according to a Carnegie Mellon Athletics press release. Berteotti, a Pittsburgh native, performed in the LPGA for 14 years, was a 1984 NCAA champion with the University of Miami, a two-time Pennsylvania state champion, and is the author of *The Mental Mastery Program*, an instruction manual for golf and life. "I am very excited to help develop the first women's golf team at Carnegie Mellon University and be affiliated with this great university," Berteotti said in a press release.

Student athletes interested in joining the women's golf team should



Kate Groschner/Photo Editor

### SPORTS COMMENTARY

## Steelers team evolves, strives for improvement

CARL GLAZER  
Staffwriter

Last season was a rough one for the Pittsburgh Steelers. The team went 8-8 and missed the playoffs for the third time since quarterback Ben Roethlisberger's rookie season in 2004. As expected, the Steelers made several off-season moves to get the team back to its winning ways. Nearly every position on the team experienced major changes in an effort to improve.

Big Ben is still firmly entrenched as the starter, but his backups have changed quite dramatically. Bruce Gradkowski spent the last two seasons in Cincinnati backing up Andy Dalton. While Gradkowski hasn't started a game since his 2010 season with the Oakland Raiders, he represents a big upgrade over the combination of 38-year-old Charlie Batch and injury-prone Byron Leftwich. The Steelers also drafted University of Oklahoma quarterback Landry Jones. With both Roethlisberger and Gradkowski in their 30s, the Steelers wanted a young quarterback

to follow the veterans. Hopefully Gradkowski and Landry don't see the field this season, but with Roethlisberger having not started a full season since 2008, they will likely be called on at some point.

Last year, running back Rashard Mendenhall was rehabbing a torn ACL suffered during the regular season finale of the 2011 campaign. He missed the first six games of the season and was quickly injured and out again until November. By that time, backups Isaac Redman and Jonathan Dwyer had combined to deliver a solid game even while battling injuries of their own. Due to Mendenhall's displeasure with being replaced, the team let him leave in free agency and drafted Le'Veon Bell in the second round.

Unfortunately, the Pittsburgh running backs have been bit by the injury bug again, with Redman and Bell out. To compensate, the Steelers picked up LaRod Stephens-Howling to be the third down back and traded for former Dallas Cowboys first-round pick Felix Jones, who had been

training with the Philadelphia Eagles.

The Steelers are currently without both their top wide out and tight end from last season. They lost wide receiver Mike Wallace through restricted free agency to the Miami Dolphins, leaving Emmanuel Sanders and Antonio Brown to pick up the slack. Plaxico Burress was hoping to make a contribution as the third receiver, but a torn rotator cuff has knocked him out for at least the season. Tight end Heath Miller has been injured for most of training camp but is due to return sometime in September. Until then, former Chicago Bear starter Matt Spaeth and last year's seventh-round pick David Paulson will fill in.

The main difference between this year's offensive line and last season's is health. The same five linemen starting this year would have been starters last year if not for injury. Left guard Ramon Foster and center Maurkice Pouncey were the only healthy starters for the majority of last season. Second-year right guard David DeCastro missed most of

his rookie season with an injured right knee, second-year left tackle Mike Adams missed time with an ankle injury, and third-year right tackle Marcus Gilbert missed time with a severe ankle injury. This group of guys should give Big Ben the best protection he's had in a while, if they remain healthy.

The defensive line was one of the few consistent positions for the Steelers, with only nose tackle Casey Hampton leaving from last year's main rotation. Pittsburgh is counting on Steve McLendon to fill Hampton's very large shoes. Defensive ends Ziggy Hood, Brett Keisel, and Cameron Heyward are all returning and hoping to build on one of the few bright spots left from last season.

The Steelers' linebacking corps has been one of the strengths in recent years. Arguably their best outside linebacker, James Harrison, left this off-season after declining performance. He signed with division rival Cincinnati and is trying to revive his career. Otherwise, the Steelers still have a great group of linebackers with LaMarr Woodley, Larry Foote,

Lawrence Timmons, and Jason Worilds. The only real worry for Pittsburgh is keeping these veterans healthy since their only comparable backup is rookie Jarvis Jones.

Similar to the linebacker position, the Steelers didn't lose much in their secondary. The main loss was backup safety Will Allen to the Cowboys. Otherwise, Pittsburgh just benefited from getting starting corner Ike Taylor and nickel corner Curtis Brown back from season-ending injuries. Going forward, this position could turn from a strength to a weakness with perennial Pro Bowler Troy Polamalu nearing the end of his career and Taylor turning 34 next off-season. There isn't much depth at either position, but Ryan Mundy was picked up from the New York Giants this off-season to try and ease the transition.

Overall, most of the Steelers' roster changes are on the offensive side of the ball, with the defense hoping to bounce back after an injury-filled season. But the defense is aging and each year comes closer and closer losing their edge.

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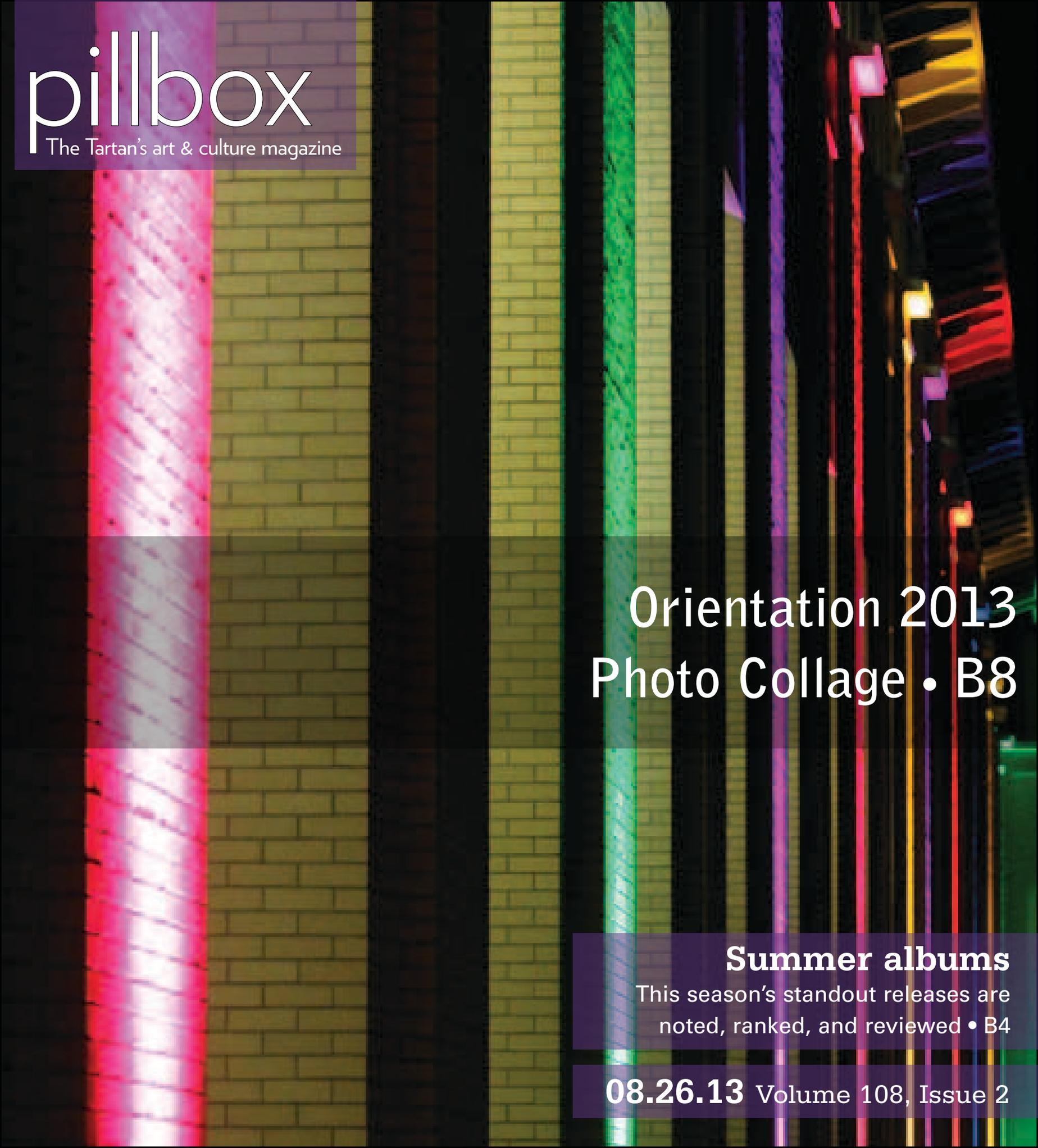
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**pillbox**  
The Tartan's art & culture magazine

# Orientation 2013 Photo Collage • B8

## **Summer albums**

This season's standout releases are noted, ranked, and reviewed • B4

**08.26.13** Volume 108, Issue 2

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# Obsidian is dark, depraved

Morbid lyrics characterize electronic musician's new album

There's something very sumptuous about death and decay when Baths sings about it. Then again, everything sung by the electronic musician (real name Will Wiesenfeld) in his jaw-dropping falsetto is like an aural dessert. On *Obsidian*, it's served up with existential angst and homoerotic imagery — and it's delicious.

Perhaps “angst” and “imagery” are understatements. The first lines of the album, on “Worsening” — a track that manages to simultaneously cleanse the soul and tear it asunder — are, “Birth was like a fat, black tongue/dripping tar and dung and dye/slowly into my shivering eyes.” That's not angst. That's downright macabre.

Also, homoerotic imagery would imply a degree of subtlety, of poetic nuance involved in the telling. The chorus from one of the most catchy tracks, “No Eyes,” goes like this: “And it isn't a matter of/if you need it/But it is only a matter of/come and f\*\*\* me.”

Putting the two tracks together, you get “No Past Lives”: “Lodged in the rectal wall of agony/hell is our only home.” Kinda heavy, right? But Baths somehow makes it easy to listen to.

Needless to say, Wiesenfeld grew bold for *Obsidian*. The flowery and nearly indecipherable language of his debut studio album, *Cerulean* — as hauntingly beautiful as it was — now seems like it was a wall for him to hide behind. Now, his falsetto is unfiltered,



Courtesy of calebdrostphoto via Flickr

soaring and gorgeous, but he can do luscious soundscapes to accompany it better than ever. “Ironworks” and “Worsening” are proof of that.

The downright cruelty and forthrightness in some of the tracks can be jarring, especially if you listen to *Cerulean* first; there's no sign of it there. “Incompatible” shows just how acerbic Baths can be. He spends the song neglecting and castigating his “first boyfriend”: “On nights you roll over and introduce yourself/I am elsewhere,” he croons; “Fascinating, terrible, you stupid idling mind/I could prod your hurt all night.” What a nice guy.

“I was never poetic, and never kind,” he says in “Incompatible.” Well, the latter might be true, but his masterful lyrics invalidate the first.

Wiesenfeld's voice breaks away from beauty only a couple times, and they make for some of the most powerful moments on *Obsidian*. Near the end of “Incompatible,” he filters his voice briefly to sounds like he's screaming, and in “No Past Lives,” he actually does scream out the word “lodged,” as if it were a war cry. In “Earth Death,” though, he sings at nearly full voice, and you can feel that it's just on the cusp of turning into something vile sounding — and it's all the more entrancing for it.

Right around the time he was supposed to start making the album, Wiesenfeld got E. coli. According to *Pitchfork*, he spent weeks unable to do anything but sleep, go to the bathroom, and play *Skyrim*. The frustration and helplessness he felt during that time undoubtedly aided in creating *Obsidian*'s lyrics and soundscape. Perhaps they were even the driving force.

Listening to *Obsidian* is like meeting up with a stranger in a park at night and having the best sex of your life. It's dirty, sensual, and incredibly frightening. After a while, though, you become accustomed to the darkness. You become resigned to the fact that your soul is just as unsalvageable as everyone else's, that deep down you really do want this. And you transform into a creature of the night.

**Evan Kahn** | Copy Manager

Electronic musician Will Wiesenfeld, better known by his stage name Baths, somehow makes macabre lyrics sound beautiful in his new release, *Obsidian*.

## Advice for awkward people

About making an impression and body snatching

Dear Patrick,

**It's the first day of class, and I want to make a good impression on all my friends and these new people. How do I prove to everyone I became totally cool over the summer and am not the same dorky dweeb I was at the end of spring?**

Thanks,  
**Goals Of This Time Approaches: Become Excellently Fantastic, Require Encores, Seriously Hawt**

Dear GOTTA BE FRESH,

The best way to show the masses you have reinvented yourself is to change your look in numerous drastic ways. If you had hair in the spring, shave it all off. Grow a beard (even if it's patchy), and if you can make designs with it you absolutely should. Change up your wardrobe: start wearing vests, get new shirts with sassy phrases or topical or ironic logos on them, put on as many accessories as your body can support, and be sure to include a hat. I recommend top hats, but the Carnegie Mellon go-to is the fedora.

You should not, under any circumstances, ignore your craving for self-definition and instead try to be the best person you can be. You should not try to hold engaging conversations to get to know someone better. And you should absolutely not embrace yourself for who you are.

**Embrace the quirky side, Ryan “Definitely Patrick Hoskins” Black**

Dear “Patrick,”

**I thought you graduated? How is it that this column is still running? ARE YOU REALLY PATRICK??**

Thanks,  
**Incredulously Nagging, Very Attentive Seeker In/Of Nearly Official Freelance Thespians, Has EveryBody Overtly Digging, Yet Sure Nihilistic Aliens Trample Creative Humans, Earning Required Supplies**

Dear INVASION OF THE BODY SNATCHERS,

I can assure you that, though the original author of this column is no longer writing it, good hands have picked it up and will continue this great piece of periodical advisement for at least a while. I cannot promise a perfect transition, and I cannot promise the same quality or type of responses Patrick gave, but I will attempt to keep the spirit of Advice going.

I'm definitely not an alien stealing Patrick's literary body in preparation for a hostile takeover in the coming months. Definitely not.

**You'll be the first to go, Ryan “Apparently Not Patrick Hoskins” Black**

Need advice? Send queries to [advice@thetartan.org](mailto:advice@thetartan.org).

# Summer 2013 produces solid releases

Standout works include albums by Braids, Julia Holter, Washed Out, and Zola Jesus

## Washed Out – *Paracosm*

When talking about summer music, there's no better place to start than with Ernest Greene, better known by his stage name, Washed Out. With his early EPs, *High Times* and *Life of Leisure*, Greene set himself up as chillwave's poster boy, and four years later, his aesthetic remains much the same on this month's release, *Paracosm*.

On *Paracosm*, Greene adds new textures to his already layered, reverb-laden sound, with birds chirping in the opening track and sounds of laughter and clapping later in the album. The album also has a greater focus on percussion, a refreshing change from 2011's *Within and Without*. Standout tracks from the new album include "It All Feels Right," the album's first single; "All I Know," which spotlights an upbeat positivity that is sometimes missing from Greene's nostalgic sound; and "Paracosm," a swirling track that makes it easy to forget the world around you.

Although he doesn't push any boundaries with this one, Greene produced yet another solid summer soundtrack that will certainly come in handy when we need a gentle reminder that everything will be okay. *Rating: 3.5/5*

## Julia Holter – *Loud City Song*

*Loud City Song* is the first album that singer and multi-instrumentalist Julia Holter recorded primarily in a studio with an ensemble of other musicians; most of her first two were recorded alone in her bedroom. The studio setup worked well for her, as the album shows a willingness to experiment with complex sounds, textures, and layers that was missing from her last release (2012's *Ekstasis*).



Courtesy of subpop.com

It's hard to pick out the best tracks on this album.

With swirling buildups that drop quickly to beautiful moments of stillness, *Loud City Song* fades seamlessly into the changing tides of daily life. Songs like "Hello Stranger" (a beautiful cover of Barbara Lewis' 1963 R&B hit) and "This Is a True Heart" embody a quiet, cabaret vibe — while "Maxim's II" builds into a wild, sinister mix of horns, drums, strings, and Holter's own haunting whisper.

There's a lot to say about every track on this album, and the intricacies of Holter's work reveal themselves only through many close listens. Generally, though, it seems that with this release, Holter has created what is simultaneously her most interesting and most accessible album to date. *Rating: 4.5/5*

## Braids – *Flourish // Perish*

Montreal-based art pop group Braids took a boldly electronic approach this year, and *Flourish // Perish* shows the band finding its footing in a new world of electronic instrumentation.

Although there are points on the album where it feels empty without the guitars that were so prominent on the group's debut, *Native Speaker*, the electronic backing forces the group to rely on singer Raphaelle Standell-Preston's vocals for the main melodies. The singer seems to respond well to this challenge, maintaining her signature playful vocals throughout the album. Lyrically, the songs remain as evocative as ever, and even the sillier lyrics — in "Hossak," Preston sings, "A boy is knocking at my window with a slice of pizza and acid in his tum tum" — have a poignant dreaminess to them.

In some ways Braids's sophomore album doesn't live up to its 2011 debut, but when Braids is at its best on this album, it's at its best ever: The harrowing depth of the latter half of the track "Together" and the buildup of the closing song "In Kind" reward the listener for waiting through the slower sections and show that the group has not lost its driving sound. *Rating: 4/5*

## Other notable releases

### Zola Jesus – *Versions*

As the title suggests, all of the songs on this album (except one) are new versions of previously released Zola Jesus tracks. For this release, Nika Roza Danilova (Zola Jesus) — who performed at Carnegie Mellon in April —

Washed Out's *Paracosm* is a richly layered, refreshing album.



Courtesy of braidsmusic.com

Braids' *Flourish // Perish* experiments with bold electronic instrumentation.

teamed up with a string quartet to rework the tracks, and while the strings are an interesting addition, they would make more sense on new compositions.

The one new song on the album, "Fall Back," demonstrates this perfectly: The song is a fantastic crescendo of strings and drums that builds up to an emotional and moving climax. Danilova's voice is as beautiful and powerful as ever, but many of the songs featured here — including "Seekir" and "Vessel" — were better the first time around. *Rating: 3/5*

### Edward Sharpe & the Magnetic Zeros – *Edward Sharpe & the Magnetic Zeros*

The Los Angeles-based group's self-titled third EP offers little that is new or surprising, but the upbeat folk tunes are still nice for a sunny day in Schenley Park. The lyrics and love-above-all-else vibes feel shallow at times, and nothing on this album lives up to past anthems like 2009's "Home," but if you need something for the background, this'll do. *Rating: 2/5*

### Julianna Barwick – *Nepenthe*

Julianna Barwick — who performed at The Underground in April 2012 — has created another beautifully layered and looped album this year. The singer-songwriter expands her scope here, and allows for a wider range of emotions to come through on the deeply personal tracks. *Rating: 4/5*

Allison Cosby | Staffwriter

# Museum visitors travel the *Roads of Arabia*

Carnegie Museum of Natural History's newest exhibit explores elusive history of Saudi Arabia

Walking into the *Roads of Arabia* exhibit at the Carnegie Museum of Natural History is like walking into a graveyard: There's a sudden, silencing chill that momentarily takes you off guard. Standing at the entrance are three solitary stone figurines, their human faces inscrutable, the light casting their long, eerie shadows across the floor.

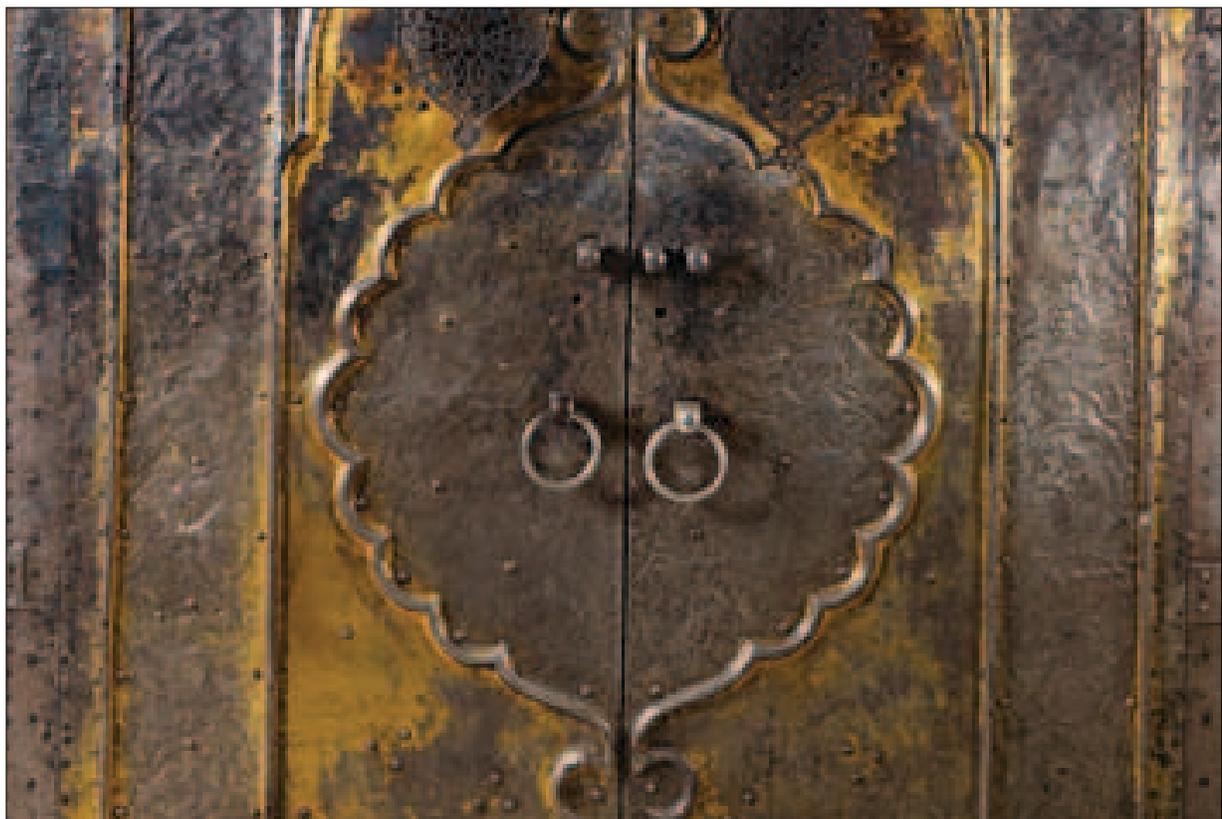
As the description on a far wall explains, these 6,000-year-old anthropomorphic steles were most likely used for religious or burial purposes. Striking as they are, the steles comprise only a small part of the rich array of rare artifacts used to illustrate the fascinating and elusive history of Saudi Arabia.

As it turns out, *Roads of Arabia* is an apt title for the exhibit: Saudi Arabia's history is mapped out in roads, which first transported incense for trade and later carried pilgrims journeying to Mecca. Viewers get to brush up on their Arabian history (or start from scratch) with an introductory video — the most useful, yet most easily overlooked, part of the exhibit. Tucked away in a dark, hidden room, the video vividly and poetically explains the human element behind the artifacts and connects the dots between objects and dates that on their own can lose their context.

Though every object in the exhibit is stunning in its own right, a few stand out for their sheer “wow” factor. In a far room of the exhibit stand three larger-than-life Lihyanite statues with human faces and bodies degraded by the elements, somewhat reminiscent of classic Egyptian sphinxes. Aside from their size, there's something sublime about being in such close proximity to ancient objects.



Courtesy of the Carnegie Museum of Natural History, the Smithsonian's Museums of Asian Art, and the National Museum, Riyadh.



Courtesy of the Carnegie Museum of Natural History, the Smithsonian's Museums of Asian Art, and the National Museum, Riyadh.

These silver-gilded wooden doors stood at the entrance to the Ka'ba, a monument to Islam supposedly established by the prophet Muhammad when he conquered Mecca in 630 CE.

Despite the majesty of the statues, the most unquestionably stunning pieces are the tombstones from the al-Ma'la cemetery in Mecca. The stones are arranged in rows that emulate a graveyard, creating an air of hushed solemnity as viewers walk from one stone to the other, reading the intricate inscriptions on the markers.

At the end of this short detour, viewers find themselves standing before a formidable set of faded purple, silver-gilded double doors, flanked by a giant pair of golden candlesticks. These massive doors once guarded the entrance to the Ka'ba — Arabic for “the cube” — one of the most sacred sites in Islam, located in the heart of Mecca.

Incredible as they are, these artifacts wouldn't be half as impressive without the wealth of information the exhibit provides. Between informational videos and labels, *Roads of Arabia* does an excellent job of

This 6,000-year-old anthropomorphic stele, which most likely served religious or burial functions, is one of three that stands at the entrance to the *Roads of Arabia* exhibit.

supplementing the objects on display with rich, meaningful context. Viewers quickly learn that this is not your typical exhibit of prehistoric tools and stone carvings, but rather an exhibit of objects that became instrumental in reshaping archaeologists' understanding of the Arab region.

In this way, *Roads of Arabia* truly takes the road motif to heart. From beginning to end, viewers sense they are on a journey of sorts; after all, in an exhibit covering a region that saw so much travel across history, it makes sense for viewers to undergo experiences similar to those the exhibit explores — at least on a symbolic level. Though not strictly chronological, *Roads of Arabia* moves fluidly through history, enabling viewers to transport across time in an enclosed physical space. Visitors to *Roads of Arabia* may not be able to help but feel as if they are retracing the footsteps of long-dead Arabians as they walk through the exhibit.

**Rachel Cohen** | Pillbox Editor

*Roads of Arabia* will be on view at the Carnegie Museum of Natural History through Nov. 3.

# Comedy show fuses two different styles

First-years favor Rabinowitz's self-deprecating humor over Barnett's race-centric comedy

This year's Orientation comedy show, presented by AB Comedy last Friday, featured two different styles of comedy by two accomplished comedians.

The first half of the show featured Josh Rabinowitz. Rabinowitz's career in stand-up comedy began in Philadelphia while he was attending the University of Pennsylvania; he now lives in New York City. Since then he has been named one of Comedy Central's 2011 Comics to Watch, and has performed in various comedy festivals.

Rabinowitz's awkwardness and shortcomings drove his comedy. He found humor in the sad mediocrity of his existence and in his friends' often trivial problems, spiced with occasional forays into absurd topics. Rabinowitz was much like a college-age Louis C.K., especially when he opened up about his flaws and insecurities.

Rabinowitz led with a story about his own college orientation, in which he was constantly one-upped by everyone in his group during an icebreaker. Rabinowitz then delved further into his personal failings, recounting how he forced a scientist into an awkward conversation during which he mentioned that he had gone to McDonald's. This statement prompted the scientist to respond, "Did you get food there?"

He talked about how his hairy chest leads girls who take off his shirt to look betrayed: "I have the face of a 14-year-old and the body of a 58-year-old. I'm like a collage of the least sexy moments in a man's life."

Rabinowitz also mused on the concept of "coolness": He recalled what was considered cool in elementary school, where Lunchables instantly made you friends and Capri Sun was the vodka of the playground.

Other highlights of his act included stories of a friend who humped a microwaved sandwich bag, of generational differences in dating culture, and of men's sexual preferences.

Rabinowitz ended his performance with an epic tale of how he prank called his alcoholic hockey-player friend and meowed at him while on the toilet, blaming the act on another friend of his. After three painstaking months of keeping this up, he was discovered because he forgot to use a fake name for the Gmail account from which he had sent the prank email.

The second half of the show featured Kevin Barnett, another New York City comic. Like Rabinowitz, Barnett has appeared in various comedy festivals and films, as well as on Comedy Central, MTV, and *CollegeHumor.com*. He also co-hosts a podcast and created a viral video sensation called "Homo Thugs."



Jonathan Carreon | Contributing Editor



Jonathan Carreon | Contributing Editor

**Above Left:** Josh Rabinowitz charmed first-years with his self-deprecating approach to comedy.  
**Above Right:** Kevin Barnett addressed issues of racism and homophobia during his sketch.

Barnett's style of comedy had more bravado than Rabinowitz's; his humor was more about his wins than his losses. Some of his humor revolved around racism and the African-American experience. His comedy had a faster pace, and consisted of a few long narratives interspersed with one-liners that segued into one another.

Barnett began with a story from his college years, when his friends slipped ecstasy into his drink despite his objections. "What kind of a person crumbles drugs into another person's drink? A good friend, that's who!" Barnett exclaimed, recounting how he had a wonderful night after taking the drugs.

Barnett then went on to topics such as free time, the misuse of slang, and the stupidity of children — including stories about stupid kids he had overheard on a train, the joys of farting in a little girl's face, and the satisfaction of insulting 10-year-olds on Xbox Live.

Barnett's jokes about racism included a story about how, while shopping for costumes for a costume party, he wanted to buy a wolverine costume that unfortunately had fake claws with white knuckles. He talked about his dream of running through a meadow with long flowing hair "like a white person."

Barnett also talked about "the n-word" and its power to make things more serious when added to the end of a sentence. At one point, Barnett asked a white member of the audience to use the word in a sentence, which she did with a great deal of hesitation.

Racist or homophobic friends comprised another common theme in Barnett's comedy. The highlight of Barnett's performance was his account of one his pranks, which left his homophobic friend Brandon believing he (Brandon) had performed a sexual act on a man.

Barnett also discussed his romantic life: "Girls think that I'm a weirdo creep. I just think it's more entertaining to creep them out and scare them than to have sex with them." He ended his act with a description of his ridiculous OkCupid online dating profile.

At the end of the show, the audience seemed to favor Rabinowitz's misadventures over Barnett's comedy. "We thought it was really funny," said first-year saxophone performance major Laurel Beatty, who came to the show with first-year mechanical engineering major Hope Dohner. "I especially liked the first one [Rabinowitz]."

"My favorite story was the 'meow' one," Dohner added, referring to Rabinowitz's last story.

Some people seemed uncomfortable with a few of Barnett's race-based jokes. "The first guy [Rabinowitz] was really good. The second guy's jokes seemed a bit racist," said first-year Bachelor of Humanities and Arts student Marianthie Wank.

Regardless of who was the better comic, the show was very much a success, providing a number of light-hearted laughs after the intensity of House Wars.

**Xiyu Wang** | Staffwriter

# Rogue Legacy tests, torments its players

Summer video game release presents a serious challenge, even for experienced gamers

It's been a long summer. Or at least, that's what people have told me. I haven't really noticed myself, because the universe of video games has been expanding at a rapid pace. Or maybe it just seems that way because every time I look up from the screen, another six hours have passed.

With Nintendo's Year of Luigi in full swing, Microsoft still not sure how it wants to present the Xbox One, and Sony leaning back in its chair and making all of the right moves by not making them, one would think that the time leading up to the holiday season would be slow for video games.

But the expected summer doldrum isn't completely dull. A game has stood out from the crowd, something other than another sequel or an incredibly easy time waster. It tried something new and pushed some boundaries. This game is *Rogue Legacy* for PC, Mac, and Linux.

In most games, one expects to die, at least a few times. Given that the current shift in gaming (well, of the blockbuster variety) is toward a hand-holding approach, this expectation may soon fade away forever. But some games still embrace death. They don't care that you will struggle to progress and lose countless

lives, restart from the same place over and over, and inevitably scream to the skies or smash your keyboard in frustration.

*Rogue Legacy* is one of those games. It is hard, sometimes brutally so, and unforgiving, but it is a new take on an old formula. The game wants you to die. In *Legacy*, you take on the role of a warrior storming a castle filled with the usual assortment of ghosts, ghouls, skeletons, and undead minions.

However, there are a couple of new additions to the tried-and-true setup. The first is not a unique idea (in fact, more and more games are using this gimmick), but it does keep the game fresh. With each entrance of the castle, the floor plan changes, meaning you never see the exact same layout twice.

The second is that after every death, the warrior dies permanently. Players are then taken to a screen where they are allowed to pick a descendant to pick up their fallen parent's sword. These descendants all have a given genetic abnormality, termed a "trait" by the game: gigantism, which doubles the warrior's strength and size; ADHD, which increases the warrior's speed; or colorblindness, which causes the player to see the world in shades of gray.

These new features should lead to a fairly enjoyable gaming experience. However, the controls are imprecise and loose, which — coupled with the already unforgiving nature of the game — leads to a frustrating experience, even allowing for enough time to get used to the controls. On top of this, the gold you collect in the castle — which you need to advance character stats and buy weapons, spells, and the like — is stolen from you as soon as you enter the castle. This is not a huge deal at the beginning, but as you level up and everything gets more expensive, this reveals itself as a crippling blow.

This is not to say these features totally ruin the game, but it does slow progress to a snail's pace. More often than not, you will either lack good combinations of trait and class, or you won't find your groove — or you just won't get lucky, plain and simple. *Rogue Legacy* has the potential to be a great game, but at a certain point, playing the game feels like smashing your head against a brick wall. It's worth playing, but be prepared to punch something. This game is old-school hard.

**Ryan Black** | Staffwriter



McConomy Auditorium, University Center

**Andie Park** | Junior Staffwriter

## Good Will Hunting

Friday, Aug. 30 – 7 p.m.

Saturday, Aug. 31 – 10 p.m.

Written by best friends Ben Affleck and Matt Damon, *Good Will Hunting* is a film about a young Massachusetts Institute of Technology janitor, played by Damon, gifted with extraordinary genius yet struggles to figure out what kind of person he wants to be. While most Hollywood movies about a troubled and misunderstood character fall flat, *Good Will Hunting* manages to be truly heartfelt and entertaining with magnificent performances. Damon proves himself a real actor in this film, bursting with charisma and precocious innocence. Its genuine Bostonian attitude also makes the film irresistibly enjoyable.

## Dead Poets Society

Friday, Aug. 30 – 9:30 p.m.

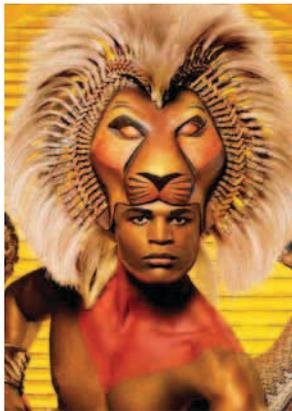
Saturday, Aug. 31 – 7:30 p.m.

Robin Williams showcases his tremendous versatility that spans beyond his comedic reputation, playing a teacher who inspires his students at a prim and proper boarding school through poetry. It's as powerful as it is uplifting, with a young ensemble of actors and a strong yet sentimental storyline. Director Peter Weir exhibits his own style that can elicit emotions without being artificially effusive in this inspirational film.

# ORIENTATION 2013



CMU students receive **up to a 50% discount** off tickets to many shows!



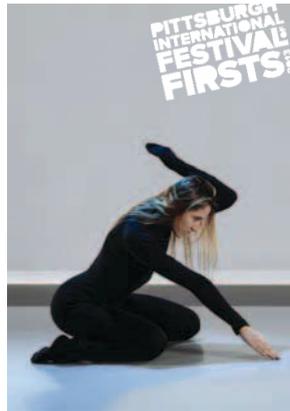
Disney's THE LION KING  
September 3-29 | Benedum Center



SPANK! The Fifty Shades Parody  
September 19-21 | Byham Theater



The Rubber Duck Project  
Launching September 27



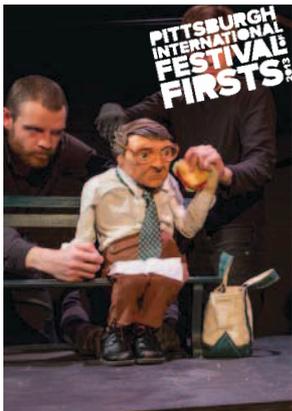
Compagnie Marie Chouinard  
Saturday, September 28 | Byham Theater



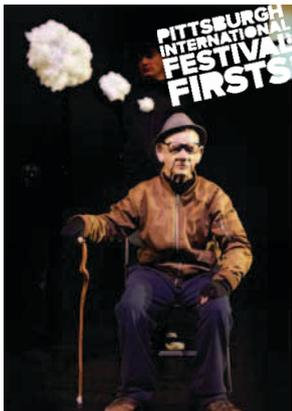
Nanodances | Kiss & Cry  
October 2-4 | New Hazlett Theater



Celtic Thunder  
Sunday, October 6 | Benedum Center



The Pigeoning  
October 9-12 | 937 Liberty



It's Dark Outside  
October 9-12 | Trust Arts Education Center



Zimmermann & de Perrot  
October 18 & 19 | Byham Theater



Measure Back  
October 22-26 | Baum Building



The God That Comes  
October 24-26 | Cabaret at Theater Square



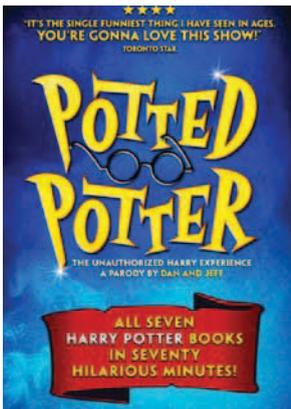
We Will Rock You  
October 29-November 3 | Benedum Center



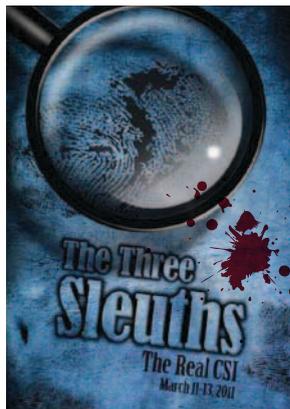
Sweet Honey In The Rock®  
Saturday, November 9 | Byham Theater



Selling England By The Pound  
Wednesday, November 13 | Byham Theater



Potted Potter  
November 20-24 | Byham Theater



The Three Sleuths  
Wednesday, November 20 | Benedum Center



Elf The Musical  
November 26-December 1 | Benedum Center



Straight No Chaser  
Wednesday, December 11 | Benedum Center

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**TrustArts.org / StudentTickets**

Call 412-471-6930 if you have any questions.

## 2013–14 PSO Season

### BNY Mellon Grand Classics Concerts

Oct. 4–Oct. 6	Carmina Burana
Oct. 11–Oct. 13	Honeck, Dvorak, and Mozart
Oct. 25–Oct. 27	Noah Bendix-Balgley Plays Bruch
Nov. 1–Nov. 3	Russian Masterpieces
Nov. 8–Nov. 10	Scheherazade
Nov. 29–Dec. 1	Honeck, Beethoven, & a Waltz Tradition
Dec. 6–Dec. 8	Honeck and the Tallis Scholars
Jan. 17–Jan. 19	Haydn & Zarathustra
Jan. 31–Feb. 2	Bach, Beethoven, & Brahms
Feb. 7–Feb. 9	The Planets with NASA Film
Feb. 21–Feb. 23	Casella, Prokofiev, & Schumann
Feb. 28–March 2	Joshua Bell & Symphonie Espagnole
March 21–March 23	Highlights from “The Ring”
April 4–April 6	Ravel & Debussy
April 25–April 27	Mozart Festival Opens
May 2–May 4	Mozart Festival Finale
May 30–June 1	Vivaldi’s Four Seasons
June 6–June 8	Mahler Symphony No. 9
June 13–June 15	Strauss’s 150th Birthday

For more information on upcoming programs, visit [pso.culturaldistrict.org](http://pso.culturaldistrict.org).

# PSO season shows promise

## Symphony’s 2013–14 series features variety, creativity

With the beginning of another season approaching fast, you would think that the Pittsburgh Symphony Orchestra (PSO) would be rehearsing away at Heinz Hall in the coming weeks — but actually, these musicians are nowhere near Pittsburgh at the moment. In fact, they’re on a different continent.

Music director Manfred Honeck is currently leading the orchestra on the European Festivals Tour, performing 11 concerts in five countries. The PSO has been touring internationally since 1947, and it’s this international status that explains some of the musical gems of the PSO’s upcoming 2013–14 season.

Anticipation for this season is especially high because of recent fiscal events. According to the *Pittsburgh Tribune-Review*, the PSO’s deficit nearly tripled over the last fiscal year, presenting major concerns for the orchestra’s future. But in July, a Point Breeze couple donated \$1.2 million to fund salary increases for PSO musicians, which should keep the orchestra afloat in an economy that is increasingly unkind to organizations like the PSO.

As usual, the orchestra will start big this season. Last year, superstar pianist Lang Lang opened the season with a bang; this year, the Grammy Award-winning and ever-popular Yo-Yo Ma will start off the year with a predictably explosive performance of Tchaikovsky on Sept. 27.

Yo-Yo Ma is probably the only household name

to grace Heinz Hall this season, but the PSO will invite plenty of established talent back to its stage, along with a few lesser-known rising stars. World-renowned violinist Joshua Bell, who performed Bernstein with the orchestra last April, will return in late February to play Lalo’s *Symphonie Espagnole*. And of course, the orchestra never turns down an opportunity to showcase its own talent; PSO concertmaster and acclaimed violinist Noah Bendix-Balgley will perform Bruch’s *Scottish Fantasy* with the orchestra in late October.

Soloists aside, the orchestra will also make a few gentle forays into experimental programming; every once in a while the PSO likes to spice things up by presenting a classic piece in an unconventional way. Although the orchestra will default to some solid orchestral classics like Carmina Burana and Mahler’s Symphony No. 9, there are a few more creative programs in the series, such as the orchestra’s performance of Holst’s *The Planets* in conjunction with a NASA film. This season will also feature a new event, the Mozart Festival — a two-week program co-presented by the Pittsburgh Chamber Music Society and the PSO.

So far, the upcoming season shows promise. The PSO rarely disappoints in delivering world-class performances and inviting renowned soloists, and hopefully this season will be no different.

**Rachel Cohen** | Pillbox Editor



File photo

The Pittsburgh Symphony Orchestra’s international renown allows it to bring in star soloists like Yo-Yo Ma.



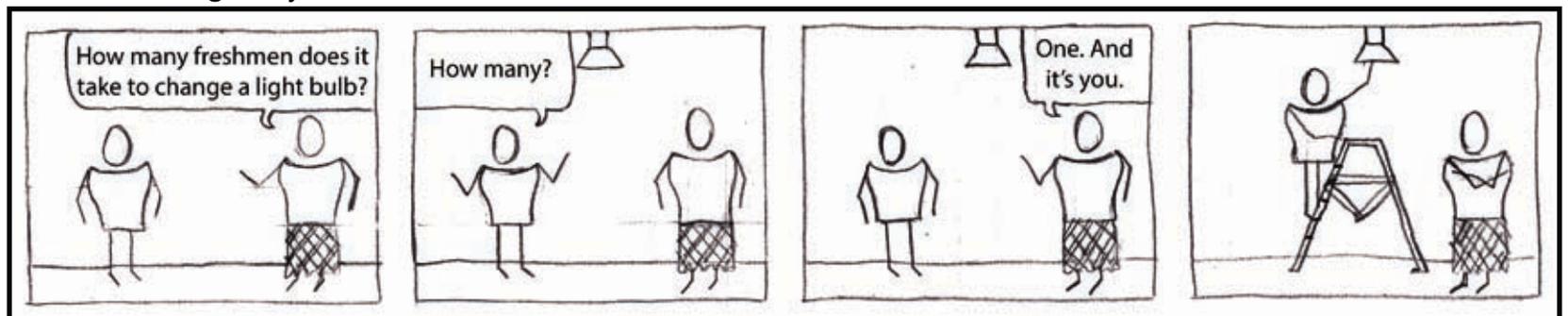
Crinkled Comics by Juan Fernandez



jfernand@andrew.cmu.edu

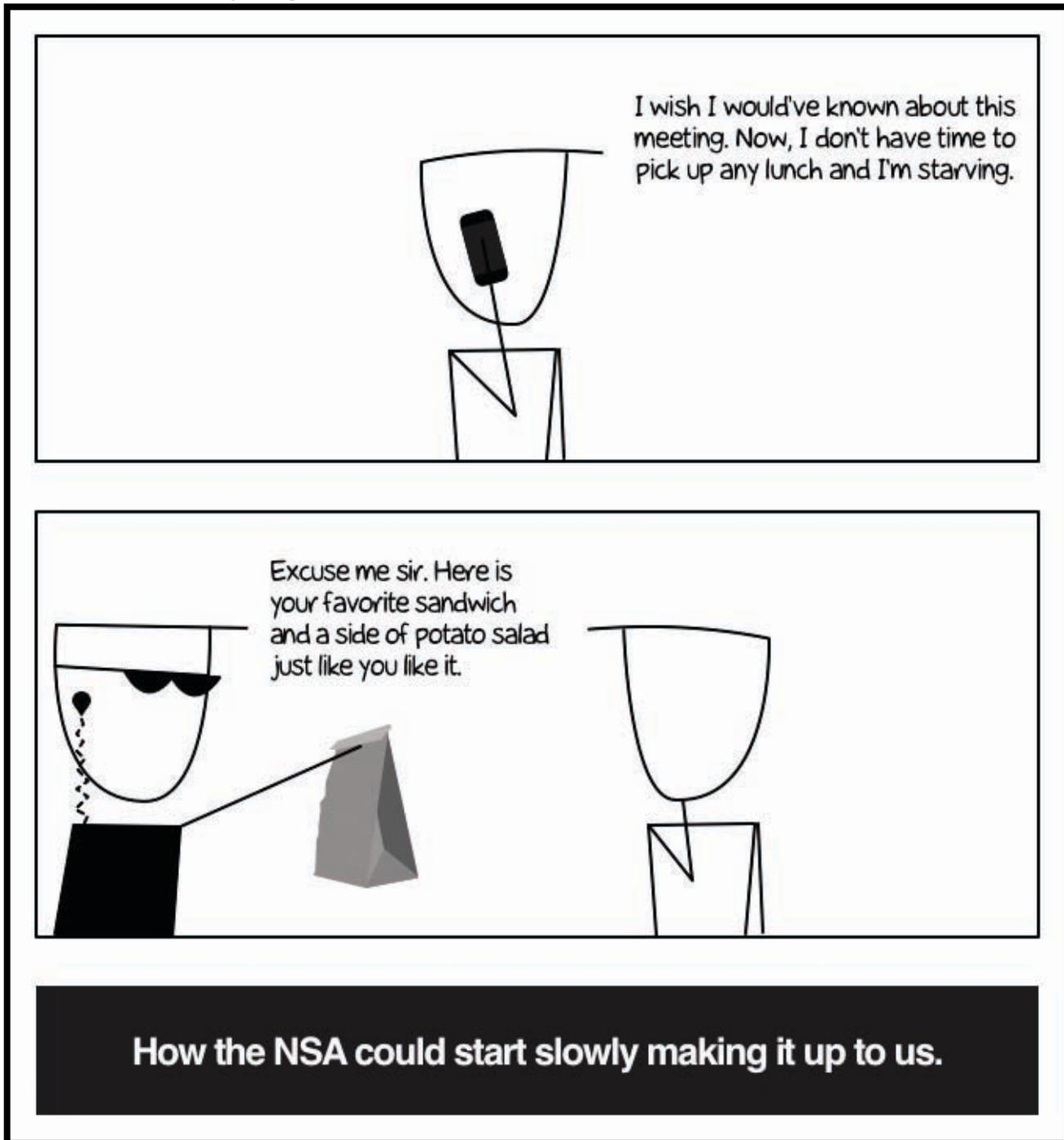
crinkledcomics.com

Kiltie As Charged by Charlie Shulman and Kairavi Chahal



cshulman@andrew.cmu.edu

**Making It Better** by Doghouse Diaries



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### Sudoku Puzzle: Medium Difficulty

		6					3	
		4	8					
	7		9	6	4			
3		7	4				5	1
		2	7		1	8		
8	4				2	7		3
			1	7	9		2	
					5	3		
	1					6		

Sudoku courtesy of [www.opensky.ca/~jdhildeb/software/sudokugen/](http://www.opensky.ca/~jdhildeb/software/sudokugen/)

### Kakuro Puzzle: Easy Difficulty

			11	9				
			3					
		17				30	14	
			27					
		20						
	4					11		
	15					17		
			14	10				
		32						
			16					

Kakuro courtesy of [www.KrazyDad.com](http://www.KrazyDad.com)

Fill all empty squares using numbers 1 to 9 so the sum of each row equals the clue on its left, and the sum of each column equals the clue above it. No number may be used in the same row or column more than once.

## Solutions from May 20

L	A	T	E	R		I	T	S	O		M	O	A	T		
E	L	O	P	E		R	A	C	E		E	S	S	E		
A	L	L	I	N		A	R	I	D		S	A	T	E		
F	A	L	S	E	T	O		I	S	O	G	O	N			
			T	W	E	E		O	P	E	N	E	R	S		
A	T	M	O	S	T		A	G	U	E						
M	O	I	L			H	A	I	R	S	P	R	I	N	G	
A	R	L	E	S		C	D	E		S	E	T	O	N		
H	E	A	R	T		S	E	A	S	E		P	I	S	A	
						R	E	I	N		W	I	E	N	E	R
M	A	R	T	I	A	N		D	A	N	A					
A	R	E	N	A	S		M	O	N	E	T	A	R	Y		
N	E	M	O			I	N	E	Z		S	I	L	A	S	
T	E	A	T			D	O	M	E		S	N	O	R	E	
A	L	P	E			E	B	O	N		E	G	G	A	R	

Crossword

8	2	5	6	9	4	3	1	7
7	4	3	2	8	1	9	5	6
6	9	1	7	5	3	4	2	8
5	6	4	9	1	7	2	8	3
9	8	2	4	3	6	5	7	1
1	3	7	8	2	5	6	9	4
3	7	9	5	4	8	1	6	2
4	5	6	1	7	2	8	3	9
2	1	8	3	6	9	7	4	5

Easy Difficulty

	9	1		2	8									9	7	
	6	2	1	7	9	8								6	2	
			9	3		6	1	3						2	1	
				8	1		5	2	8	1						
				9	8					9	8					
				9	5					9	7					
				6	2	1	8			8	5					
				2	1		2	1	4		2	5				
				6	7					7	9	8	1	2	6	
				9	8					2	4			1	2	

Hard Difficulty

# Horoscopes

## aries

march 21–april 19

Fight for the classes you want. Don't let a silly waitlist stop you from getting in.

## taurus

april 20–may 20

You'd rather be traveling this semester — or at least, you'd like to be in a different place. But don't worry, you'll get to do it soon.

## gemini

may 21–june 21

Try not to get too distracted by that cute guy or girl in your class. Make a move early in the semester.

## cancer

june 22–july 22

Something big is going to happen, and it's going to change you.

## leo

july 23–aug. 22

Remember that blog you created and never updated? Now is the perfect time to start writing and stick to it.

## virgo

aug. 23–sept. 22

People will come to you for advice. Don't be afraid to be honest, even though it might come off as rude.

## libra

sept. 23–oct. 22

You might be stuck in a class of first-years this semester, but be open minded about it and you'll make some great friends.

## scorpio

oct. 23–nov. 21

Don't stress too much about the first week of classes; it'll be a breeze.

## sagittarius

nov. 22–dec. 21

Your classes might not seem connected, but try to incorporate what you learn from one class into another.

## capricorn

dec. 22–jan. 19

You need to pay extra attention in class this week so you don't miss something important.

## aquarius

jan. 20–feb. 18

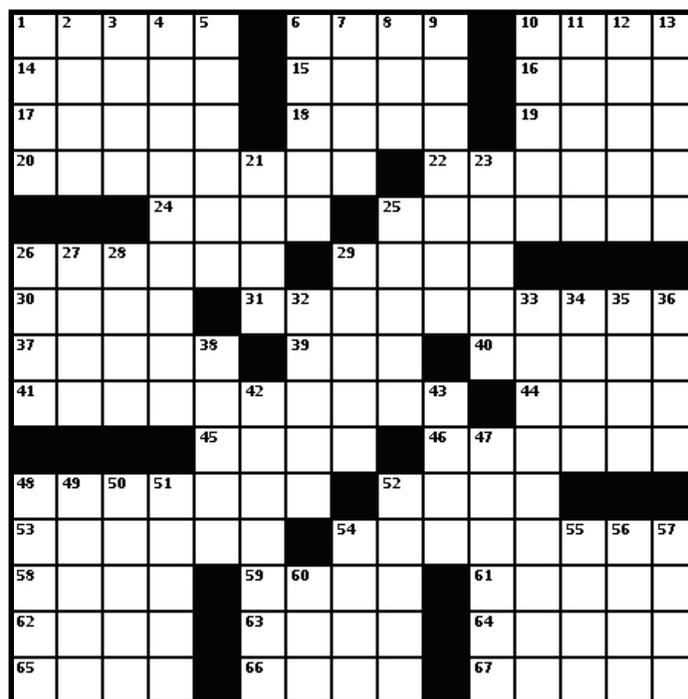
It's only the first week of classes and you're already so busy, your friends feel left out. Slow down and go hang out with them.

## pisces

feb. 19–march 20

Don't jump too hastily into a new relationship. Spend some time getting to know each other first.

Kairavi Chahal | Comics Editor



Crossword courtesy of [BestCrosswords.com](http://BestCrosswords.com)

### ACROSS

1. Corpulent
6. Cancun coin
10. Latin 101 word
14. Aired again
15. “\_\_\_ Brockovich”
16. Not fem.
17. Inclined
18. Record
19. Too
20. Produces milk
22. Jaw
24. Name of 12 popes
25. Intervene
26. In and of \_\_\_
29. Freelancer's encl.
30. Spellbound
31. Air
37. Staggering
39. Boat propeller
40. Stun gun
41. Cemetery
44. This \_\_\_ outrage!
45. Drum sound
46. Slanted
48. Pure
52. Hill dwellers
53. Install in a position
54. Makers
58. Festive occasion
59. Salt Lake City hoopsters
61. \_\_\_ boom
62. Actor McGregor
63. Fix up
64. English architect Jones
65. Actress Sofer
66. Idyllic place
67. Went after

### DOWN

1. Unwritten
2. Second letter of the Greek alphabet
3. Slang expert Partridge
4. Potassium nitrate
5. Involve
6. For \_\_\_ sake!
7. Historical chapters
8. Little drink
9. Unity
10. Valuable violin
11. Island near Sicily
12. It's a plus
13. Tally
21. Porous limestone
23. Crackerjack
25. New Zealand native
26. Teheran's country
27. Shipping deduction
28. Blueprint detail
29. Little
32. Implements
33. Pellet of precipitation
34. Canadian gas brand
35. Harvest
36. Fish-eating eagle
38. Actress Sophia
42. Attitude
43. Having a sound mind
47. Equilibrium
48. More wise
49. Dumbstruck
50. Atari founder Bushnell
51. Climbing vine
52. Burning of another's property
54. Relinquish
55. Put a lid \_\_\_!
56. Baltic capital
57. Nae sayer?
60. A Kennedy

TUESDAY 8.27.13

**Geographer with GMRLN.** Altar Bar. 7 p.m.

San Francisco-based indie rock band Geographer will perform at the Altar Bar. For more information, visit [thealtarbar.com](http://thealtarbar.com).

**Martial Canterel with Son of David and Model Human.** brillobox. 9 p.m. 21+.

Sean McBride, also known as Martial Canterel, is a cold synth musician from Brooklyn, New York. For more information, visit [brillobox.net](http://brillobox.net).

THURSDAY 8.29.13

**Montgomery Gentry.** Stage AE. 6:30 p.m.

Montgomery Gentry is an American music duo comprised of Kentucky-born vocalists Eddie Montgomery and Troy Gentry. For more information, visit [stageae.com](http://stageae.com).

**Pittsburgh Improv Jam.** Cabaret at Theatre Square.

10 p.m. 21+.

At this weekly late-night event, professional improvisers take the stage and perform comedic scenes inspired by audience suggestions. For more information, visit [culturaldistrict.org](http://culturaldistrict.org).

SATURDAY 8.31.13

**Masters of the Universe!** Altar Bar. 8 p.m.

Pittsburgh-based ska rock band Masters of the Universe! will perform at the Altar Bar. For more information, visit [thealtarbar.com](http://thealtarbar.com).

ONGOING

**Teenie Harris: Focus on Hair.** Carnegie Museum of Art. Through Sept. 15.

This sequel to a previous Teenie Harris exhibit at the Carnegie Museum of Art explores black hair and beauty as examined by the African-American photographer. For more information, visit [cmoa.org](http://cmoa.org).

**Caldwell Linker: All Through the Night.**

Andy Warhol Museum. Through Sept. 15.

This exhibit presents a selection of photographs by Caldwell Linker, who uses his camera to capture LGBTQ individuals and events and to highlight the richness of the LGBTQ community. For more information, visit [warhol.org](http://warhol.org).

**Summer Flower Show.** Phipps Conservatory and Botanical Gardens. Through Oct. 6.

The Summer Flower Show at Phipps incorporates glass artwork into the gardens, creating a colorful and whimsical fusion of the artificial and the natural. For more information, visit [phippsc conservatory.org](http://phippsc conservatory.org).

**Roads of Arabia.** Carnegie Museum of Natural History. Through Nov. 3.

This exhibit transports visitors to the sands of Saudi Arabia, where recent archaeological finds are redefining our understanding of the region. For more information, visit [cmnh.org](http://cmnh.org).

UPCOMING

**The Lion King.** Benedum Center. Sept. 3 through Sept. 11.

The Tony Award-winning Broadway adaptation of the beloved Disney classic will return to Pittsburgh, featuring favorite musical numbers such as "Circle of Life" and Elton John's "Can You Feel the Love Tonight." For tickets and more information, visit [culturaldistrict.org](http://culturaldistrict.org).

**Janine Antoni.** Mattress Factory. Sept. 13 through March 30.

Margery King, the curator who first introduced Yayoi Kusama to the Mattress Factory, presents the work of multimedia contemporary artist Janine Antoni, who focuses on issues of femininity and the female body. Admission to the museum is free with Carnegie Mellon student ID. For more information, visit [mattress.org](http://mattress.org).

**Alien She.** Miller Gallery (Purnell Center for the Arts). Sept. 21 through Feb. 16.

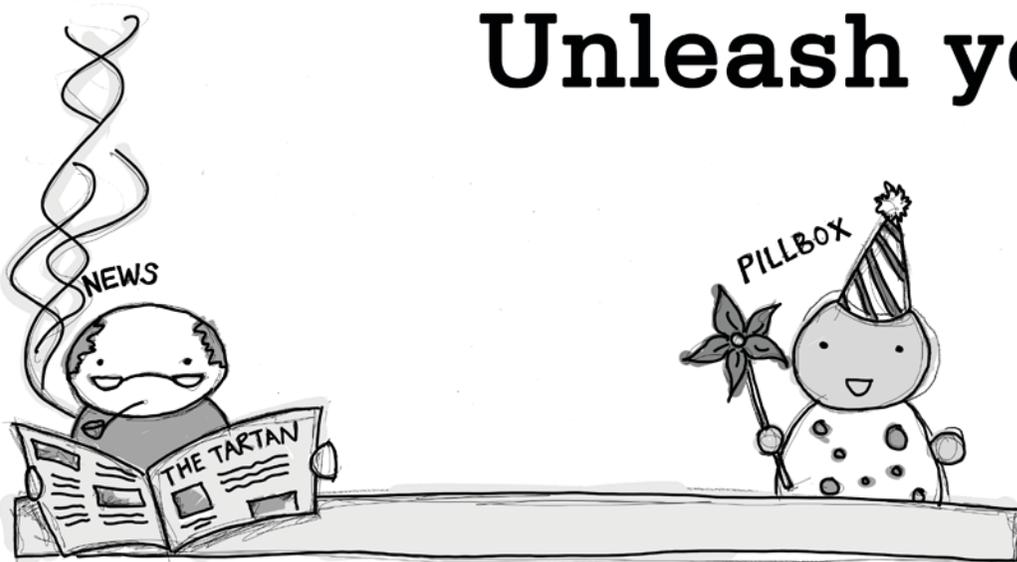
This exhibit examines the influence of Riot Grrrl, an underground feminist punk rock movement that surfaced in the '90s, on artists and cultural producers today. Admission to the Miller Gallery is free and open to the public. For more information, visit [millergallery.cfa.cmu.edu](http://millergallery.cfa.cmu.edu).

Compiled by **Rachel Cohen** | Pillbox Editor

Want your event here?

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# Unleash your inner child



Write for Pillbox

[pillbox@thetartan.org](mailto:pillbox@thetartan.org)

# art festival.



Kate Groschner | Photo Editor

Artists and art patrons alike flocked to Walnut Street for the 16th Annual Shadyside... The Art Festival last Saturday. **Top:** Artist Cheryll Grogan, who specializes in house portraits, car portraits, and custom charts, stands in front of her work. **Bottom:** Festival patrons browse the art and other goods on view.

