

Students recognized for excellence in leadership

BETH LARRANAGA
Dean's Office

The Dean of Undergraduate Students hosted a lunch ceremony at the Athenaeum on May 12 to honor and recognize this year's winners of the following leadership awards.

Frederic W. Hinrichs, Jr. Memorial Award

Adam Jermyn is the winner of the 2015 Hinrichs Memorial Award. This award is given in memory of Frederic W. Hinrichs, Jr., who served for more than 20 years as dean and professor at the Institute. The award bearing his name is made annually to the senior who, throughout his or her undergraduate years, has made the greatest contributions to the student body and whose qualities of character, leadership and responsibility have been outstanding.

Mabel Beckman Prize

Karsyn Bailey is the recipient of the Mabel Beckman Prize. This award is given in memory of Mrs. Beckman's many years of commitment to Caltech's educational and research programs. This award is for academic excellence and outstanding leadership skills, a commitment to personal excellence, good

character and a strong interest in the Caltech community.

Bibi Jentoft-Nilsen Memorial Award

Grace Leishman is this year's winner of the Bibi Jentoft-Nilsen Memorial Award. This prize is given in memory of Bibi Jentoft-Nilsen ('89) to an exceptional student leader. After Jentoft-Nilsen's untimely death in 1990, a fund was established to recognize outstanding student leaders.

Doris Everhart Service Award

Allika Walvekar was selected as the recipient of the Doris Everhart Service Award. This award is given annually to an undergraduate who has actively supported and willingly worked for organizations that enrich student life and the campus or community as a whole and who has exhibited care and concern for the welfare of students on a personal basis.

Deans' Cup and Campus Life and Master's Award

Deans' Cup and Campus Life and Master's Award are presented to undergraduates whose concern for their fellow students has been demonstrated by persistent



Undergraduates were honored for their leadership during a lunch ceremony hosted by the Dean of Undergraduate Students.

Photo Courtesy of Dean's Office

efforts to improve the quality of undergraduate life and by effective communication with members of the faculty and administration.

Robert Anderson, Mark Greenfield, Bianca Lepe and Nicholas Schiefer received the 2015 Deans' Cup.

Erin Evans, Connor Rosen and Corwin Shiu were awarded the Campus Life and Master's Award.

Mari Peterson Ligocki '81 Memorial Award

Justin Koch was selected as the recipient of this year's Mari Peterson Ligocki '81 Memorial Award. The Mari Peterson Ligocki '81 Memorial Award is made to one student who, through his or her personal character, has improved the quality of student life at

Caltech. It recognizes the student who provides quiet support and kind encouragement to peers. This fund was established by José F. Helú Jr. ('79) to honor the memory of Mari Peterson Ligocki ('81), who possessed these qualities.

The Frank Teruggi Memorial Award

Emil Khabibouline was selected to receive this year's Frank Teruggi Memorial Award. The Frank Teruggi Memorial Award was established in 1998 by friends and classmates of the late Frank Teruggi, a Caltech undergraduate who was murdered in Chile in 1973 during the military coup led by Augusto Pinochet. The annual award honors the spirit of Frank's life, especially "in the areas of Latin

American studies, radical politics, creative radio programming, and other activities aimed at improving the living conditions of the less fortunate."

The Lucy Guernsey Service Award

Melissa Chang, Emil Khabibouline and Vansh Kumar were the recipients of this year's Lucy Guernsey Service Award. The Lucy Guernsey Service Award was established by the Caltech Y ExComm in honor of Lucy Guernsey, the Y's Executive Director from 1989-1991. The award is given annually to one or two students who have provided exceptional service to the Y and/or the community and exemplify a spirit of service.

Visions of the future with science fiction author Kim Stanley Robinson

CASEY HANDMER
Contributing Writer

Last month I sat down for an interview with celebrated Californian science fiction author Kim Stanley Robinson to explore his thoughts and visions of the future.

Casey Handmer: How do you describe what you do? Why do you write science fiction?

Kim Stanley Robinson: I write science fiction as a kind of realism, in most of my books. I do that because I think science fiction is the best literary form for realist art in our era.

CH: While your 20 or so novels have been very well received, the most surprising thing about exploring them is that their style is less uniform and more experimental?

KSR: The narrator for most of [my latest novel,] *Aurora*, is an artificial intelligence that is running

the starship. So that computer has to learn to write a novel. It runs through the history of English prose and novel techniques, starting with primitive realism. Finally, in the interstellar medium at the end of the novel there's just a stream of consciousness of the artificial intelligence. It was so much fun to write.

CH: Your Mars trilogy is still remarkably scientifically accurate, despite being published more than 20 years ago. Nevertheless, about those windmills in *Red Mars*...

KSR: The first edition was full of errors – I made about 300 corrections. After the 18th printing of *Red Mars* in paperback, there's a set of corrections listed at the end that have to fit the pages like a crossword puzzle, to keep the pages the same length.

CH: Haha, I think "after the 18th printing" is the perfect answer to the pedants. It's art, you know. At some point you say, "I'm

telling a story." I tell stories all the time. You don't tell exactly what happened. You take key things and relate the narrative, that's the important part.

KSR: But with science fiction, you want to keep from throwing people out of it, or else people can get annoyed. Readers fall into a dream state of reading, but if they get cast out of it because of something being wrong, they can get angry, or amused, at the author. It splits according to the character of the reader.

CH: I appreciate the effort to get the technical detail right; it's a colossal pain. Your work is rightly renowned for its attention to detail and very hard science fiction attributes. Why do you see technical accuracy as a necessary part of the craft?

KSR: As an example, abandoning Earth [in the 2014

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The Downtown Fiction headlines TechStock



Photo Courtesy of Neera Shah

See pages 4 and 7 for more coverage on TechStock.

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Caltech Y Column

CALTECH Y

The Caltech Y Column serves to inform students of upcoming events and volunteer opportunities. The list is compiled by Neera Shah from information given by the Caltech Y and its student leaders.

Founded by students in 1916, the Y was organized to provide extracurricular activities planned and implemented by students as an opportunity to learn leadership skills and discover themselves. The mission of today's Y remains the same—to provide opportunities that will prepare students to become engaged, responsible citizens of the world. The Y seeks to broaden students' worldviews, raise social, ethical, and cultural awareness through teamwork, community engagement, activism, and leadership. More information about the Caltech Y and its programs can be found at <https://caltechy.org>. The office is located at 505 S. Wilson Avenue.

Ongoing and past programs hosted by the Y:

Alternative Spring Breaks: Costa Rica, New York, Yosemite, San Diego, San Francisco

Make-A-Difference Day:

Hillsides Home for Children, LA County Arboretum and Botanic Garden, Children's Hospital Los Angeles (Coachart), Eaton Canyon, Lifeline for Pets

Explore LA: Lakers game, Next to Normal musical, Norton Simon Museum trip

RISE Tutoring program (an afterschool math and science-focused tutoring program that serves public school students between grades 8 and 12)

Upcoming Events

1. Matilda the Musical - Caltech Y Explore LA Series

Sunday | May 31st | 1:00 PM
Showtime | Ahmanson Theater | \$30

Transportation is NOT provided | Tickets on sale at the Caltech Y

Winner of 50 international awards, including four Tony Awards, Matilda The Musical is the story of an extraordinary girl who, armed with a vivid imagination and a sharp mind, dares to take a stand and change her own destiny.

Based on the beloved novel by Roald Dahl, Matilda continues to thrill sold-out audiences of all ages on Broadway and in London's West End. The Wall Street Journal says, "The makers of Matilda have done the impossible triumphantly! It is smart, sweet, zany and stupendous fun."

This offer is for students only; however students purchasing

tickets are permitted to purchase tickets for up to one guest each - and that guest can be a non-student. The Caltech Y is located in the Tyson House 505 South Wilson (Bldg. 128).

2. Caltech Y India Cultural Trip - Applications Available Now

December 12th - 22nd, 2015 | Cost: \$950 | Applications Due Thursday, May 28th by 5:00 PM

The Caltech Y, in partnership with the SURF Program and IIT Gandhinagar (IITGN) in India, is coordinating a trip to Ahmedabad, India. Join us for an exciting trip as we explore India as an emerging nation and its potential role as a global leader in the context of its history and culture. The Caltech group will be hosted by IITGN and discussions and trips will be led by IITGN faculty.

The trip is open to undergraduate students only - sorry no graduate students. Applications can be found at http://caltechy.org/programs_services/areas/India/index.php and are due by 5 pm, Thursday, May 28th. Questions may be directed to caltechy@caltech.edu. Space is limited.



Photo Courtesy of Caltech Y

3a. Pasadena LEARNS

Friday | 3:00 - 5:00pm | Madison and Jackson Elementary School | Pasadena

Come volunteer at Madison and Jackson Elementary School! We are partnered with the Pasadena LEARNS program and work with their Science Olympiad team or do regular tutoring along with occasional hands-on science experiments. Transportation is provided. For more information and to RSVP, contact vkumar@caltech.edu. Eligible for Federal Work Study.

3b. Hathaway Sycamores

Monday | 5:30-8:00pm | Highland Park

Volunteer at Hathaway-Sycamores, a group that supports local underprivileged but motivated high school students. There are a variety of ages and subjects being tutored. The service trip includes about an hour of travel time and 1.5 hours of tutoring. Transportation is included. For more info and to RSVP email Sherwood Richers at srichers@tapir.caltech.edu. Eligible for Federal Work Study.

Barton receives Gold Medal of the American Institute of Chemists

LORI DAJOSE
Contributing Writer

This article was originally published online at caltech.edu

The Gold Medal of the American Institute of Chemists (AIC) has been awarded to Jacqueline Barton, the Arthur and Marian Hanisch Memorial Professor of Chemistry and chair of the division of chemistry and chemical engineering. The award is the AIC's highest honor and recognizes "service to the science of chemistry and to the profession of chemist or chemical engineer in the United States."

Barton's research centers on the chemical and physical properties of DNA and their biological implications. Her group examines

the chemistry of how electrons are conducted throughout a DNA molecule and how DNA-repairing enzymes can use this electron flow to locate mutations and mistakes in the DNA that could potentially cause cancers and diseases.

Barton received her Ph.D. from Columbia University in 1978. She has been at Caltech as a professor since 1989. The recipient of numerous honors—including the 2010 National Medal of Science, a MacArthur Fellowship and the National Science Foundation's Waterman Award — Barton was also awarded the 2015 Priestley Medal, the highest honor of the American



Photo Courtesy of Bob Paz

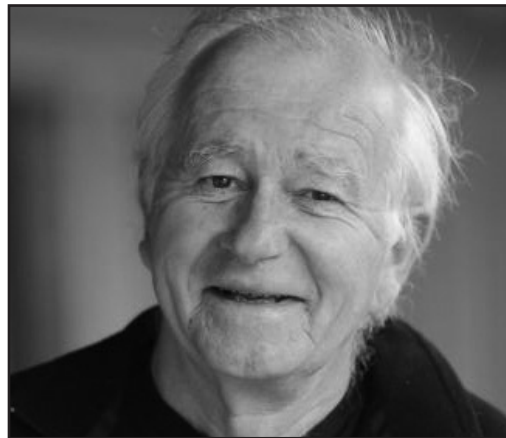
Chemical Society, for her work on the chemistry of DNA.

Nick Scoville awarded NRAO Radio astronomy lectureship

LORI DAJOSE
Contributing Writer

This article was originally published online at caltech.edu

Nick Scoville, the Francis L. Moseley Professor of Astronomy, has been awarded the 2015 Karl G. Jansky Lectureship from the National Radio Astronomy Observatory (NRAO) and the



<http://caltech.edu>

Associated Universities, Inc. The lectureship is named for Karl Jansky, a pioneer in the field of radio astronomy and the first to detect radio waves from a cosmic source.

Scoville's research currently focuses on the formation and evolution of galaxies and their central black holes, as studied using the Cosmic Evolution Survey (COSMOS). The survey maps galaxies as a function of cosmic time by observing the redshift in their light spectra. Redshift is the physical phenomenon in which the light spectrum emitted by an object will be shifted toward longer, redder wavelengths, due to the object's movement away from an observer. Scoville

is interested in mapping large-scale structures of the universe at high redshift—such structures would include superclusters of galaxies that form the "cosmic web." He is currently using the new Atacama Large Millimeter Array (ALMA) to investigate the evolution of star formation in the early Universe and colliding starburst galaxies nearby.

Scoville arrived at Caltech as a professor in 1984. He has previously been the director of Caltech's Owens Valley Radio Observatory, and his previous awards include a Guggenheim Fellowship, and the University of Arizona's Aaronson Lectureship, awarded for excellence in astronomical research. As Jansky Lecturer, Scoville will give public lectures at NRAO facilities in Charlottesville, Virginia; Green Bank, West Virginia; and Socorro, New Mexico.

Noland Leadership Award winners named

BETH LARRANAGA
Dean's Office

The Robert L. Noland Leadership Award is for outstanding Caltech students who have demonstrated exceptional leadership abilities and have encouraged and supported others in realizing their own leadership capabilities.

Phoebe Ann, Wen Min Chen, Alex Hartz and Connor Rosen are this year's awardees. Ann, Hartz and Rosen were presented with their awards at a dinner attended by the Noland family, faculty, administrators and other guests in the Athenaeum Library on May 13, 2015. Since she completed

her requirements and was out of town, Chen was unable to attend. Congratulations to these four exceptional students.



(From left) Connor Rosen, Phoebe Ann, Alex Hartz and Wen Min Chen (not pictured) received the Robert L. Noland Leadership Award for 2015. Photo Courtesy of Dean's Office

Author ties economic, scientific theories to his books

Continued from page 1

film *Interstellar*] is somewhat of a moral hazard. The general population is bad on these issues, in terms of what is possible and what is not. Science fiction has this general danger, because many people say, “Oh, that must be possible” because it got written up.

CH: That’s interesting; so science fiction authors have a social responsibility to build a realistic future world?

KSR: It’s very common for physicists to say that [because of future ecological disaster] 90% of humans will die. It’s an absurd thing to say because it creates a general distrust and hatred of science. It’s also a science fiction statement. When people say science fiction statements as though they were solidly scientific statements, like the nature of a physical law, then they’re in the nature of a hoax which can be a dangerous hoax.

CH: So sea levels will rise 15 feet over a decade, or a century?

KSR: I know what you’re saying, but we will adapt. We have to, just like we breathe. We are primates, we have done it all along. I object to the political program where [we] just give up, keep burning carbon because we like it, or we can’t stop. It’s defeatism, a pseudo-philosophy, a pseudo-realism.

CH: Well, even if only a tiny fraction of humans will ever be able to leave the Earth, what is your view on human colonization of space?

KSR: I like the idea of going to the moon; I like asteroids. And obviously, I like the idea of Mars. Whatever works, as far as I’m concerned. More is better; let’s do it all. Robotic exploration, such as at JPL, is fine too. This idea that manned space exploration will save civilization and it has to be humans colonizing space and blah blah blah, the Wild West metaphor, all that is terribly lame thinking.

CH: Seems more likely to be analogous to the Soviet expansion through the tundra.

KSR: Good luck with that!

CH: Technological and very expensive. But possible. So, what’s next for you in terms of writing?

KSR: I’m getting close to being done!

CH: You set out a program 30 years ago?

KSR: No, I just don’t want to repeat myself. I’m interested to do all the subgenres of science fiction and make one significant contribution to each of the ones that I like. I’ve done an alternative history, I’ve done the solar system, I’ve done the planetary colonization, I’ve done time travel, I’ve done the prehistoric novel. I always thought that was a really important subgenre of science fiction because of archaeology, sociobiology and evolution. That was *Shaman*, my most recently published novel. And *Aurora* is what I have to say about going to the stars.

CH: You need warp drive or lots of antimatter. The speeds and energies involved – there are certain physical limits which are hard to get away from.

KSR: I don’t think it’s going to work, but fortunately there’s more to *Aurora* than that!

CH: It seems like a long shot with any current or projected technology. But we don’t know enough to see far enough to know that it will always be impossible.

KSR: Technology is a challenge which is a physics thing. There’s a tendency for physicists to talk about physics and all other things in terms of physics, which everything ultimately comes down to. But the problems for interstellar travel for humans are biological, sociological, ecological, and psychological. On all these levels, it’s in terrible, terrible trouble.

CH: We are just thinking meat – it’s too many orders of magnitude

beyond our ancestral activities. More locally, though, for the first time in the history of the universe, as far as we know, humans have enough industrial capacity and coordination to colonize other planets. Do you think we’ll be able to colonize Mars before something else goes seriously wrong?

KSR: The best analogy for Mars is not the New World, so colonization is not the right word. A better analogy is Antarctica, so yes, we can set up scientific stations there, similar to McMurdo and other Antarctic stations, any time we decide to pay to do it, with the years of work needed also. We are definitely robust enough to do that, and JPL would be a big leader, as it has been. But colonization implies many people, and therefore terraforming, really, to make that place livable. So that’s a 10,000-year project, maybe, worth doing



Kim Stanely Robinson is a science fiction author.

[-http://commons.wikimedia.org/](http://commons.wikimedia.org/)

when we have a stable civilization here on Earth. Worth thinking about now, too. The long perspective is often useful.

CH: One consistent theme of your work has been an exploration of post-

capitalist societies. Post-capitalism as a term sounds a lot stranger than it should be, but people aren’t often thinking about a future system. In your view, what are the key strengths and weaknesses of capitalism as a system?

KSR: Its strength is that it is a legal system and as such can in theory be modified for the better by legislating different laws. This is an advance over the sheer force and nepotism of feudal and earlier economics. It has another strength that is at the same time a weakness, which is that it crowdsources human desires to make prices for goods and services, so that what

people want tends to create prices in a market.

CH: What’s wrong with that?

KSR: The problem is people can want impossible things – possible for individuals maybe, but impossible for group and planet over time. Thus we systemically underprice most commodities and services because the pressure of supply and demand favors buyers oversellers. The worst underpricing involves natural resources, externalized in accounting but not reality, and human labor, which is scared into cheap misery. But as these are the two most important resources, pricing both at predatory dumping prices –

CH: Predatory dumping?

KSR: – charging less than it costs to make to drive competitors out of business, means that we live in a multi-generational Ponzi scheme, and it’s the generations to come who will take the hit. That hit is starting now. Another weakness is the way the laws of capitalism unconsciously reproduce laws of gravity such that accumulated capital has more power to accumulate than smaller masses of it. So the rich get richer and the poor poorer, as demonstrated by [Thomas] Piketty, though also recognized in [other, older economic systems].

CH: Caltech students do not have much political power, but they are at the forefront of technological innovation. We’ve already seen some examples of IT-leveraged economic innovation, such as Uber, Airbnb, bitcoin, etc., that have circumvented or short-circuited our largely moribund legislature. Some wildly successful Silicon Valley companies have succeeded mostly in enriching themselves, but the capacity still exists for the next generation of engineers to have a prominent voice in the future they design and build for the rest of us. Do you think it’s possible for a less wasteful, less greedy economic model to outcompete capitalism on its own turf?

KSR: Yes to that last, except with this caveat: capital can try to

buy the legislatures that make the laws that run capitalism, in which case, any other system will be handicapped because the rules make the game. So the question becomes, “Is democracy real, or does accumulated capital, or oligarchy, run our governments?” This is the battle being fought in our political life now, everywhere.

CH: Can the dreams of post-capitalist America left be realized through technology rather than policy?

KSR: More generally, how can we price goods and services if we decide that the market systemically underprices things and is destroying the biosphere and human lives? Especially when there is currently no central planning system that could work to replace the market? This to me is the big “technological” question, and I do think it’s a scientific question in systems design involving feedbacks of all kinds, as well as a political question.

CH: Where does Caltech fit in this?

KSR: So it is not outside the Caltech purview by any means to be asking, “How can we realistically change the global system to something more sustainable?” and then regard [capitalist] economics not as a field itself but rather a meta-field, a very big and important social science that can benefit from rigorous studies from the hard science angles. The Caltech political economists can do a projective project of designing stepwise reforms to a sustainable post-capitalism. I imagine something like first anti-austerity, back to Keynesian macroeconomics. Then social democracy, Scandinavian style. Then socialism, meaning public utility districts in USA-speak. Then some X system that we can only call post-capitalism at this point, because it doesn’t exist yet; but it needs to be sustainable, and just.

CH: Well that’s certainly thought-provoking stuff! Thank you for your time, and perhaps we’ll see you hiking in the Sierras.

Should the Feds increase the minimum wage?

SEAN MCKENNA
Contributing Writer

On May 20, the Los Angeles City Council voted to increase the city’s minimum wage to \$15 per hour by 2020, following in the footsteps of San Francisco and Seattle. A similar federal minimum wage increase has become a rallying cry for laborers, whose cause has largely been taken up by the Democratic Party. This week I’m going over the economic arguments for and against increasing the minimum wage (as a percentage of mean wage), and then explaining why I don’t think we should increase it given the slack still present in our economy.

The minimum wage is regularly increased somewhat in tandem

with inflation, but advocates are looking to increase the minimum relative to all wages across the country. Our federal minimum wage of \$7.25 is 37 percent of the median wage, second-to-last in the Organisation for Economic Co-operation and Development (OECD). Furthermore, the U.S. minimum wage is 27 percent of the mean wage (which gives more weight to those with sky-high salaries), tied with Mexico for lowest in the OECD. Thus, for those like Hillary Clinton who believe “the deck is stacked against the average American,” a minimum wage hike above and beyond simply adjusting for inflation is a political rallying cry. It promises an increase in standard of living and purchasing power for those

making minimum wage. The argument goes that the increase in purchasing power should stimulate our consumption-based economy, so a minimum-wage hike would be good for everyone across the country.

While fatter wallets in the pockets of consumers would increase consumption, the argument against increasing the minimum wage is that employers can’t afford it and will respond by cutting their workforce. Increased wages would come out of profits and businesses would respond with layoffs. The size of the resulting initial spike in the unemployment rate is unclear, as is the potential for economic growth from consumption to mediate it in the short or long term.

In the case of Los Angeles, the city must be banking on a similar federal minimum-wage hike sometime soon. Otherwise, its municipal boundaries would be lined with drive-thru restaurants and clothing retailers in the neighboring cities where labor costs half as much. So let’s consider raising the federal minimum wage. Here is an argument against increasing it at this time:

Since the economic recovery began in 2009, our labor force participation rate (those of working age who are employed or actively seeking work) has been stuck at the lowest level on record, and historically high numbers of Americans remain underemployed. In short, our economy is not healthy. Additionally, the best

sectors for job growth (besides fracking-related oil jobs) have been the retail and dining sectors, which employ many of the country’s minimum-wage workers.

In an economy with more available jobs and upward pressure on wages, the increased labor costs of a minimum-wage hike could be shrugged off more easily. But, in this economy, a minimum-wage increase is not the way to get us out of the doldrums.

While the idea of everyone making a “livable wage” is incredibly appealing, I don’t believe we currently have the ability to provide a living wage for everyone. We can’t simply force our economy to provide everyone with a living wage; we must modernize it to make it capable of doing so.

A Techer's perspective: Why you're communicating wrong

KSHITIJ GROVER
Contributing Writer

Here are the biggest mistakes people make when communicating their ideas, whether on stage or in natural conversation.

(1) You assume that you have the other person's attention just because the person is in a chair looking at you. This is *never* the case. About 90% of talking effectively comes down to captivating attention. Yawning is infectious. As a speaker, you need to project personality. You need to use tone — from the very beginning. Once people drop off the edge and start texting under the table or wandering their eyes, you're not getting them back.

(2) You think content is most important. Good content only shines with proper timing and outstanding charisma. If people aren't listening to you in the first place, they aren't going to appreciate what you're saying. If people are attracted to your conversation dynamics, content will take a secondary role — they're already internally rooting for you.

(3) You think you're telling the audience something. No. You're *convincing* the audience of something. I don't care what the talk is about, even if it's not a pitch (*it's always a pitch*). At the very core of it, you're selling yourself as someone the audience should care about. Every single word you say should further this.

(4) You think you should project who you *really* are. Especially if we're talking about on-stage, the best speakers often completely morph when they get in front of people. They draw from the energy of the crowd, and build on people's reactions. Someone like Steve Jobs isn't a loud market-seller when he's offstage. Having a stage personality is important. The goal of any talk isn't to share a deep insight about yourself. It's to win people over.

(5) You think you can plan and be precise. Humans are incredibly good at telling when something is not passionate, or when someone is being artificial. When you script things, you run the risk of coming off rehearsed — an instant bottleneck to your charisma. You need to breathe the topic and live the moment when you're on stage. Plan to embody the topic, but don't plan the words. Every word you memorize loses its meaning when it comes out of your mouth.

Talking is an art, and I'm convinced people take it too lightly. It's the one skill that can get you out of anything.

Check out other posts at <http://medium.com/@kshithappens>.

Caltech hosts 2nd annual Take Back the Night

LIZ LAWLER
Page Editor

On May 23, from 5 p.m. to 8 p.m. in Avery courtyard, Caltech held its second annual Take Back the Night in support of sexual assault awareness and violence prevention. Take Back the Night (TBTN) events are held in hundreds of communities around the world to support survivors, raise awareness, and work toward ending sexual violence.

Typically, TBTN events consist of a rally followed by a march and speak-out or candlelight vigil on violence against women. TBTN events started in the 1970s with marches to protest violence against women. TBTN marches began as a way to protest the violence women experience while walking in public at night and has grown to be a way to speak out against the violence and raise awareness to prevent future violence. The event

is also inclusive of men, including men as victims, bystanders and supporters. Sexual violence affects everyone; 1 in 3 women and 1 in 6

men worldwide experience some form of sexual violence. Less than 50 percent of these victims will report these crimes.

TBTN is about the power of speaking out. Sexual assault, domestic violence, dating violence, etc., are often labeled "crimes of silence" because of the low reporting rates and social discomfort around the discussion of these crimes. By shattering the silence on sexual violence, TBTN events help survivors know that they are not alone, and that their experiences will be heard and not left to go silently into the night.

Caltech's TBTN event included speakers and performers. A mini clothesline project display set the backdrop for the event that presented different types of survivors.

The event offered a safe space for supporters and survivors to give voices to their experiences. This year students were encouraged to anonymously submit poems, monologues, stories and other creative pieces that would be read by volunteers. Caltech's TBTN sought to give a platform to voices that often go silenced.

Caltech's TBTN event is still young and growing, but marks an important step for changing campus attitudes. Often times Techers have an attitude that Caltech has a distinct "otherness" and uniqueness setting it apart from other campuses. There is a prevalent belief that sexual assault doesn't happen here or doesn't affect the people here. This attitude further acts to silence survivors by discrediting their trauma. In addition, the idea that sexual assault doesn't happen at Caltech creates a dangerous environment that normalizes assault.

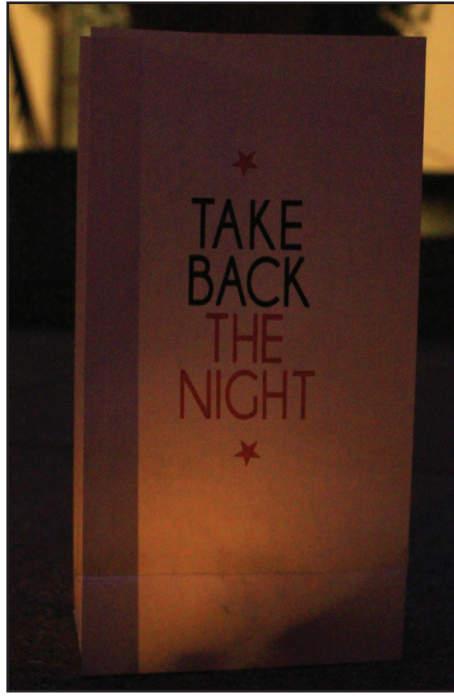


Photo Courtesy of Jenny He

TechStock: A Battle of the Bands and Music Festival



The 818s



The Seventh Season



MPR



Stellar Wings (second runner-up)



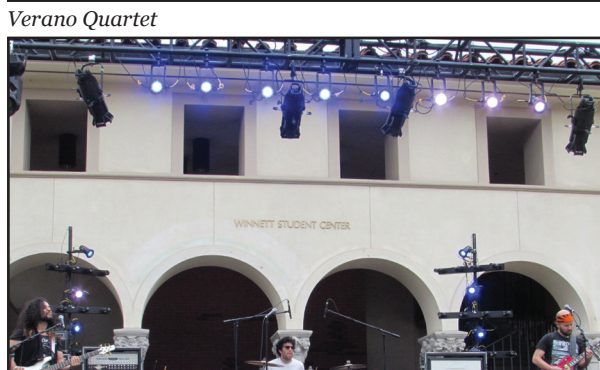
Chris Im and the Chris Ims



Verano Quartet



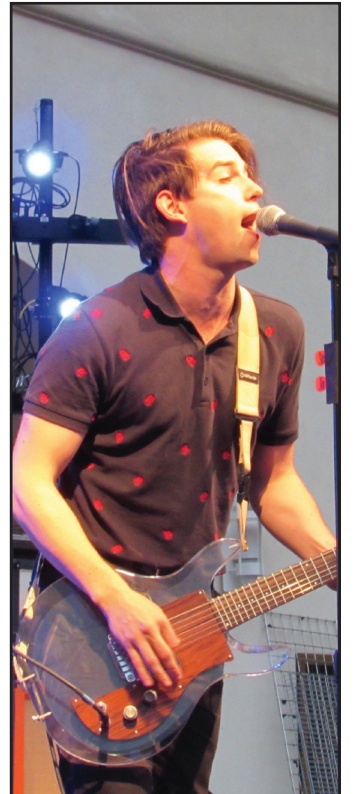
Coping Mechanism



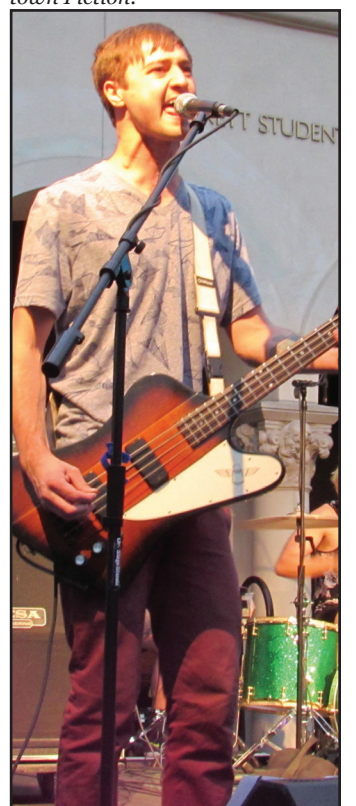
Hot Karate (winner)



Blown Out (first runner-up)



Cameron Leahy is the guitarist and lead vocalist for The Downtown Fiction.



David Pavluk plays bass and sings backup vocals in The Downtown Fiction.

Photos Courtesy of Neera Shah and Nehaly Shah

Men's and women's tennis honored with SCIAC Team Sportsmanship Awards

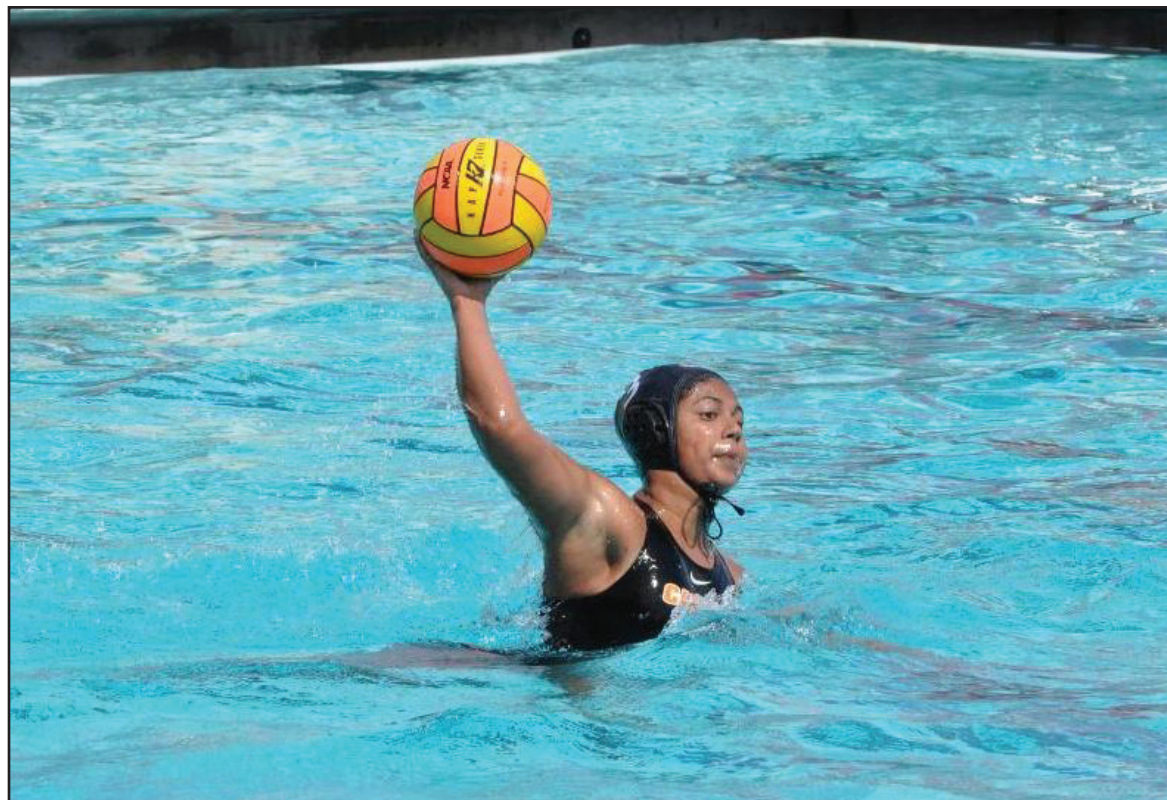
GOCALTECH.COM
Actual Sports Content Editor

PASADENA, Calif. (May 18, 2015) – The Caltech men's and women's tennis teams have both been recognized with the SCIAC Team Sportsmanship Award.

The SCIAC recognizes student-athletes from each varsity sport who have demonstrated outstanding sportsmanship in their respective sport. These student-athletes exhibit respect for themselves, teammates, coaches, opponents and spectators. Through positive action and leadership, these student-athletes inspire others to adhere to the quality of

sportsmanship the SCIAC and the NCAA endorse.

This continues an impressive record of sportsmanship within Caltech Athletics, as the Beavers have been recognized across nearly every sport, including multiple individual award winners in women's cross country's Stephanie Reynolds (Celia Peterson Award), men's soccer's Marec Serlin (Brine Award of Distinction), men's basketball's Bryan Joel (Ted Ducey Award), women's basketball's Bridget Connor (Ed Baldwin Award), volleyball's Meghana Pagadala, men's water polo's C.J. Culpepper, women's water polo's Shalini Majumdar and baseball's Ryan Casey.



Shalini Majumdar, seen here high-fiving the ball, has been named to the SCIAC Women's Water Polo All-Conference Sportsmanship Team. Good job, ball.

-<http://gocaltech.com>

Chris Bradley named to Academic All-District First Team



Chris Bradley looks oh-so-happy to have been honored.



-<http://gocaltech.com>

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Actual Sports Content Editor

GREENWOOD, In. (May 14, 2015) – Caltech men's water polo sophomore Chris Bradley (Half Moon Bay, Calif. / Serra) has been named to the Capital One Academic All-District Men's At-Large Team, which is selected by the College Sports Information Directors of America.

Bradley scored a program-record 131 goals this past fall, eclipsing the previous 28-year-old record of 117 and almost doubling his rookie output of 67, to earn Honorable Mention All-America honors. He led the team in scoring by nearly 80 goals while adding 27 assists, 25 steals, 30 exclusions drawn and a team-leading 17 field blocks. Bradley was also a member

of the program-record-setting 400 Free Relay in swimming & diving and joined the baseball team this spring, pitching nine innings and garnering 18 at-bats.

Bradley is the only sophomore included in the All-District Team. He has also been recognized on both the Fall and Winter SCIAC All-Academic Teams.

Student-athletes must maintain a cumulative, non-rounded 3.30 GPA, have completed at least one calendar year at the nominating institution and reached at least sophomore athletic standing to be eligible for nomination.

As a First Team honoree, Bradley will advance to the Capital One Academic All-America Team ballot, where first-, second- and third-team All-America honorees will be selected later this month.

Aditya Bhagavathi joins Capital One All-District Team

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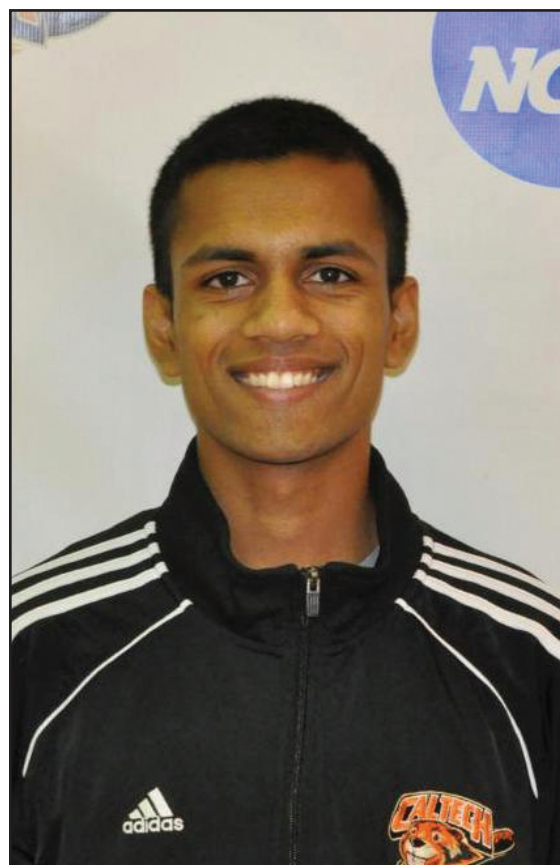
GREENWOOD, Ind. (May 22, 2015) – Caltech men's cross country and track & field junior Aditya Bhagavathi (Plainsboro, N.J. / West Windsor-Plainsboro North) has been named to the Capital One Academic All-District Team, which is selected by the College Sports Information Directors of America.

Bhagavathi set program records in the 8k for cross country (25:34.7) and the 5,000-meter run in both indoor (14:48.94) and outdoor (14:46.66) track & field, claiming the SCIAC title in the 5,000m. He was named All-West Region in cross country and qualified for the NCAA Championships, where he placed 139th. Bhagavathi also ran top-5 times in program history in the 1,500-meter run and 3,000-meter run, recording a Top-30 time in Division III in the indoor 5,000m. The two-time All-SCIAC honoree helped lead the Beavers to

their first SCIAC dual meet victory since 2011 in track & field and a tie for sixth place in the conference for cross country. He has also been recognized with USTFCCCA All-Academic and SCIAC All-Academic honors.

Student-athletes must maintain a cumulative, non-rounded 3.30 GPA, have completed at least one calendar year at the nominating institution and reached at least sophomore athletic standing to be eligible for nomination.

Bhagavathi is one of just two non-seniors to earn the prestigious honor and will advance to the Capital One Academic All-America Team ballot, where first-, second- and third-team All-America honorees will be selected on June 23. He is the second Beaver to pull in Academic All-District accolades, as men's water polo sophomore Chris Bradley (Half Moon Bay, Calif. / Serra) also earned recognition last week and awaits the results of the national balloting.



Aditya Bhagavathi actually looks happy to have been recognized.



-<http://gocaltech.com>

ASCIT Minutes

ASCIT Board of Directors Meeting

Minutes for 19 May 2015. Taken by Sean McKenna.

Officers Present: Cat Jamshidi, Jay Palekar, Sean McKenna, Kalyn Chang, Annie Chen

Guests: Lilly Luo

Call to Order: 12:05

President's Report (Nima):

- Absent

Officer's Reports:

- **V.P. of Academic Affairs (ARC Chair: Jay):**
 - Talked about peer tutoring and peer advising. Meeting with the Deans tomorrow to discuss further.
 - Erin Isaza is ARC Secretary.
 - Gabby Tender, Junedh Amrute, and Nikita Sirohi are new ARC Reps at Large.
- **V.P. of Non-Academic Affairs (IHC Chair: Cat):**
 - The new RevComm Chair is Anne Dorsey.
 - Went over our rotation plan went over with the administrators. There were some clarifications made about event approval for rotation-related events.
 - The IHC is talking about the board plan, and we're interested in hearing from students. If you have thoughts about any changes you'd like to see, please let your House President know.
- **Director of Operations (Sean):**
 - Debating whether to do a survey on undergrad card access. Anyone with opinions can email me at operations@donut.caltech.edu
- **Treasurer (Kalyn):**
 - Lilly Luo applied for event funding for BFP.
 - If Patrick and Kalyn have missed anybody's reimbursements, make sure to contact Kalyn at treas@donut.caltech.edu
- **Social Director (Annie):**
 - Puppies may be cancelled if Tom hosts a Dodgers' game outing on June 6th.
 - Working with Fleming and GSC on Techstock.
 - Annie is picking her Interim Social Director.
- **Secretary (Phillip):**
 - Will be scheduling interviews for ASCIT appointments at end of term.

If anyone has any questions or concerns about a section of the minutes please email the appropriate officer. We are happy to answer any questions. The next meeting will take place on **May 26th** at **12pm** in **Winnett Lounge**.

Meeting Adjourned: 12:27 pm

REMINDER FROM COUNSELING CENTER:

Meditation Mob

(drop-in mindfulness meditation group)
Meets every Tuesday, 12:00-12:50 p.m.
Bottom floor of Winnett

VICE PROVOST'S OFFICE HOURS

Professor and Vice Provost, Cindy Weinstein is holding office hours for graduate and undergraduate students. Professor Weinstein oversees the Council on Undergraduate Education, Caltech accreditation, the Staff and Faculty Consultation Center, Student-Faculty Programs, the Center for Teaching, Learning and Outreach and the libraries. She also has key involvement in diversity matters on campus.

Student Office Hours for Spring Term 2015:

Wednesday, June 3, 12 p.m.-1 p.m.

There are four appointments per hour.

Sign up the day of the meeting starting at 11:30 a.m. in 104 Parsons Gates, Vice Provosts' Offices (x6339).

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The advertising deadline is 5 PM Friday; all advertising should be submitted electronically or as camera-ready art, but *The Tech* can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at tech@caltech.edu. For subscription information, please send mail to "Subscriptions."

Techers enjoy food, music, dance at Battle of the Bands

NEERA SHAH
NEHALY SHAH
Editors-in-Chief

The Graduate Student Council, ASCIT and Fleming House teamed up to host TechStock: A Battle of the Bands and Music Festival on May 23. The Downtown Fiction, originally from Fairfax, Virginia, headlined the show after the Battle of the Bands.

The nine competitors in the Battle of the Bands were The 818s, The Seventh Season, MPR, Stellar Wangs, Verano Quartet, Chris Im and the Chris Ims, Coping Mechanism, Hot Karate and Blown Out. Each group (composed of graduate students, undergraduate students and/or Caltech alumni) played a nine-minute set for the first round of judging. The judges scored each band on sound, style and energy. The three judges were graduate student Dylan Tozier and undergraduate students Catherine Jamshidi and Nima Badizadegan.

The Verano Quartet was the most unique band as they played an instrumental piece and featured both violin and accordion. All other bands had vocalists and had punk rock, grunge, and/or rock influences.

A professional team was hired to provide the stage and sound equipment. The lights, sound quality and stage setup were well done and only added to the great music. With the help of student volunteers, Tom Mannion provided food for all attendees of the event: grilled burgers and hot dogs, snacks and soft drinks. Graduate students also had the opportunity to visit the "Bier Garten" to have a few drinks with their classmates.

Between sets, TechStock organizers, including graduate student Michael Post, interviewed the judges, asking random questions such as "What is your

ideal date?" The bands were also interviewed previously, and TechStock hosts revealed some of their answers to questions like "What Caltech president would you want to be in the audience today?" A push-up competition was also held to entertain the audience while bands set up onstage. Wes Dimond of The Downtown Fiction won the 30-second competition after doing 53 push-ups. Dimond competed against four others, including John Dabiri, dean of undergraduate students.

The top three bands — Hot Karate, Stellar Wangs and Blown Out — competed in a final runoff competition in which each group played a 12-minute set. A judge favorite, The Seventh Season, was given honorable mention. Scoring in the finals was slightly different from that in the first round, as in addition to one vote per judge, the audience contributed one vote based on applause. The second runner-up was Stellar Wangs, who won free Techstock bandanas. A prize of \$100 went to the first runner-up, Blown Out. Hot Karate won the grand prize of \$400.

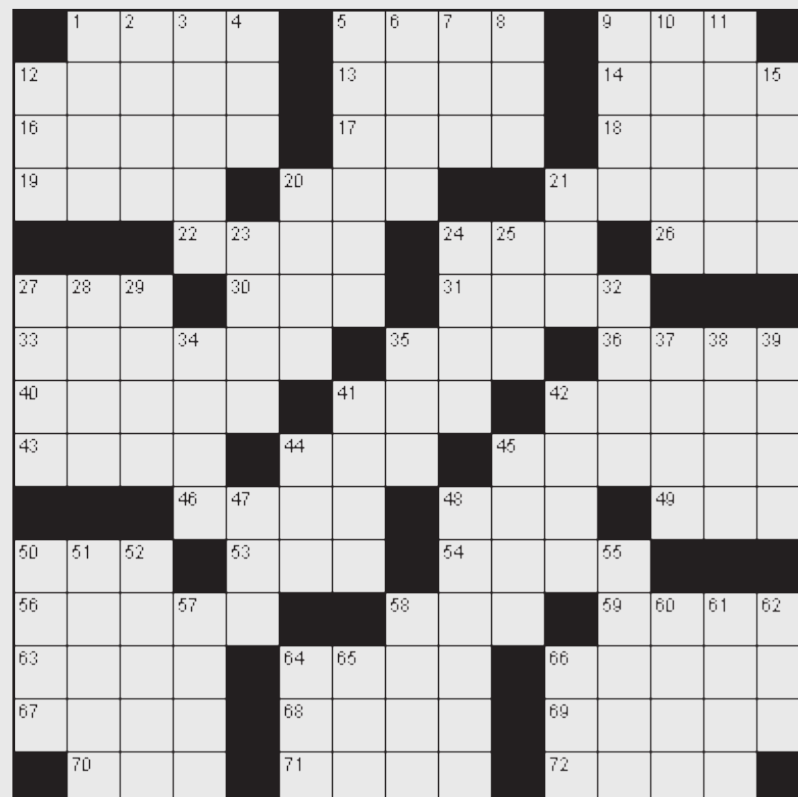
The Downtown Fiction played an hour-long set with an encore to top off the music- and dance-filled night. The band is composed of Cameron Leahy (lead vocals, guitar), David Pavluk (bass, backing vocals), Dimond (lead guitar, backing vocals), and Kyle Rodgers (drums). They started off the set with songs from their most recent album, *Losers & Kings*, including "Someplace on Earth" and "Hope I Die on a Saturday Night," saving classics like "She Knows" and "I Just Wanna Run" for the end. Students even had the chance to dance on stage with the band during the last song, and managed to convince the band to play an extra song after screaming for an encore.



(From left) Andy Zhou and Harrison Miller competed in the Battle of the Bands as part of the group Blown Out.

Photo Courtesy of Neera Shah

Crossword



-<http://puzzlechoice.com>

Across

1. Regular hexahedron
5. Part of the Roman calendar
9. Globe
12. Inclined to anger or bad feelings
13. Part of a church
14. Kind of tide
16. Debate
17. Ship's company
18. Instance
19. Musical notation
20. Female deer
21. Right-hand page
22. Strong and sure
24. Health resort
26. Party for women only
27. Any high mountain
30. Fish eggs
31. Long plaintive cry
33. Gait of a horse
35. Partially opened flower
36. At the peak
40. Vast body of water
41. Point
42. Legendary creature

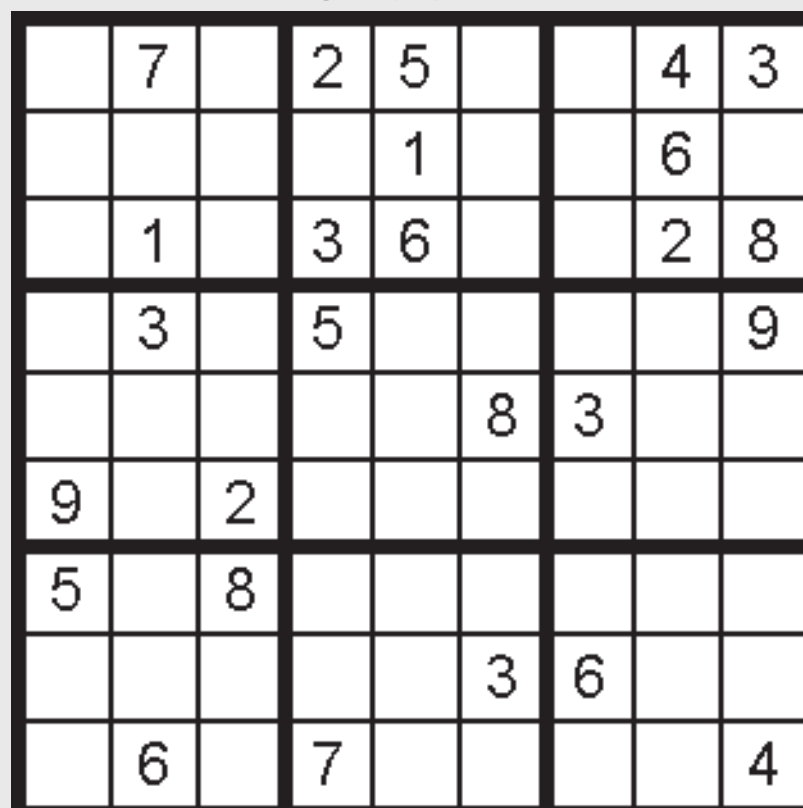
43. Cogwheel
44. Discharge a debt
45. Boarder
46. Traditional Highland dress in Scotland
48. Small vegetable
49. Colony insect
50. Historic period
53. Cereal grass seed
54. Aura
56. Untrue
58. Insane
59. Any of the main branches of a tree
63. Berserk
64. Mane
66. Shinbone
67. Mature
68. In addition
69. Occurrence
70. Novel
71. Military dining room
72. Following

Down

1. Ringlet
2. Exhort
3. Deception used in poker
4. Oculus
5. Revenue
6. Challenge
7. The night before
8. Darn
9. One time only
10. Range
11. Cover with liquid before cooking
12. Pouch
15. Drudge
20. Vertical fall
21. Uncooked
23. Metallic element
24. Close
25. Seed case
27. Highly excited
28. Decorative woven fabric
29. Supplication
32. Bring ashore
34. Songbird
35. Young male person

37. Worn in ancient Rome
38. Portent
39. Saucy
41. Meeting arranged in advance
42. Target
44. One of the strands twisted together to make rope
45. Travel in front of
47. Anger
48. Lighthouse
50. A great distance
51. Street urchin
52. Run away to marry
55. Mediterranean fruit
57. Skid
58. A failure to hit
60. Wild goat
61. As if new
62. Nocturnal mammal
64. Amateur radio operator
65. Beer
66. Decimal base

Sudoku



-<http://puzzlechoice.com>

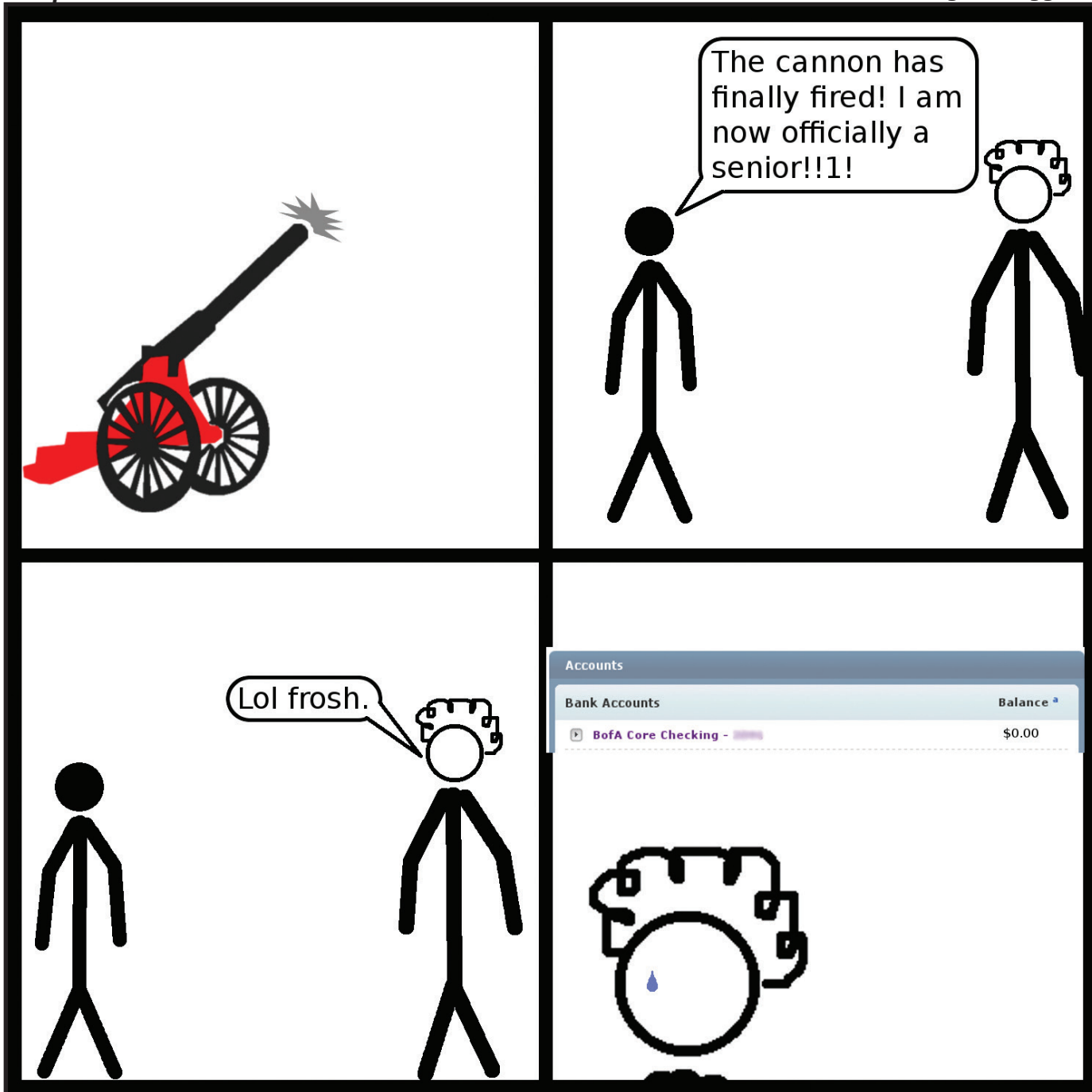
Acquired Taste

Dr. Z



"I am a better person than you because I spent more time at Caltech"

Georgio Kraggman



Answers to previous Sudoku

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

-http://puzzlechoice.com

Answers to previous crossword

S	T	A	R	A	D	A	G	E	S	W	A	T	
P	A	C	E	F	O	C	U	S	P	I	L	E	
A	U	R	A	T	O	N	I	C	I	D	L	E	
S	P	I	L	L	R	E	D	O	N	E	O	N	
M	E	D	I	A	N	E	R	R	A	N	T		
		S	W	I	F	T	T	I	C				
S	E	E	M	N	A	I	L	C	H	I	L	D	
O	A	R	D	E	R	R	I	C	K	L	E	E	
B	R	A	V	O	M	E	M	O	P	L	A	N	
		I	M	P	D	E	L	T	A				
		G	E	N	E	R	A	T	A	N	D	E	M
T	E	X	T	I	B	I	S	B	A	R	G	E	
R	E	I	N	V	O	C	A	L	C	A	R	T	
I	S	L	E	E	V	O	K	E	E	W	E	R	
P	E	E	R	T	E	N	E	T	A	L	T	O	

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