

The California Tech



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Caltech Men's Basketball attended the Caltech/Oxy Thanksgiving Classic over Thanksgiving break, finishing with a loss to Stevens Institute of Technology and a win against the University of Dallas. This puts them at a 2-2 record for the season thus far, making it their best start to a season since 1997. Pictured above is sophomore Todd Cramer, mid-shot in a closely lost game against Vanguard College.

- gocaltech.com

Techer alums work to decode intelligence

SANDHYA CHANDRASEKARAN
News Editor

As Techers, we take pride in our cognitive ability and intelligence. While we may not consider ourselves different on a fundamental level, past studies have shown that a person's IQ

may have a genetic basis, and research currently underway at BGI Cognitive Genomics seeks to elucidate this theory.

Overview

BGI Cognitive Genomics is an interdisciplinary research group at BGI (Beijing Genomics Institute), which has quickly grown to become one of the largest genomics institutes in the world. By using the rapidly developing tool of DNA sequencing technology, the group

hopes to answer questions about how the brain functions, how genes affect cognitive ability, and how genes and the environment interact to produce human intelligence and personality. Recently, the team launched a new project: "A Genome Wide Association Study of Intelligence". The study makes use of the empirically demonstrated correlation among performance on different cognitive tests to define a parameter called the General Factor of Intelligence, or *g*. This *g* has shown to be not only stable, but also heritable on multiple accounts. Additionally, *g*

has a sort of predictive power, as it positively correlates with academic and job performance, income, and longevity when other variables such as social class are controlled. The study ultimately seeks to find a moderate fraction of the genes associated with variation in *g*.

The Caltech Connection

The project hits closer to home than one would imagine. Steve Hsu and Christopher Chang, both Techer alums, are integral members of this initiative. Both Hsu and Chang had been following the

subject of measuring knowledge, abilities, attitudes, personality traits, and education, more formally known as 'psychometrics' for a very long time. Hsu explains, "This study is something I had been thinking about since I was a kid. I've been waiting impatiently for the technology to get to the point where we could do it. I was going on sabbatical in Taiwan last year, and noticed a bunch of press coverage -- big articles in Nature and the Economist -- on this new, ambitious genomics lab in China.

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News briefs from around the globe

Helping readers burst out of the Caltech bubble

Need to know

< **100** words about the world this week – topics sorted from good to bad

by Sam Barnett – links to full stories available at barnett.caltech.edu/news

New shopping record

\$ 52.4 billion

Black Friday weekend sales – 226 million consumers [\[CNN\]](#)

Mars rover launched

1,982-pound robot to look for signs of life – cost \$2.5 billion

[\[USA TODAY\]](#)

Basketball season saved

66 games (versus 82) – players, owners will split revenue 50-50

[\[NY TIMES\]](#)

Sanctions against Syria

19

(of 22) Arab League nations vote to limit trade with Syrian regime [\[CNN\]](#)

Misspent financial aid

\$ 5.3 billion

(> 20%) given to students who do not need help [\[USA TODAY\]](#)

Rising violence in Iraq

≥ 11

killed in recent bombings as US forces prepare to withdraw [\[NY TIMES\]](#)

Political tension in Egypt

42

protesters killed – 3,250 injured – elections forthcoming [\[CNN\]](#)

Food with Mannion!

*Do you like eating food?
How about free food at nice restaurants?
Ever want to tell the world exactly what you think of
said food?*

The Tech will be beginning a new column to chronicle the foodie experiences of new writers every other week... The Catch: They'll be going head-to-head with Tom Mannion who will be reviewing the same restaurant. If you have ever thought you were more of a gourmand than our resident master chef, now's your chance to prove it!

Email us for a spot on the list at tech@caltech.edu

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Write articles for the Tech

get paid up to \$30

CHILLAX - A relaxation group for stress management

Mondays 12-1; October 24 – November 28, Winnett Lounge
FREE

Health education and the counseling center are proud to sponsor a 6 week to educate and teach students how to manage their stress. The group will cover time management, muscle relaxation, getting great sleep, mindfulness meditation and dealing with holiday and exam related stress. Lunch is not provided but there will be participation prizes and giveaways.

November 28 – Coping with holiday and exam stress

Are you stressed about finals? What about going home for the holidays? If yes, this final stress management group is for you. Come join Chillax, Monday November 28th from 12-1 in Winnett Lounge.

This will be the final class of this series. Prizes awarded to any participant who has come at least 3 times.

Feynman teaching award nominations

NOMINATE YOUR FAVORITE PROFESSOR FOR THE FEYNMAN TEACHING PRIZE!!!

Here's your chance to nominate your favorite professor for the 2011-12 Richard P. Feynman Prize for Excellence in Teaching! You have from now until January 2, 2012 to submit your nomination package to the Provost's Office to honor a professor who demonstrates, in the broadest sense, unusual ability, creativity, and innovation in undergraduate and graduate classroom or laboratory teaching.

The Feynman Prize is made possible through the generosity of Ione and Robert E. Paradise, with additional contributions from an anonymous local couple. Nominations for the Feynman Teaching Prize are welcome from faculty, students, postdoctoral scholars, staff, and alumni.

All professorial faculty of the Institute are eligible. The prize consists of a cash award of \$3,500, matched by an equivalent raise in the annual salary of the awardee. A letter of nomination and detailed supporting material, including, but not limited to, a curriculum vitae, course syllabus or description, and supporting recommendation letters

should be directed to the Feynman Prize Selection Committee, Office of the Provost, Mail Code 206-31, at the California Institute of Technology, Pasadena, California, 91125. Nomination packages are due by January 2, 2012.

Additional information including guidelines for the prize and FAQ may be found at <http://provost.caltech.edu/FeynmanTeachingPrize>. Further information can also be obtained from Karen Kerbs (626-395-6039; kkerbs@caltech.edu) or Stacey Scoville (626-395-6320; staceys@caltech.edu) in the Provost's Office.

Hsu, Chang seek link between genome and intellect

Continued from page 1

So I contacted them about possibly doing the study. They were interested and we put together a team of people to go there and give a set of lectures on the subject."

Meanwhile, Chang had been a loyal follower of Steve's blog for a long time prior, and when news of such a study reached him, he was more than eager to jump on board. Interestingly enough, both Hsu and Chang completed their educations in specialties markedly different from the psychometric project they are currently pursuing. Hsu has a strong background in theoretical physics; he is a professor at the University of Oregon doing research on particle theory and cosmology. He was also a startup founder in Silicon Valley and almost went into quantitative finance like his Caltech roommates, prior to his career in academia. Chang has more of a mathematical rearing – first a software engineer at Microsoft after his undergraduate education, he eventually pursued mathematics in his graduate studies and went on to work for a genetic screening startup doing statistically-laced programming. Chang is also a veteran of high-end academic competitions: a US IMO Gold Medalist in high school, he represented Caltech on its Putnam and ACM programming teams.

However, according to Hsu, one thing that both he and Chang "have a feel for, after being in academia and industry for some time, is to what extent one can measure brainpower and make (statistical) predictions using test results. That plays a big role in this research."

Hsu serves as a scientific advisor on the project, with Chang heading the project at BGI in China. The team has a moderately-sized headcount in China as well. Since the project is relatively new, having only officially begun in October 2010, the group is currently working together to recruit participants for their "high cognitive" group.

Participation in the Study

Hsu elaborates, "We're recruiting participants who are willing to be genotyped. The study aims to find systematic differences in the genetic makeup of people with high cognitive ability and a control population of ordinary people. The hardest set of participants to round up, of course, is the 'high group.' That's why we are focusing efforts at places like Caltech, where about half or more of the population probably qualifies."

In order to participate, the volunteer would first need to register on the site and fill out the accompanying volunteer survey. Based on the survey responses,

qualifying participants would then receive a saliva kit, small and easy to use, in the mail. They would then return the kit via ordinary post.

The BGI website quotes three automatic qualifying criteria for participation:

- An SAT score of at least 760V/800M post-recentering or 700V/780M (1995) pre-recentering; ACT score of 35-36; or GRE score of at least 700V/800Q (or a revised GRE score of 166V/166Q).
- A PhD from a top US program in physics, math, EE, or theoretical computer science.
- Honorable mention or better in the Putnam competition.

While these raw numbers are sufficient for eligibility, they are not necessary. They are simply meant to provide a ballpark for the sort of scores the study is targeting.

Not only is this process extremely straightforward, but there is also a cash incentive for Techers. For the next 90 days, the study will be offering \$35 to all new Caltech volunteers; in other words, each volunteer will be paid \$35 for about 30 to 60 minutes worth of work.

Broader Impacts of the Study

But, in reality, the study has much greater potential for change that extends beyond the

average college student wallet. Hsu highlights, "[Participants] are helping to answer an ancient scientific question, which could have important medical applications. In addition, they will receive their own genotype and tools with which to analyze it...

All participants will receive what is called SNP genotyping, similar to what 23andMe charges about \$200 for. In later stages of the study we intend to do (but cannot, at the moment, guarantee) more in-depth sequencing of the genome... Participants will, [consequently], learn interesting things about their ancestry, and potentially some things about health risks and predispositions."

Regarding the timescale for this undertaking of collecting and analyzing all the necessary data, Hsu comments, "We hope to finish well before 5 years from now... Future, studies should accumulate enough statistical power to identify a big chunk of the total genetic variance in g [over the next 5-10 years]. (This depends a bit on cost projections and technology, but it's a fairly conservative estimate.) This current study will hopefully identify some of the genetic variants that have the largest individual effects on g, but variants with smaller effect will require the future studies over the next 5-10 years that I project... Decreasing

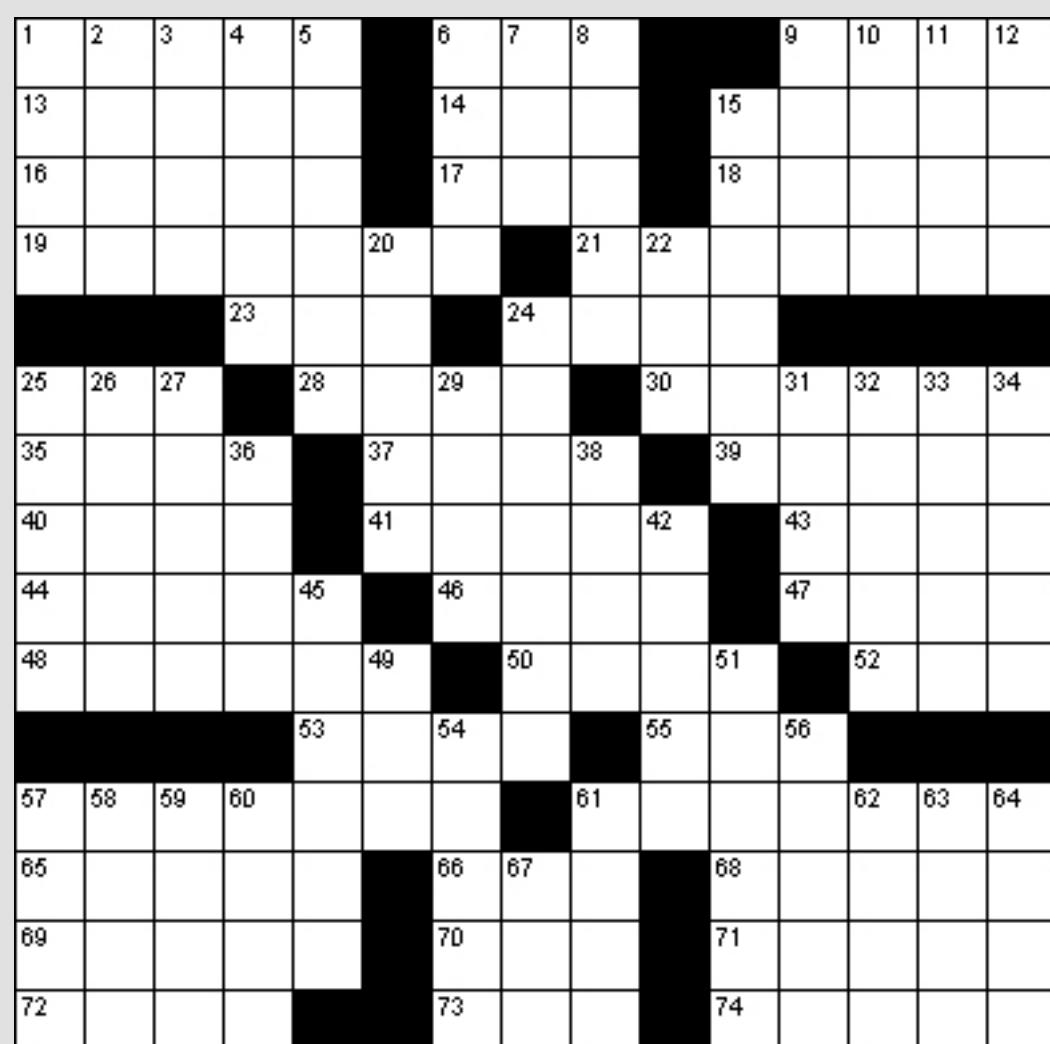
costs and improved technology [will also simultaneously allow for] 10x the statistical power of current state-of-the-art studies."

But what it really comes down to is how exactly this research will improve our understanding of cognition as we currently see it. Hsu has an answer, "Any gene which has a large effect on g probably is in a pathway that is important to brain function. Analyzing such pathways may help us understand conditions such as Alzheimer's. There are some interesting preliminary results relating g scores to diseases of this type. Note this is speculative -- we don't know what the practical impacts of our results will be [just yet]. At the moment it is pure science."

More Information

For more information on the study, check out the BGI Cognitive Genomics website at: www.cog-genomics.org. There, you can find more information about BGI, the research proposal for the study, privacy rights, FAQ, and participating. You will also be able to find a video and lecture slides from Hsu's Google Tech Talk on this study from a few months ago. The team plans to give another talk in the Genetics department at Harvard Medical School, and will be recruiting at MIT and Harvard.

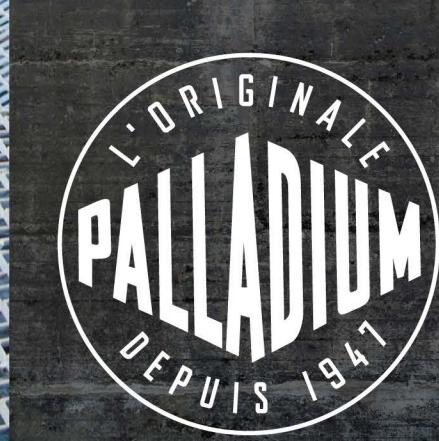
Today's Puzzle: Crossword



Across		
1. Empty area	53. Travel by horse	15. Heavy
6. Distilled from fermented molasses	55. By way of	20. Mad
9. Slipped	57. Violent disorder	22. Cover
13. Female	61. Bearing	24. Analgesic
14. Employ	65. Be of use to	25. Infatuation
16. Slack	66. Paid athlete	26. Main artery
17. Mentally responsive	68. Bolero composer	27. Type of roll
18. Was seated	69. Barrier	29. Fleece
19. Ruler	70. Gratuity	31. Worn in Ancient Rome
20. Passed by in time	71. Form of quartz	32. Construct
21. Old salt	72. Long and difficult trip	33. Gaze
23. Desiccated	73. Garden tool	34. Triplet
24. Taxied	74. Gumption	36. Distribute cards
25. Chess piece		38. Withered
26. Hate		42. Depart
27. Highway		45. Team spirit
28. Menageries		49. Hairpiece
29. Direction		51. Crown-like headdresses
30. Exhort		54. Profundity
31. Alpine call		56. Proverb
32. Equipment		57. A flat float
33. Diffused boiling water		58. Affirm
34. Harp of ancient Greece		59. Head of hair
35. Land measure		60. Select
36. Consecrated		61. Expect with desire
37. Orderly		62. ___ the Terrible
38. Golfing peg		63. Catches
39. Measuring instrument		64. Mirth
40. Cleansing material		66. River of January, in short
41. Pieces of lumber		
42. Small island		
43. Action		

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Dispatches from the cultural front: Laszlo Fassang

CASEY HANDMER
Staff Writer

Last Sunday noted Hungarian organist Laszlo Fassang gave a recital at Walt Disney Hall in downtown LA, and I was fortunate enough to be in attendance. A former student of Olivier Latry (who is due to give a recital here on February 19th) at Notre-Dame de Paris, Fassang has distinguished himself over the last decade in both recital and improvisation. Organ improvisation is an art that dates back centuries, even millennia, to the origins of its precursor, the *hydraulis*, in Ancient Greece. In particular, several Parisian churches and organs have dynastic compositional and improvisational traditions stretching back to perhaps the greatest organ builder of all time, Aristide Cavaillé-Coll, who revolutionized the capabilities of the instrument contemporaneously with the Frenchromantic period. At Église Saint-Sulpice, there were Widor and Dupré; at Notre-Dame de Paris, Vierne was followed by Cochereau, Lefebvre, and Latry; at Église de la Madeleine tenured organists included Lefébure-Wély, Saint-Saëns, Dubois, and Fauré; at Basilique Ste-Clotilde there were Franck, Pierné, Tournemire, and Langlais. More familiar artists from this period include Chopin and Liszt, who also wrote for the pipe organ.

As I had recently attended the recital of Cameron Carpenter, I was already familiar with the rather formidable capabilities of the instrument we have here in Los Angeles, and anticipated the program with an excitement bordering on the pathological. Fassang opted to play a series of pieces based on the B-A-C-H theme (B-flat, A, C, B in modern notation), which was used as a

musical signature in hundreds of J.S. Bach's own compositions, providing a narrative for a journal through a few hundred years of subsequent musical thought and invention. Serendipitously, Fassang began his recital with the same piece as Carpenter, the Bach Toccata and Fugue in F Major, BWV 540.

began by explaining that he was playing the pieces out of their numerical order for the sake of musical cohesion, a choice that also helped place them in the context of the entire recital.

Rounding out the first half was Reger's Fantasy and Fugue on B-A-C-H, Op. 46. Although he died

opera "Le prophète". Composed as a private meditation by Liszt during his pilgrimage in Weimar in 1850, it was eventually published despite almost no demand for such a challenging work, and received its premiere performance five years later. Composed of three sections and lasting almost half an hour, it

intermission, audience members had written suggestions for themes on which to base the final item of the program, a hotly anticipated organ improvisation. Several members of the audience drew the raffle while Fassang read the results and placed the slips of paper on the console music stand. Organ improvisation

is an anachronous art, surviving despite its death in the classical performance of nearly every other musical instrument. Creativity and coordination combine to mix both old and new musical ideas, construct a coherent piece of music, and perform it in real time. For those who love to watch figure skaters crash, there is a certain nail-biting element here also, since one misplaced finger or toe can be all it takes to destroy a musical line developed over seconds or minutes. Fortunately Fassang combined a generous dose of natural talent and study with the best in the business to deliver a quarter hour every bit as interesting as a meticulously and laboriously constructed piece of music. It is no secret in organ circles that many of the most famous pieces of music were initially improvised and only later recorded or transcribed.

Fassang gave one encore, on the theme of the Walt Disney Concert Organ. He showed off some of the more unique aspects of the instrument, including bells and other percussive stops, weaving the whole lot together into the musical equivalent of a braided sausage: consistently textured, meaty, rich, and topologically non-trivial.

Denizens of LA are fortunate to have both such a spectacular instrument and a well-organized celebrity recital schedule to make use of it. I look forward to future recitals with the sort of interest I ordinarily reserve for free food and pass/fail grading.



- laphil.com

Unlike Carpenter, Fassang played it in its original key, and did a reasonable though not spectacular job of warming up the instrument, the crowd, and himself.

Following the requisite sacrifice to the unimpeachable master of organ repertoire and probably music in general, Fassang left Bach and wisely skipped the renaissance period entirely. Next up was Schumann: Four Fugues on B-A-C-H, from Op. 60. With a shift in texture from polyphonic to symphonic, Fassang's Hungarian- and French-trained musical sensibilities came to the fore. He

young, Reger was a prolific composer and musical experimenter. In tandem with the extraordinary versatility of more modern pipe organs, this piece was a quarter-hour of grinding counterpoint, symphonic texture and musical flow plucked by Fassang from the roaring instrument with dexterity and taste.

Following an intermission in which to catch our breath, we were treated to a rather rare performance of Liszt's gargantuan work Fantasy and Fugue on the Chorale "Ad nos, as salutarem undam", adapted from Meyerbeer's

abounds with musical contrasts and is epic in scope. While perhaps not as coherent or consistent as the archetype recording done at the Sydney Town Hall Grand Organ (Hill & Son 1886-89, 5m., 127 sp. st., tubular-pneumatic/Barker lever) by David Drury in 1993, Fassang nevertheless contended stoically with the herculean difficulties presented by the piece and in the end triumphed to rapturous and well-deserved applause. While Fassang took a short break to mop his brows, he was approached by a member of the crew carrying a basket of papers. During

Dispatches from the cultural front: Laszlo Fassang

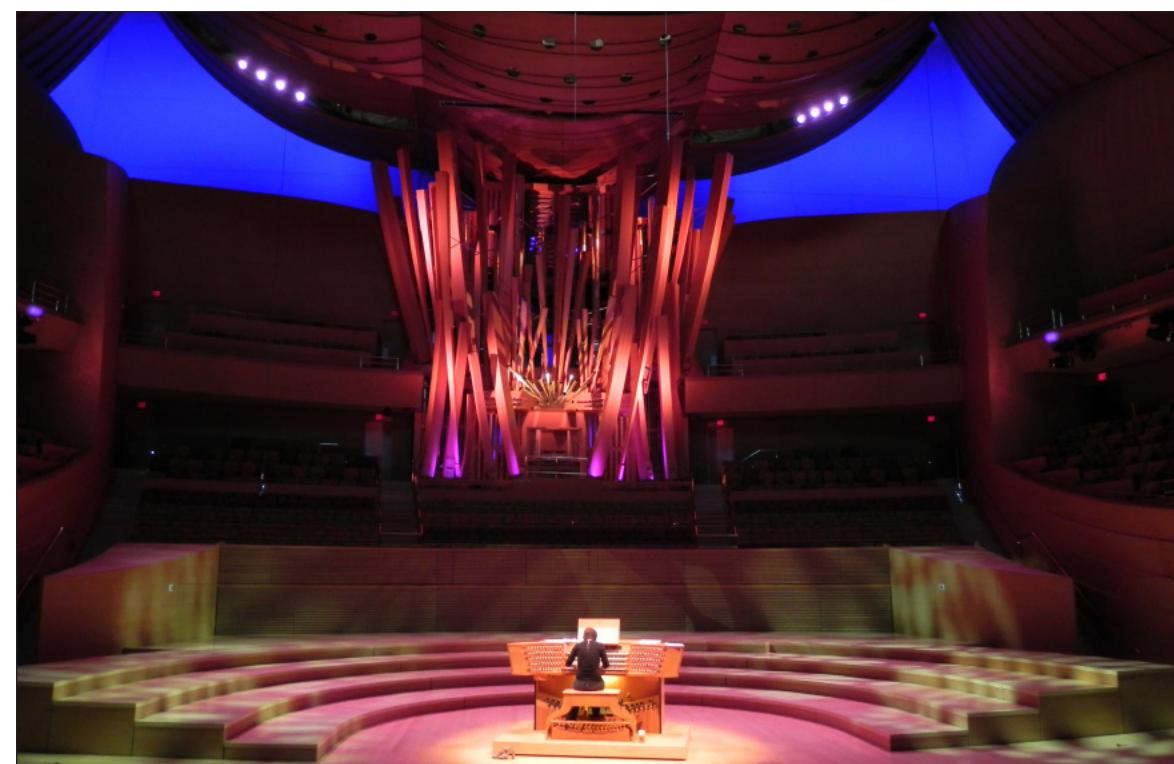
PROF. THOMAS NEENAN
Lecturer in Music History
and Music Theory

Members of Professor Neenan's music history and music theory classes got a behind-the-scenes look at the famous "French Fry" Organ at Walt Disney Concert Hall during a post-concert tour on October 30.

Once per term the Dean's Office and H & SS sponsor a field trip to a concert by the LA Phil for students enrolled in the music courses. At the October 30 outing the organ was used to great effect in Richard Strauss's tone poem, "Also sprach Zarathustra" ("Thus spake Zarathustra").

Neenan is a personal friend of the builder of the organ, Manuel Rosales, and the organ's Conservator, Phil Smith.

Both were on hand to meet the Techers and explain how the



Conservator Phil Smith plays Walt Disney Concert Hall's "French Fry" Organ for Techers.

- gocaltech.com

organ gets its wind and how the combination of pulling one of the 70+ stops and pressing a key activates one of the approximately 6,500 pipes.

The organ's famous facade, which many liken to the appearance of a bag of French fries, contains less than 200 pipes, almost all of which work.

Behind the facade, however, are five large rooms, going up more than 60 feet, open in the front and on the sides, that contain the other pipes.

Phil Smith played some of Bach's brilliant "Toccata and Fugue in D minor," demonstrated many of the stops - which sound at frequencies ranging from 16hz to over 2,500 hz - and also used some of the "effect" stops that include harps, chimes and even a "Nightingale" which "chirps" when air is blown through a spinning pipe into a bucket of water.

In defense of Houses: In response to Sarma, Kondos

MACKENZIE DAY
Contributing Writer

In light of the impending hazing policy and recent discussion about Caltech student life, I would like to make something abundantly clear: the House system is an overwhelmingly positive influence on students and student life at Caltech.

As many recent articles have pointed out, a substantial number of students come in to Caltech with underdeveloped social skills. Anyone trying to deny this needs a serious reality check. Imagine Caltech without the House system. For the sake of argument, let's assume the students with average or better social skills would do just fine. These students make friends easily and are able to quickly develop their own support network within the first few weeks of their freshmen year of college. I am not interested in these people.

I am interested in the students with less than average social skills. Those students who perpetually make a bad first impression, or struggle with making conversation. We have all been through rotation. We have all received dozens of limp handshakes and endured conversations with inappropriate comments or awkward silences. Imagine these people, without the House system, trying to make friends in their first weeks of college. Add to that a workload possibly greater than any they have faced before, possible homesickness, and newfound independence. What about roommates? Assuming we don't assign them randomly (and I think we can all agree how terrible an idea that would be), how difficult is finding a good roommate if you can't have a decent conversation?

Perhaps at this point you are thinking that I am being too harsh. You're thinking that, honestly, no one is so socially incompetent that they would flounder this much in their first weeks at Caltech. Maybe you're right. Then again, maybe you're wrong. The point is, adjusting to college, let alone Caltech, is much more difficult if you lack social confidence or ability. To compensate for this, we have Houses.

and out's of other Houses. Again, for the sake of argument, let's assume that, though not identical, the Houses all work roughly the same way.

There are many reasons why I love my House. The people are amazing, the traditions are fun and bring us all together, the doors are always open. I could go on. But loving my House and housemates and recognizing that the system is a huge benefit are different things. Most of the incoming freshmen don't know anyone else at Caltech. Being placed in a House allows several things to happen very quickly. First, the House provides a community of people to serve as a friend base. These people choose you and you choose them, so all the freshmen are automatically off to a good start. Additionally, having this community of intermixed upperclassmen and underclassmen provides easy access to the resources upperclassmen provide.

Whether that is advice on what class to take or knowledge of what food is available at 3 am, the upperclassmen are a vital resource to freshmen. Also, because these people choose one another they are more forgiving of the social faux pas that come up because of underdeveloped social skills. If instead people were randomly assigned to live near or with someone who struggles with social niceties, I imagine they would be much less forgiving.

The House traditions further bring people together. Getting to know someone while doing homework in the lounge is nice, but it's not the same as getting to know them while playing an interhouse sport, or carving an Angry Bird on a pumpkin. These traditions bring people together with unusual challenges that strengthen friendships, but wouldn't be possible in a normal college dorm.

The Upperclass Counselors (UCCs) use the House system to their advantage. This is the most important part of the House system as far as the wellbeing of the freshmen is concerned. In Lloyd, each alley has its own UCC, and each UCC is responsible for the wellbeing of the people in his

These people go out of their way to make sure that the freshmen feel welcome, and are the first line of defense if that feeling ever changes. Don't like your UCC? No problem! Not only is your alley full of other upperclassmen, there are also seven other UCCs from which to choose, all of whom would be more than happy to chat about whatever's on your mind.

Would upperclassmen and UCCs be as effective a resource without the House system?

concerns are valid but not related to the House system. Karthik: you cited an example of a girl who felt alienated from some of her acquaintances after a breakup. This problem would come up in any situation where a couple shared mutual friends, and is not at all the fault of the House system. On the contrary, this is a failure of her UCC, not the system of Caltech housing. It is the duty of the UCC to ensure that she feels welcome in her own House, and if there

comments that demean women are not okay. I will never forget the day I had a shouting match with an upperclassmen when he said I only got into Caltech because I was a girl. I am not at all blaming the girls at tech for the disrespect they face, but I do hope that you and other concerned women on campus will continue to tell the other girls that they have to say something when they are made uncomfortable.

Secondly, as intelligent as our male colleagues all undoubtedly

“ Your House does not define you. If anything, it is the other way around. The House system exists to encourage you to make friends and provide you with a community of support. ”

Absolutely not. The community afforded by the House system facilitates the relationship between frosh and upperclassmen. The people in alleys are self-selected similar personalities who get along well. It would be much harder to develop the same rapport with individuals randomly assigned to your hallway. Maybe you get lucky. Maybe the UCC is just that good that he/she can connect with anyone. But let's face it: we're all human and even if you have excellent social skills this way is just better.

To you freshmen who did not end up in your top choice House: The House you got into wanted you.

You may not have been convinced that you were a good fit, but trust the upperclassmen because they know what they're doing. Beyond this, contrary to popular belief, it is very easy to change Houses if you really are a better fit elsewhere. In my Lloyd class of 2012 we gained one person from Avery and lost one to Page. Most of the underclassmen don't even know that this girl did not start as a Lloydie, and frankly, none of us care. Your House does not define you.

If anything, it is the other way around. The House system exists to encourage you to make friends and provide you with a community of support. If you don't find that in your current House, then

go hang out in a different one.

To address the concerns raised by Karthik Sarma and Christina Kondos in recent articles, your

are people preventing this, to get them to grow up and knock it off. Breakups are tricky, but they don't make the Houses a bad idea. By your logic, no one should ever date neighbors, colleagues, or friends.

Upon re-reading your other anecdotes I find your "evidence" doesn't show flaws in the House system at all. Even disregarding the fact that I think the anecdotes were in rather poor taste, troubles like this exist everywhere. The people you speak of and their issues are not due to the House system. If anything they are solved and dealt with via the support of the House system. Take the anecdote about building interhouse.

Here, a single upperclassman could have reminded the frosh that work is more important than interhouse. In the story of the "18 yo M" with low self esteem, you can't truly believe that the self-confidence issues of a freshman are due to the House system. The comment about how "everyone in the House seemed to hate him" is again a direct failing of the UCC. Yes, these people had trouble adjusting, but imagine how much worse off they would have been without the community provided by their House and the UCCs and Health Ads watching out for these issues.

Christina: I agree with you wholeheartedly that many of our fellow students are slightly naive when it comes to women. I too have been subject to what I considered sexual harassment and demeaning remarks about women. Find me any woman who hasn't. That said, we as women of Caltech must realize two things. First, we are just as culpable in perpetuating this behavior if we do not stick up for ourselves and let people know that

are, they are still 18-22 year old men. Simply biologically speaking, aggressive, testosterone-driven, 18- to 22-year-old men are not going to stop making sexist jokes just because a few of us disapprove. This is college. Guys do stupid things. That said, in my experience, most of them are very willing to talk and hear your point of view. If something makes you uncomfortable or mad or feel demeaned, talk to your friends, other women, your UCC, the RA.

Some people may disagree with you, but next time someone makes a joke they'll remember the conversation. And it goes both ways. For every joke I have heard that demeans women, I have heard just as many that make fun of men. Does that make it right? Of course not, but frankly we are all too intelligent to consider sexist jokes a symptom of the House system.

That said, there is a difference between a male chauvinist, a careless remark, and a harmful tradition. Is the House system perfect? No. Are there traditions that need to be reevaluated? Based on recent events, I would say yes. But I want to make sure that no one loses sight of the fact that the Houses at Caltech are a huge benefit to the students, particularly the freshmen.

Houses provide you with an immediate group of friends and an immediate support network. To those of you who disagree or have felt alienated within your House, that is a failing of your UCC, not of the system as a whole. For the overwhelming majority of us, Houses are great. Just in case this wasn't insanely obvious, I thought I'd put it down in writing. Please let me know if you disagree. I'd be happy to chat about why.

“ There are many reasons why I love my House. The people are amazing, the traditions are fun and bring us all together, the doors are always open. I could go on. But loving my House and housemates and recognizing that the system is a huge benefit are different things. ”

I am a full member of Lloyd and a social member of Ruddock. I have never lived in any other House, and will not pretend to know the in's

or her alley, including the four frosh per alley. It is the job of these people to help ease the process of adjusting to college and Caltech.

Caltech men's basketball team posts thrilling win in home opener

from gocaltech.com

PASADENA, Calif. — In a contest that featured 11 lead changes and seven ties, two clutch plays in the closing seconds proved to be the difference in a tightly played contest as Caltech pulled out a 63-62 win over Pacifica on Tuesday evening.

With 1:09 left in the game Bryan Joel gave Caltech (1-1) a one point edge at 61-60 by making the back end of two free throw attempts. Pacifica (0-4) grabbed the lead right back on their next possession with an Alex Brandon lay-up with 44 seconds left on the clock.

During the final Beaver possession a loose ball scramble with 14 seconds remaining heightened the game's tension.

A double technical foul on a held ball while Caltech was calling a timeout gave the home squad the ball out of bounds. Caltech worked the ball down low to Alex Runkel after the timeout who found a cutting Ethan Boroson for what proved to be the game winning lay-up.

The Gladiators got the ball to their leading scorer Brandon on their final possession. The junior pulled up on the right side from 15 feet but his shot was deflected

by Joel and Boroson grabbed the rebound as the buzzer went off.

Neither team held a lead larger than seven points the entire evening.

That seven point Caltech spread came late in the first half. During the final 10 minutes of action, Pacifica held a four-point edge twice which proved to be the largest lead either team posted in the closing moments of the high pressure affair.

Caltech used their long distance threats to start the game. Michael Edwards converted three shots from beyond the arc while Joel knocked home two from three-point land during the contest's first five-plus minutes. Pacifica's first half offense was effective down low as they posted a 26-18 edge in points in the paint. The teams went into the locker room knotted at 36-36.

Edwards led the evening's scoring attack as the junior went for 28 points on the strength of a 6-for-12 shooting effort from beyond the arc. In his first career start, Joel recorded a 12-point effort while dishing out a game high six assists. Runkel provided a valuable spark in the post with his first career double-double (10 points, 10 rebounds).



Caltech's Michael Edwards, junior, takes a shot against Pacifica University. The point of basketball is to put the ball in your basket as many times as you can and stop the opposing team from doing the same. Now you know that.

- gocaltech.com



Caltech's Sarah Wright prepares for the opening tip-off on Friday night vs MIT. The Beavers pretty much fizzled out after this point in the game.

- gocaltech.com

Caltech women's basketball team gets trounced by MIT

AMOL KAMAT
Sports Editor

This Week in Sports Quotes!

"You know, Beavers are nature's engineers..."

"Then why couldn't they beat the Engineers?"

"Well, I never said they were great engineers, just that they were Nature's God, this is why we can't have nice things."

In front of a huge crowd at Braun Gymnasium the MIT women's basketball team posted a mammoth win on Friday, defeating Caltech 100-26. The enormity of the loss was the latest setback to a team that has struggled with injuries and the loss of several key players.

The Beavers jumped out to a 6-3 lead in the first few minutes of the game, but soon found that both their offense and defense could not keep pace with the strong MIT lineup. The Engineers scored 31 unanswered points before Caltech's Rachel Hess scored on a layup with 6:08 remaining in the half.

Although the Caltech offense returned to some semblance of form, its defense remained elusive, and the half ended with MIT leading 62-12, much

to the delight of the largely MIT supporting crowd.

The Beavers failed to gain any momentum in the second half, scoring just 14 points while allowing the Engineers to score 38 en route to triple digits.

The rather abysmal affair did afford a few highlights. The game saw the return of sophomore Marlyn Moore, who has been plagued by a toe injury but still managed to score 5 points.

She and freshman Bridgette Connor also led the team in rebounds with four each. Junior Sarah Wright added seven points of her own before fouling out in the second half. Rachel Hess, once again, led the Beavers in points scored with 12.

The reasons for the loss are numerous. For one, the Engineers simply outplayed the Beavers, displaying great shooting skills and more defensive energy.

The Beavers seemed sluggish at times, although I'm willing to

blame Thanksgiving dinner for that. I'd like to blame the referees, who did a poor job, often calling nonexistent fouls and tips, but they probably only accounted for a few lost points. Perhaps most confounding is the fact that the Massachusetts Institute of Technology is more stressful than Caltech, but we could not capitalize on their far greater strain of everyday life (I use fact very loosely here).

Whatever the reason, the loss came as quite a shock to the Beavers.

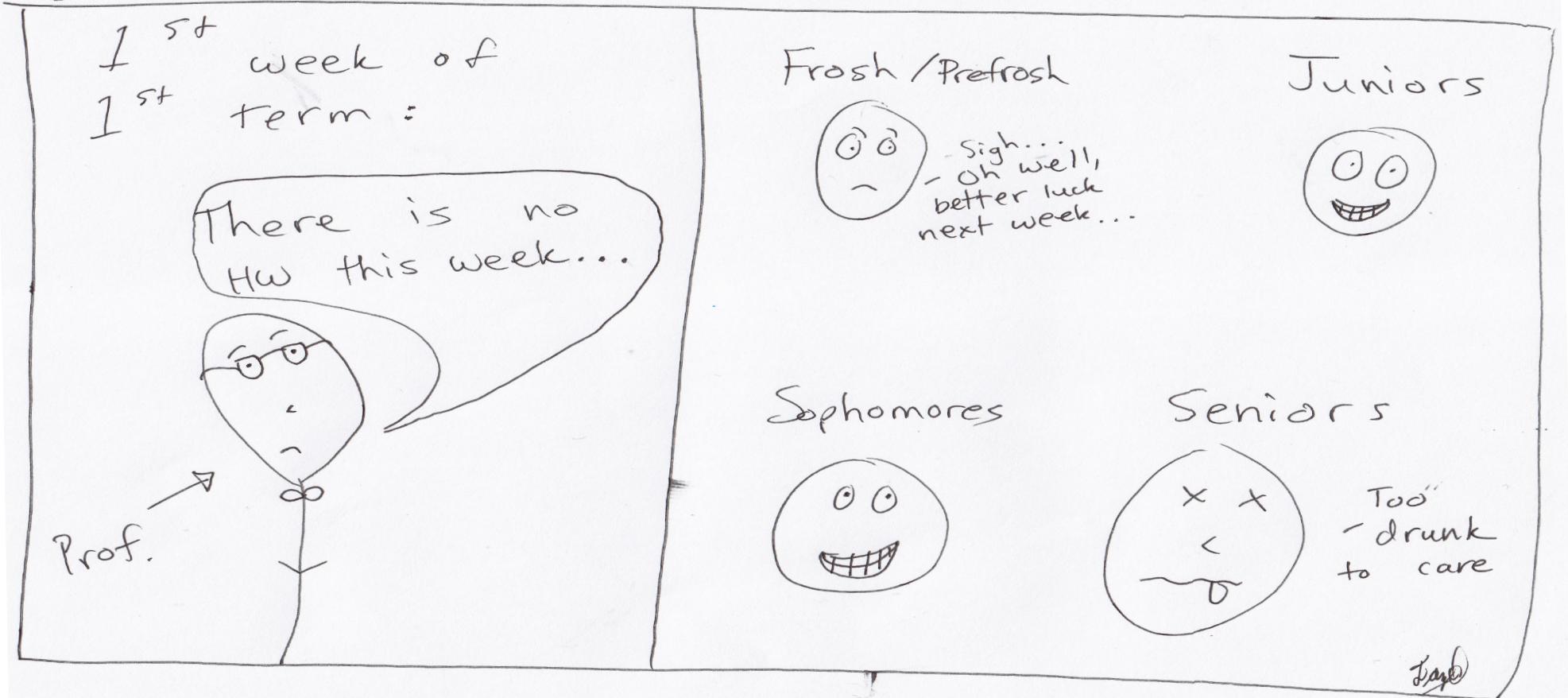
Said one Caltech fan: "Oh, wow."

Said another: "[expletive]."

Said one MIT fan: "What is this for? I don't want my name all over the internet because of this. I don't even like basketball."

Hopefully the Beavers will be able to rebound from this tough loss when they play Chapman on December 3rd.

Blackout!



By Po Ku



What is up with cauliflower?
It is just broccoli trying to be white.

For more photos,
videos, and archives
of previous issues,
check out the Tech
website!

tech.caltech.edu

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