The California Tech

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Over the weekend the Organization of Associated Students of the Indian Subcontinent (OASIS) held a celebration in honor of Diwali, the Hindu Festival of Lights, which fell on October 26 this year. The celebration included singing and dance performances as well as traditional Indian food. Pictured above is Bharathanatyan, a South Indian classical dance that intertwines complex rhythmic footwork with a story told through a series of distinct facial expressions.

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Caltech alumnus decodes moon's magnetism

MARCUS WOO
Science Writer

Tina Dwyer is fascinated with the moon. The former Caltech undergrad has been interested in astronomy and science ever since she was a kid, she says. But it wasn't until she did a Summer Undergraduate Research Fellowship (SURF) project at Caltech that her passion for the moon and planetary science ignited.

"My SURF project kicked my interest in the moon to high gear," she says.

She worked with professor of geobiology Joe Kirschvink and then-postdoc Ben Weiss on mapping the magnetic fields of tiny moon rocks—glass beads found in the lunar soil. "I spent two summers on that project, and it was awesome."

Then, in the spring of 2005, she took a planetary-interiors course taught by professor of planetary science Dave Stevenson. For the class, students had to do a small research project, and one of the suggested topics was about solving a decades-long lunar mystery: how did the ancient moon power its now-defunct magnetic field? "I grabbed onto that idea," she says.

Earth's magnetic field is powered by energy from its core, which causes the molten outer core to churn. Because the liquid outer core is primarily made out of electrically conductive iron, the fluid motions generate electric currents, which then produce a global magnetic field. The moon, however, is too small, so it doesn't have enough energy in its core to sustain a magnetic field. Scientists were puzzled, then, when the Apollo astronauts brought back magnetic moon rocks, which could only arise in the presence of an ambient magnetic field. Since then, researchers have been trying to come up with a satisfying explanation. "For 40 years, people have been sitting there, scratching their heads, going, how do we do this?" Dwyer says. For her research project, she proposed that instead of being powered by heat—like in the Earth—the moon's magnetic field could have been driven by the physical stirring of its liquid core. After graduating from Caltech in 2006, she went to graduate school at the University of Washington, where she studied experimental geochemistry.

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In this issue

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

Japan's economy expands	**1.5%** growth last quarter – pre-quake production levels cheered	[XINHUA]
Brazilian gang overtaken	**3,000** police rapidly seize area controlled by violent gang for decades	[AP]
Resignations in Europe	**2** economists replace outgoing Prime Ministers of Greece and Italy	[XINHUA]
Arab League bans Syria	**18** of the 22 nations vote to suspend Syria for violence against citizens	[AP]
Crews rely on Russia	$ **350 million** paid by US per year – astronauts blast off safely	[REUTERS]
Iran's nuclear program	**14** designs for long range missiles – UN releases alarming report	[NY TIMES]
Thai floods still devastate	**22** of the 77 provinces – 562 dead – government trying to drain water	[AP]

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

The California Tech

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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 *business@caltech.edu*. For subscription information, please send mail to "Subscriptions."

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 14 – *Progressive muscle relaxation.*

Do your muscles get tense when you're stressed or anxious? Come join us in Winnett from 12-1 and learn how to loosen up with progressive muscle relaxation. You're welcome to do the exercises while seated or lying down. If you'd rather lie down, please bring a pillow and a towel or blanket. See you there!

November 21 – *Mindfulness meditation*

November 28 – *Coping with holiday and exam stress*

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.

News update from Caltech Today

Researchers propose new theory for the moon's ancient magnetic field

Continued from page 1

Now she's pursuing her PhD at UC Santa Cruz, where she's returned to planetary science—and the research project she started at Caltech.

With Stevenson and Francis Nimmo of UCSC, Dwyer refined her earlier work, and the team has published their findings in the November 10 issue of the journal Nature.

"Our story ties in with ideas of how the moon formed and evolved in its orbit," Stevenson says. Earth's gravity pulls on the moon in a way that causes the moon's liquid core and mantle to spin around axes that are at a slight angle with respect to each other. As a result, instead of spinning as a single object, the core and mantle rotate separately. The differences in their motions are small today, but the moon—which is currently moving away from Earth at a rate of a few centimeters per year—was much closer to Earth when the lunar magnetic field existed a few billion years ago. Because of its closer distance, the gravitational interactions were more powerful, leading to a bigger difference in rotation between the core and mantle. Dwyer and her colleagues calculated that, in the past, the difference was pronounced enough to generate a magnetic field.Over time, as the moon drifted farther away, the difference in motion lessened, and the magnetic field eventually died. "The fact that we have a way to turn off the magnetic field is a very exciting aspect of this model," Dwyer says, although she stresses that more research—including the development of computer models to study the mechanism in detail—is necessary to show that the theory is viable.

> Earth's gravity pulls on the moon in a way that causes the moon's liquid core and mantle to spin around axes that are at a slight angle with respect to each other. As a result, instead of spinning as a single object, the core and mantle rotate separately.

Professor of the Month: Meet Prof. Patterson

SANDHYA CHANDRASEKARAN
News Editor

Fifteen years ago, Assistant Professor Ryan Patterson sat in the very same seats his students now sit in during his Ph1a lectures. Having been a Caltech undergraduate and a physics major, his understanding and relatability have allowed him to excel during his first time teaching introductory physics to Caltech's newest batch of freshmen.

But Patterson is not a novice when it comes to teaching. He tutored students as an undergraduate and had a few opportunities in graduate school to teach as a TA as well. At Caltech, he co-taught Ph2b second term last year with Professor Chris Martin.

However, Patterson notes some key differences between his previous experiences and his current position.

"A course like Ph1 is a big class and consists of students with a broad spectrum of backgrounds. Everyone has had some exposure to physics in high school, but at varying levels.

"Part of the goal as a professor is to make sure that the course material is useful to everyone."

Like the structure of Ph1a, Patterson reflects that the physics major as a whole hasn't really changed too much since he was a student here.

"Some of the advanced physics electives have changed, as they are more connected to the frontier of the subject matter, but the basic courses have stayed pretty much the same in their scope." Patterson acknowledges that he hasn't made too many far-fetched changes to the course in his first round.

Professor Patterson, a relatively new addition to the faculty of Caltech, was lauded by his freshman students for his clear-cut teaching style and approachable demeanor.

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> It doesn't do anyone any good if I blindly march through a lecture in a rigid way just because it's how I planned it; I try to stay flexible.
>
> **- Professor Patterson**

"Because Ph1a is an old course, it has been fairly well tested, and the text The Mechanical Universe provides a good overall structure."

But the course content is only one aspect of an engaging learning experience.

Patterson has several techniques for not only incentivizing students to attend his lectures, but to keep them excited about the course material. He explains, "I know that big lectures make it hard for students to feel like they can participate.

"If a student loses the thread of discussion in the first twenty minutes, the student will spend the next forty minutes being totally lost.

"To prevent this, I try to leave gaps in the flow to allow students to ask questions."

Patterson notes that the course has an advantage in terms of attendance because of the demos that can be done to keep students intrigued. Mechanical demonstrations, such as the well-liked water jug rocket representing Newton's Third Law, are well-integrated and paced in the lecture series. Also, Patterson ensures that every one of his students can take something from his lectures: "I try to make sure the lectures have a little bit for everyone. "I incorporate a couple of nuanced points for people with stronger backgrounds in the subject matter, but I also ensure that the basics are covered, too."

Student feedback is integral to Patterson's teaching style. He describes, "I try to get continual feedback about whether or not what I am doing is working. I keep an eye out for signals: whether students are glazing over, murmuring, asking questions, or writing furiously. It doesn't do anyone any good if I blindly march through a lecture in a rigid way just because it's how I planned it; I try to stay flexible. Even though it is hard to give personalized attention in lecture settings, it is important to ask for feedback and respond to it."

Patterson has already implemented some changes based on comments made at the ombuds meeting for the class, and has plans to make several more changes for next year. As he points out, "The point of teaching is to relay the concepts successfully. And the students are the true judges of that."

Based on the overwhelming number of nominations for Patterson as Professor of the Month, the verdict amongst the Caltech freshmen seems to be overwhelming approval.

A reception for Professor Patterson will be held on Thursday, November 17 at noon on the Olive Walk. This will be a great way to get to know what an amazing person he is. There will be free food, too!

A note from the editors on current state of affairs

In the past week, issues arising from hazing policy and punishment of members of House leadership have grabbed the attention of the majority of the Caltech community.

The California Tech strives to uphold its responsibility to inform our readers of the facts, while minimizing any personal bias or hearsay. We have therefore begun an effort to gather information from all available and relevant sources, including the administration and student leadership among others, in order to best formulate a holistic picture of events that have recently transpired.

While we have received a number of article submissions from current students and alumni voicing varied opinions concerning the issues at hand, we have chosen not to publish such articles in this week's *Tech*.

We realize that this may seem to be an unsatisfactory decision in the eyes of many who had hoped to use the student newspaper as a medium to gauge student response. It is our view that various House e-mail lists have already taken on this function. For now, we seek to only provide information with a factual basis, to allow students to form their own opinions. Once we are able to publish information that accurately represents all facets of the current situation, we will then feel comfortable publishing more strongly-worded opinons.

Throughout the past week, we have been in close contact with members of ASCIT and the IHC. They have assured *The Tech* that they would keep us abreast of any new developments. Further, we are awaiting a statement from the office of the deans, which we believe may help offer a different perspective than that to which most students have been exposed.

That being said, we still understand the importance of the newspaper as a venue for the common student to express his or her own personal views. We welcome and will consider for publication any submissions.

We would like to provide a well-rounded and informed portrayal of the events, so we would like these to be well-researched. However, it is certainly acceptable for the author to include their own perception of the events transpired as long as they specify it as an opinion piece.

Any sides of the issue are welcome; we are simply hoping to better inform the general Caltech community of the current state of affairs.

We at *The California Tech* have always tried to serve the Caltech community in the most appropriate way.

We hope to continue to do so in the future.

Caltech Couture: A student's take on fashion and life

ALEX LANGERFELD
Columnist

Tucked away in the beautiful south of France is a small town called Nîmes (pronounced "neem"). Some may know it for the Pont du Gard—the monumental aqueduct built by the ancient Romans under Agrippa to lead water to the province, or for the Maison Carrée—a square temple also built by the ancient Romans and well-studied in art history courses. Some may know it as a beautiful addition to their Mediterranean vacation. Yet, others may know it as the birthplace of denim.

It is widely believed that the word denim derives from "de Nîmes" which means "from Nîmes" in French because this coarse fabric may have originated there, probably to be used for sails.

I come from a very denim-conscious high school. Jeans were of the upmost importance to fashion-conscious students of both sexes. At the time, I didn't buy into this craze.

I did invest in a couple nice pairs and wore those a lot. This was nothing compared to the arsenal of name brand labels invading the hallways each passing period.

Girls would constantly sneak glimpses from the side of their eye to silently analyze and judge the kaleidoscope of colors and patterns present on the jeans of their peers. Guys would save up their lunch money to buy that oh so flattering pair of pants that fit them just right.

I appreciated this effort and commitment although it seemed somewhat ridiculous because jeans appeared to take up more energy than other activities.

And besides, there are other things to wear!

Something changed when I got here. For a while I was relieved by the lack of cut-throat fashion competition on this campus. I really could wear whatever style I wanted and I didn't have to worry about criticism.

However, it soon became clear to me that Caltech has taken the other extreme. I can wear the most ghastly, unflattering pair of sweat pants and barely anyone will notice. I can also strut in my newest pair that I am most proud of and barely anyone will recognize it or appreciate it.

Now I am ecstatic when I see someone on campus wearing a fair pair of pants.

In high school I had my own, fairly distinct style and I was recognized for it. People would notice outfits, comment, and we would exchange feedback.

Despite the trepidations I experienced every morning when I walked into class wearing something somewhat unconventional, I was always encouraged to keep my style going. Here, I've realized that I've lost the drive to wear my style due to the general lack of style on campus.

Once I realized this, I started bringing my high school mentality back to life and returned to being more daring.

So, as a tribute to my high school years, I'll introduce Caltech to some major denim brands (hopefully this won't be a first-time introduction for at least some people). While car brands have distinguishing features such as their rear lights, denim brands also have distinguishing features such as back and front right pocket designs. Most brands cater best to a specific set of body types and they have their own shapes that they create.

1.) *Levi's*

Originating in San Francisco during the Gold Rush, this brand has been around for a while. Levi Strauss patented the blue-denim jeans idea so we owe a lot to this man.

Levi's is both modern and all-American with many styles for many body types.

You can find Levi's jeans on the country gal, the cultured urbanite, the worker man, the partier, the parent, the student, and even the small child.

You cannot go wrong with this brand and some of their stores (such as the flagship store in San Francisco) make finding your size very easy with their tele-fit machine!

In short, when in doubt, go Levi's!

2.) *Wrangler*

All-American, this brand is what it sounds like. Hardy, great and reliable, but never dressy. Not much else to be said, unless you're a true cowboy or redneck. In that case, you'll have hours of praise to sing to these jeans!

3.) *Seven for All Mankind*

This brand should be engrained in your denim vocabulary. It makes great stylish men's and women's jeans that go from daily rounds to nights out on the town. They are comfortable and flattering for most body types. They will not make you look much slimmer than you are but they will straighten your legs out.

4.) *Lucky Brand Jeans*

This is one of my favorite brands but it can't take you very far past day-time and casual activities. It has a bit of a hippie vibe with elements of country. These jeans are very comfortable and look great on guys and girls. They work very well with coarse brown leather. This is a fun brand with fortune messages tucked into front pockets and messages of "Lucky You" on the inner lining of the fly. Also, the Lucky store has amazing semi-annual sales.

5.) *True Religion*

These jeans are great, but beware. Guys who wear them can instantly be recognized as male fashionistas (not a bad thing at all if done right).

Girls, True Religions aren't for everyone. If your thighs and booty are at all bulky, stay miles away from this brand.

Its trademarks are big stiches, enormous designs on the back pockets, and huge double inseams that curve almost 90 degrees to the front of your ankles.

When the right girl is wearing these, True Religions are priceless. However, if the girl is even just slightly off, these jeans are a disastrous mess that makes every slight imperfection look even worse. If you are not tallish, thin, fit and straight-legged, never wear these. If your butt is a bit low, not round enough, too round, if your knees aren't completely straight, if your thighs are visibly muscular, if you walk a little funny, if you're a bit short, then never, ever even think of these jeans. They will make your whole lower half look like a bulky, amorphous mess.

Guys, your life is easier here. These jeans can't unflatter you nearly as much as they can unflatter girls, so you may have to splurge on a pair to make the girls jealous!

6.) *Diesel and Miss Sixty*

I love these two brands. They are both modern, punk, stylish, and rebellious. Diesel is a popular Italian brand. It also has a deal with Adidas: most, if not all, Adidas denim is made by Diesel and don't worry, the tags of both brands are clearly visible on all of those jeans!

Diesel and Miss Sixty are youthful, targeted at energetic people who like to give everything an edge. Although pricey, they are a worthwhile investment. These jeans are flattering, go well with heels as well as converses for girls, and Diesels are perfect for almost any occasion that a guy would need jeans for. Sorry, I don't think Miss Sixty has started making men's jeans yet.

7.) *Others: Joe's, Rock and Republic, Express, Guess, Gap, American Eagle, Abercrombie and Fitch.*

Joe's jeans are clean-cut, Rock and Republics are like a blend of Diesels, Luckys, and Sevens. Express, Guess and Gap jeans are very stylish too. They can give you everything that the other brands give but without the name brand labels. This reduces the price tags.

Now AE'e and A&F's. Hey girls, high school is history. These jeans were great then, but it's time to grow up. They are not so flattering on a more mature female figure which is probably what's forming now. Plus, think about it. Tweens wear these brands now.

There are a plethora of other denim brands but ultimately, wearing a good brand does not guarantee that the pair looks good on you. However, there is a reason why some brands are more famous, so if you're not very denim-savvy you are safest betting on the bigger brands. Jeans are great for many things and have undoubtedly become an un-ignorable part of many cultures. They have a long history, starting with the invention of denim. A writer for American Fabrics magazine aptly declared in 1969 "denim is one of the world's oldest fabrics, yet it remains eternally young."

So, next time you're San Francisco, pay tribute to the Levi's flagship (as well as the Gap) and next time you find yourself in the south of France, pay homage to Nîmes, that sweet ancient town where it may have all started.

Lang Lang technically impressive, musically dull

CASEY HANDMER
Staff Writer

I recently had the pleasure of seeing the internationally renowned concert pianist Lang Lang give a recital in Los Angeles. Lang Lang has shot to fame since his 2001 Carnegie Hall debut, with reviews praising his showmanship and technical mastery of the keyboard. As his career progresses, it is interesting to see what and how he plays to live up to the hype and the expectations of his audience, many of whom are eager for a display of acrobatics. Lang Lang is certainly not the first virtuoso musician to be typecast in this way, and I was interested to see whether he might try to subtly subvert or lampoon his own unique style. Unfortunately, subtlety is not generally considered one of Lang Lang's selling points.

He served up a balanced program consisting of Bach Partita No. 1 in B-flat (BWV 825) followed by a late Schubert Sonata, also in B-flat (D 960). Both are pieces renowned more for musical than technical difficulty, and Lang Lang approached both according to his by now familiar formula of "no rubato left unplayed". While I'd be the last person to criticize a performer for reinterpreting older music with more modern innovations, Lang Lang did not express the polyphonic texture of the Bach particularly well, leaving us with a notationally accurate but sometimes bland and often confounding performance.

Indeed, were it not for the applause from the more alert ends of the auditorium, I would have had difficulty telling the end of the Bach from the beginning of the Schubert, despite the intervening centuries of musical development, thought, and stylistic difference between them.

Displaying a level of proficiency while performing music at a level he must have mastered nearly two decades ago, Lang Lang nevertheless delivered a piece whose cohesion, unity, and flow was broken by occasional but seemingly arbitrary pauses in tempo, intrusive fortissimo chords, or other "pops".

Thus far most of the audience, at least the section that was still awake, seemed confused. Where were the technical fireworks? This was, after all, the performer sometimes dubbed the "greatest living pianist" who could "play anything". Someone with his reputation could certainly afford to dish up some tasty and technically terrifying tidbit from the edges of his repertoire.

Thus far, with Bach and Schubert, we had traveled down the dead center of the road of western musical thought. When one sees a virtuoso perform there is an expectation that he will play easy stuff well, and that he will also select some repertoire they find challenging.

Georges Cziffra, a Hungarian pianist well-known in Europe in the 60s and 70s, was famed for driving audiences into a frenzy with edge-of-your-seat fear and excitement over his interpretations and arrangements of, in particular, Liszt.

A pianist must perform at least some music with which they physically and viscerally contend. Without the possibility of a spectacular meltdown there can be no suspense and no excitement, at least since Steinway worked out how to prevent pianos from exploding beneath the demands of the Romantic repertoire.

The second part of the recital promised the desired technical showmanship in the form of the Chopin Etudes Op. 25.

Billed as Chopin's "ultra-demanding pianistic studies", they were, at the time of their composition, possibly the fourth most challenging etudes in existence.

Again presenting a work that he must have mastered at half his present age, Lang Lang delivered solid performances of the 12 studies, though we got a few fistfulls of bonus notes in the seventh. Towards the end he anticipated premature applause and played one almost right after another, often ending with a flourish or musical joke obvious enough for most of the audience to get.

In between half a dozen curtain calls, he performed two encores: Liszt's Romanza and La Campanella.

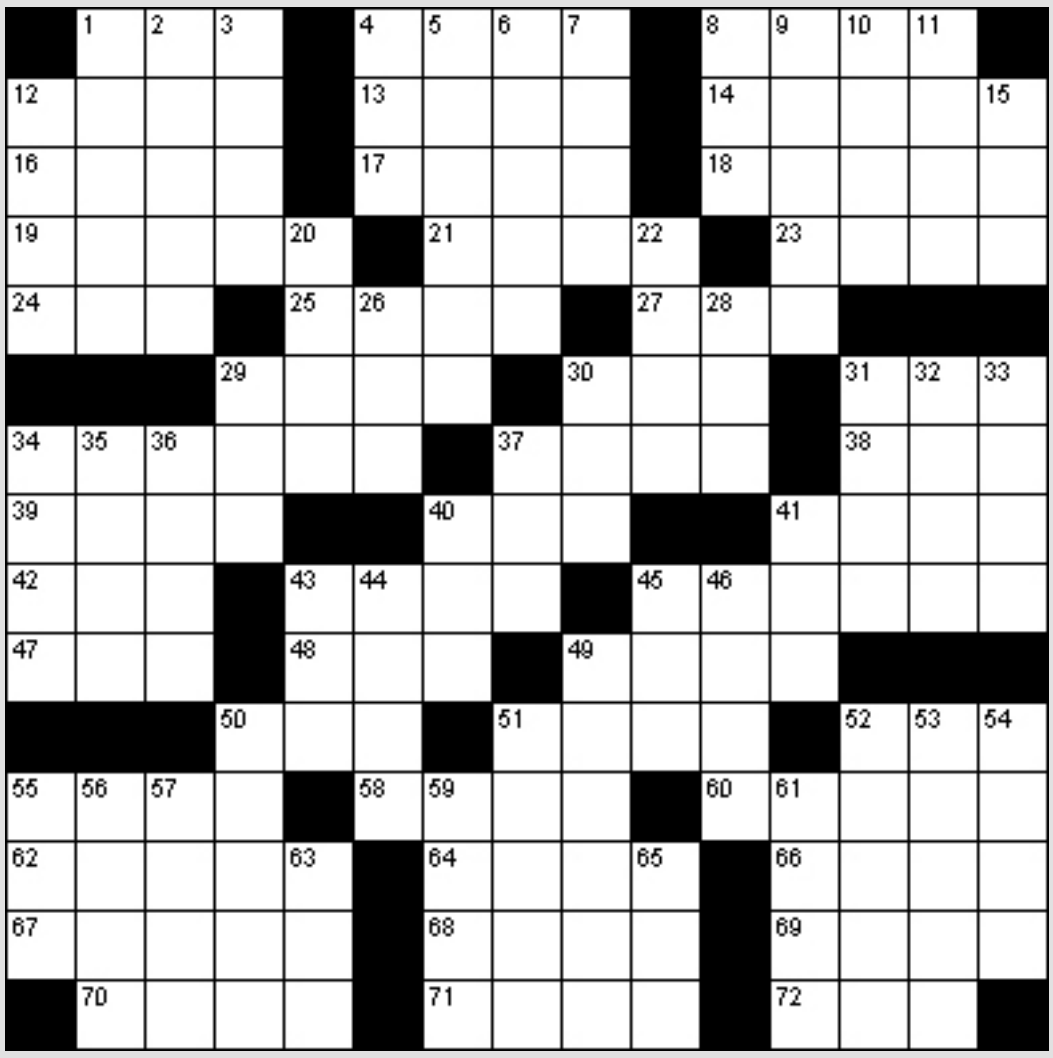
The former was most likely for the people sitting to the right of the podium who gained a strong appreciation for his legendary emotional state while playing, while the latter is an old encore favorite amongst pianists. La Campanella was originally written as a musical joke, but due to its technical difficulty is almost always played "with a straight face". Lang Lang took the opportunity to play his own cadenza drawn largely from other Liszt works (including an extended melodic inversion from Liszt's transcription of Danse Macabre), which garnered at least one laugh.

At last! Thus it seems that Lang Lang is very aware that certain repertoire and tricks sell tickets, records and sponsorship deals, and is, perhaps, musically trapped.

The question, then, is at what point will he decide he is rich enough, throw off the shackles of living up to his possibly undeserved reputation, and turn his unique style and voice to more unexpected repertoire? Perhaps he could emulate Stephen Hough, who occasionally sneaks Godowsky billed as Chopin upon an unsuspecting audience.

Who knows, perhaps one day he will bring a new audience to the most recent century of piano composition.

Today's Puzzle: Crossword



[http://www.puzzlechoice.com/]

Across

1. Spoil
4. Highly excited
8. Land measure
12. In this place
13. Starchy plant
14. Sedimentary rock
16. Exhort
17. Arab ruler
18. Heathen
19. Surly
21. Type of meat
23. Despatch
24. Optic
25. Object of worship
27. Prevarication
29. Iniquity
30. Long fish
31. Also
34. Intense dislike
37. Adverse criticism
38. Chafe
39. Finished
40. Seabird
41. Inventor of this pen
42. Trash can
43. Couple
45. Pass by, in time
47. Peculiar
48. Edge
49. Principal
50. Type of fish
51. Desperate
52. Appropriate
55. Celestial body
58. Level
60. Stately
62. Dart
64. Adjoin
66. Complain
67. Pretext
68. Replete
69. Redact
70. Facilitate
71. Woody plant
72. Mesh

Down

1. Festive
2. Debate
3. Coral ridge
4. Consumed
5. Frolic
6. Type of window
7. Bloodshed
8. Small snake
9. Pursue
10. Fury
11. Panache
12. Enormous
15. Conclusion
20. Basketball number
22. Insect
26. Carried out an action
28. Kind or sort
29. Stray
30. Moose
31. Journey
32. Belonging to us
33. Woodwind
34. Tramp
35. Eager
36. Keep watch
37. Animal coat
40. Target
41. Prohibition
43. In favor of
44. Assistant
45. Hearing device
46. Form of security
49. Unit of time
50. Traverse
51. Suspend
52. Dwelling
53. Twisted hair
54. Portable shelter
55. Droop
56. Genuine
57. Elaborate song
59. Immense
61. Portent
63. Small
65. Golf peg

Answers to last week's crossword from puzzlechoice.com

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

[http://www.puzzlechoice.com/]

Upcoming Events: The Caltech Y

November 22: Science Policy Lunch with Dr. Baltimore. Space is limited. RSVP required.

November 24: Dinner in the Park. Join a group of Caltech students at Central Park in Pasadena for Union Station's Dinner in the Park - Community Thanksgiving Meal.

November 30: Social Activism Speakers Series with Jeremy Scahill. Ramo Auditorium, 7:30-9:30 PM

Jeremy Scahill is one of the few US journalists who independently ventured into Afghanistan and was not embedded with US military forces or with the Afghanistan government. He returned from his trip with fascinating stories derived from first-hand observations, interviews, and videos about the real status of the war in Afghanistan.

Adam Khan takes a shot during a Caltech water polo game. Sunday marked the end of Khan and the other seniors' Caltech water polo careers.

- gocaltech.com

The men's and women's cross country teams completed their regular seasons on Saturday at the SCIAC Championships

- gocaltech.com

The soccer team completed their season on November 1 with a loss to SOKA. Pictured above is Kunmi Jeje thinking really hard about kicking the soccer ball while others look on in awe.

- gocaltech.com

The volleyball team also concluded its season on November 1 with a loss to Whittier.

- gocaltech.com

A chat with the Caltech water polo coach Joshua Moser

TED SINGER
Contributing Writer

Q. What Caltech teams are you most involved with?

A. I'm the head coach for the men and women's water polo teams

Q. How long have you been at Caltech?

A. This is my fourth year here.

Q. What did you do before coming to Caltech?

A. I was at Flintridge Preperatory School in La Cañada. I coached water polo and helped out with swimming.

Q. How do Caltech's facilities compare to other schools?

A. Our pool is too small. It's like playing soccer on an eighty yard field. It makes it impossible to practice for away games. We can't host conference games by rule.

The weight room is excellent, but the locker rooms leave much to be desired.

Q. I notice you are dressed formally. Is that standard, or only you?

A. It's just me. To me, it's no less of an important game than basketball. You don't see them in shorts and sandals. This is my job, this is my office. I take this very seriously. I don't mind making myself uncomfortable to show that I care. It's important that we do things the right way.

Q. How do Caltech athletes compare with other schools?

A. They are much more coachable and willing to learn. I guess it comes from teaching themselves how to learn all their lives. They match up well with other schools.

They work harder and they're smarter. That's really the crux of it. This was the number three team in division three, and our guys were even for most of the game.

Q. What do you do as coach? What does coaching entail?

A. The majority is recruiting. Sending emails to kids, keeping an eye out for kids. It's a lot of administrative stuff.

We spend a lot of time practicing, planning for games. It's a lot of preparation.

Q. Do most Caltech water polo players have experience?

A. No, not yet. We get a couple guys who come in with experience from high school, but out of our starting group, four of seven played in high school and three of them didn't.

I know all the students at Caltech are really intense academically, but there's a subset who want to push themselves athletically, too. I know because we have a bunch of guys who kill themselves trying to get better every day.

The big thing is to make sure we get a little better people each year and a little better each day. Eventually you get to a point where something special really starts to happen, and we're getting close to that tipping point.

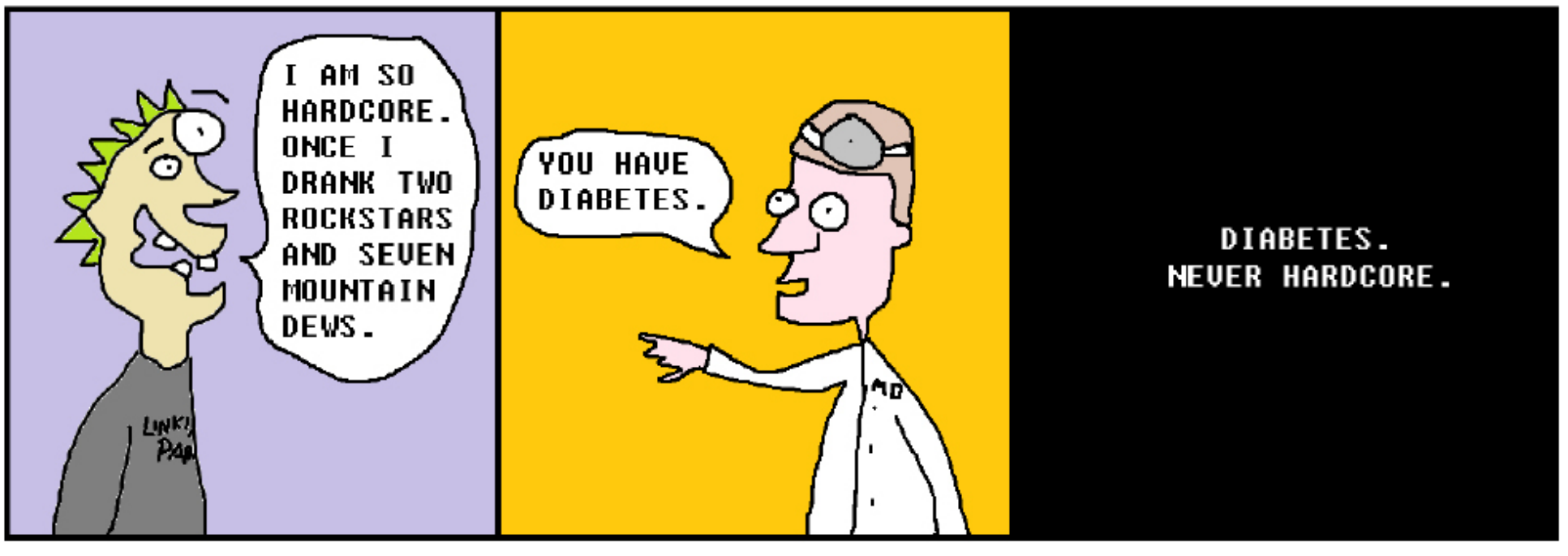
Bucky the Beaver says: "Don't do drugs! Be filler space like me!"

APPLES AND ORANGES

BY REBECCA LAWLER

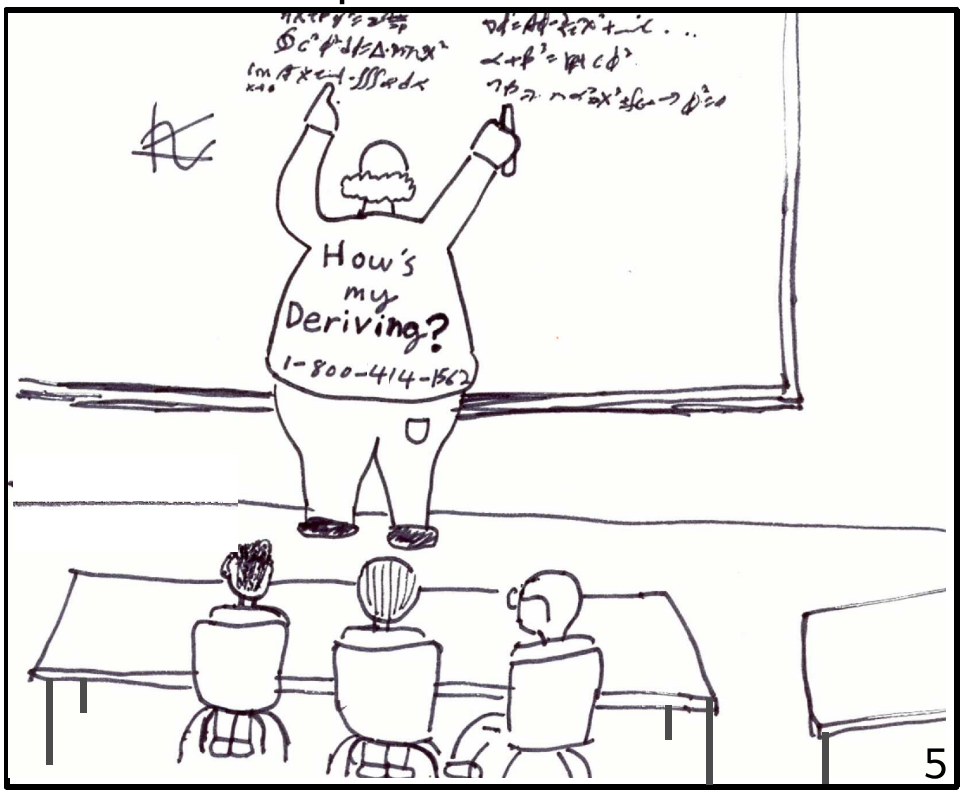
PUNK ROCK

BY ROBERT JIMMAS



Punctuated Equilibrium

Milo Lin



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