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TECH@CALTECH.EDU

NOVEMBER 13, 2017

# Back to the Nineties: Operation Southern Watch

TIMOTHY LIU  
Contributing Writer

A pair of American F-16 fighters soared high above the Iraqi Desert. Twenty minutes earlier, Iraqi aircraft had intruded south of the 32nd parallel, the boundary where Iraqi fixed-wing aircraft were barred by the United States from flying. Another pack of Soviet-built Iraqi jet fighters approached the American aircraft, ignoring warnings to turn around. After receiving permission from an Airborne Warning and Control System (AWACS) plane flying over Saudi Arabia, one of the American F-16's fired a half-million dollar radar-guided missile, destroying an Iraqi fighter jet. No parachute opened.

This shoot-down took place in December of 1992, between the end of the Persian Gulf War and the US-led invasion of Iraq in 2003. During this 12 year interwar period, the skies over Iraq were hardly quiet as US aircraft under Operation Southern Watch, and Iraqi air and missile forces duked it out in a simmering game of cat-and-mouse.

On August 2nd, 1990, Iraqi tanks rolled into Kuwait and ignited the Persian Gulf War. Saddam Hussein's army, then the fourth-largest in the world, quickly overran the country and within 48 hours Kuwaiti resistance had ceased. Over the next several months, the United States assembled a coalition to liberate Kuwait and drive out the Iraqis. On February 24th, 1991, American and coalition forces drove into Kuwait and parts of southern Iraq, and within 100 hours had liberated the country.

In the aftermath of the war, Iraqi civilians launched a largely uncoordinated rebellion against Hussein's rule, which was met by brutal repression. The UN Security Council passed Resolution 688 on April 5th, 1991, condemning the violence and demanding that humanitarian aid be allowed into Iraq. Without explicit UN permission, the United States—along with Britain, France, and Saudi Arabia—implemented a no-fly zone over southern Iraq. Iraqi aircraft were banned from flying south of the 32nd parallel, in an

effort to protect civilians on the ground. Planes that violated the order would be shot down.

Throughout the 1990's, American and coalition aircraft continued to fly patrols over southern Iraq as part of Southern Watch. Tensions continued to simmer, and Iraqi ground forces regularly shot at coalition planes. Occasionally, hostilities boiled over into broader airstrikes. In 1993, over 100 aircraft were sent to attack radar and surface-to-air missile sites in southern Iraq. In a controversial move, President Clinton ordered Operation Desert Fox, a series of air attacks designed to "degrade" Iraqi military capabilities. Operation Southern Watch formally ceased in 2003 when American and coalition forces invaded Iraq, overthrowing Saddam Hussein.

The present day conflict in Iraq is the latest continuation of a saga that stretches back more than a quarter-century. The current challenges facing Iraq have their roots in the overthrow of Hussein's regime and the chaos that followed. Similarly, the Persian Gulf War in

1991 and the American invasion of Iraq in 2003 are not two separate stories, but rather two acts of the same play. The 12 year long intermission was filled by Operation Southern Watch and a slew of actions, reactions, and bouts of inaction. The story of Iraq will continue to play out—not as a new story but as the next chapter in a winding history.

*"Back to the Nineties"* is a semi-regular column about historical events. Pieces will focus on events from the 1990s and the turn of the millennia and how they relate to the present day. If you have feedback or ideas please follow the link here [goo.gl/zee2Ez](http://goo.gl/zee2Ez) or email me at [tsliu@caltech.edu](mailto:tsliu@caltech.edu).



US Air Force planes flying over burning Kuwaiti oil wells in 1991. The wells were set ablaze by retreating Iraqi forces. The last wells were extinguished nine months after the end of the Persian Gulf War.

Photo Courtesy of US Air Force

# Committee on Undergraduate Caltech Housing Focus Group Findings

COUCH COMMITTEE  
Contributing Writers

## Introduction By Rachael Morton

For those who don't know, Bechtel residence is scheduled to be opened in fall of 2018. This undergraduate residence will have 212 student beds, organized into 4, 6, 8, and 12 bedroom suites along with several singles. This building has 7 apartments for resident associates (RA) and 2 faculty in residence (FIR) apartments. Bechtel also has 3 kitchens and one dining hall (all student residents will be on a Caltech-affiliated board plan), 3 laundry rooms, and 9 common lounges/study rooms. However, the question of who will reside in Bechtel is still left to be decided, and we're grateful that we, as students, are getting a voice in this discussion.

The Committee on Undergraduate Caltech Housing (COUCH) was formed to thoroughly examine different potential residential models for Bechtel with the goal of offering a recommendation from the student perspective. The committee is comprised of six undergraduates, each leading a different focus group to study the proposed

concepts: all-freshman housing, new house/houses, sophomore priority housing, unaffiliated housing, house "colonies" (similar to the existing "off-campus alleys"), and themed housing.

Over the past few months, they've been conducting interviews with staff and administration at Caltech, collecting survey data, visiting other schools, and amassing a wealth of information about residential life.

We want to begin opening the findings, and discussion, to our undergraduate community at large. The following articles have each been written by one of the 6 focus group leaders, and they delve into some of the work the focus groups have done. We will also have a Town Hall on the evening of November 15th in Baxter Lecture hall, which all undergraduates are encouraged to attend.

These articles are shorter summaries of the work that will be available in the final compiled report (to be published in the coming weeks). Additionally, survey data referenced in these articles will be available to view on the ihc website ([ihc.caltech.edu](http://ihc.caltech.edu)).

Please reach out to [couch2017@googlegroups.com](mailto:couch2017@googlegroups.com) if you have any questions or feedback.

## Answering Your Questions about Themed Housing By Sarah Crucilla

### What is themed housing?

Traditionally, themed housing is a type of living-learning community where students are given the opportunity to pursue interests in their residential life, such as art, music, and language. We have expanded this definition, however, to include an additional prong: needs-based housing, such as quiet housing and substance-free housing. While the current houses have unique personalities, our version of themed housing looks to explore topics and needs not always met in the current system.

### What are "make-your-own-theme" housing and "needs-based" housing?

Make your own themed housing is non-needs based, student-proposed themed housing. Needs-based housing are themes pre-selected to meet needs not currently fulfilled in our housing model. Some of the more commonly requested needs that students have

are to live in quiet or substance-free housing. This was included with the intention of bringing students together who have similar living requirements from across houses.

Another housing theme could be a food co-op. In this option, students would still be on board, but they would use their board funds to purchase fresh ingredients to cook their own meals. This theme is a common option at many universities.

### How is "make-your-own-theme" housing different than just living in a suite with friends?

Through this branch, a group of students can create a theme they would like to live in, explain how they would use it to give back to the community, and then list a faculty mentor to help supervise their work. Though they would potentially be able to access some funding from the school to complete projects they would be interested in, they do have to demonstrate that they are sticking to their theme. Needs-based themed housing will not have these requirements.

### How does themed housing fit into the current housing system?

Since Off Campus Alleys (OCAs) will no longer exist, themed housing is intended to provide housing options that are separate from the undergraduate houses but not limited to house-affiliated groups. Themed housing will allow students to live where they can further explore their interests and hobbies in a positive, enthusiastic environment.

### What is our proposed implementation of themed housing in Bechtel?

A possible implementation would be to fill a certain portion of Bechtel with themed housing based on demand before the general campus lottery. We will discuss further details of this plan at the Town Hall.

### Where's the evidence?

In order to make our assessments, we used data from two surveys sent out to the student body, a tour of Occidental themed housing (which is a successful, similar program at a school with a similar size to Caltech), and many meetings with Caltech staff.

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# ANNOUNCEMENTS

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NOVEMBER 13, 2017

THE CALIFORNIA TECH

## Caltech Y Column

### CALTECH Y

The Caltech Y Column serves to inform students of upcoming events and volunteer opportunities. The list is compiled by Katherine Guo 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.

### Upcoming Events

OASIS and Caltech Y presents  
**The ITT Gandhinagar Story: Opportunities and Challenges in Building a World Class Institution, a conversation with Sudhir Jain**

Tuesday | November 14th | Morgan Library, Kerckhoff Lab (2nd floor) | 4:00 PM

RSVP: [https://www.facebook.com/events/152950895451014/?active\\_tab=discussion](https://www.facebook.com/events/152950895451014/?active_tab=discussion)

This talk will contextualize several new and exciting initiatives currently being implemented in Indian higher education. It will focus specifically on developments at ITT Gandhinagar, one of India's newest and fastest growing institutes of higher education. Started less than a decade ago, ITT Gandhinagar has sought to establish itself as a centre of excellence in research, teaching, and community engagement. The talk will highlight some of the novel initiatives taken by the institute in its journey to revitalize and reimagine the scope and context of a modern engineering education.

The Talk will also provide a good opportunity for those interested in a teaching and research career in India to gain a first hand perspective on new opportunities and possibilities for professional growth. As a quickly growing institute, ITT Gandhinagar is actively looking for outstanding and enthusiastic young faculty members not just in Engineering, but also in the Sciences and the Liberal Arts. ITT Gandhinagar also welcomes academics and industry veterans for shorter durations through its vibrant Visiting Faculty Program. The talk will provide a window into various such opportunities, and the following discussion session will serve as a platform to discover ways to get engaged with the institute and contribute to its bold vision.

#### About the Speaker:

Sudhir K. Jain received his Bachelor of Engineering from University of Roorkee in 1979, Master of Science from Caltech in 1980, and Doctor of Philosophy, also from Caltech, in 1983. He joined the Civil Engineering faculty at ITT Kanpur

in 1984 and in June 2009 moved to ITT Gandhinagar as its first Director. At ITTK, Professor Jain served in a number of administrative capacities including Head, Civil Engineering (2001-2003) and Dean, Resource Planning and Generation (2005-2008). He also set up the National Information Centre of Earthquake Engineering (NICEE) at ITTK and developed the National Programme on Earthquake Engineering Education (NPSEE), supported by the Government of India. He was elected a Fellow of the Indian national Academy of Engineering in 2003 and currently serves as president of the International Association for Earthquake Engineering.

#### Double Your Caltech Y Donation with United Way

Until November 17th

Any contribution made through the United Way campaign by all Caltech employees will be matched by the Institute from October 13 to November 17, 2017! If you are a Caltech faculty or staff member and would like to make gifts to the Caltech Y, we strongly encourage you to make your donation through the United Way campaign.

Pledge online by going to <https://access.caltech.edu/> and click on "United Way".

We encourage you to give through United Way. You can make a huge difference in the services the Caltech Y is able to provide to Caltech and the surrounding community!

#### Day Hike: Malibu Creek State Park

Saturday | November 18th | 8:00 AM to Late Afternoon | Bring your own lunch

Come join the Caltech Y-Outdoors on a day hike in Malibu Creek State Park in the Santa Monica Mountains. You will explore stream-side oak woodland, chaparral ecology, and the site of the filming of MASH! We will be leaving campus at 8 am on Saturday November 18 and returning mid to late afternoon. Bring your own lunch and plenty of water!

#### Costa Rica Alternative Spring Break Trip

Saturday, March 17th through Sunday, March 25th (9 days) | Cost: \$950

Applications Due: by Noon on November, 22nd

The Caltech Y is excited to seek applicants for our 2017 Alternative Spring Break trip to Costa Rica. Join other Caltech students for a conservation focused spring break trip this year. On the Costa Rica trip we will be working with a host organization OSA Conservation [www.osaconservation.org](http://www.osaconservation.org) – which is dedicated to protecting the globally significant biodiversity of Costa Rica's Osa Peninsula. Don't miss out on this fantastic opportunity to explore another part of our planet and make a tangible difference in the world.

Trips fees include transportation, lodging, and most food. The Costa Rica Alternative Spring Break trip is

## Caltechlive!

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NOVEMBER 18, 2017 • 4 PM

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### The Astronomer's Dream



Discussion Leader: **Anna Ho**  
Caltech Astronomy  
Graduate Student

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What would 17th Century astronomer Johannes Kepler have seen if he had today's advanced technology? *The Astronomer's Dream* is a journey through a computer graphic visualization of space, based on data obtained by NASA satellites.

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For more info and to RSVP email Elisabeth at [egallmei@caltech.edu](mailto:egallmei@caltech.edu). Eligible for Federal Work Study.

#### Mentors for L.I.F.E

Volunteer times: 2:45 - 5:00 PM at various locations in Pasadena

Stressed out by school? Step outside the Caltech bubble and mentor tweens who've yet to even consider college. Things you could do: Build a baking soda and vinegar volcano, read a book aloud, play sports or board games, teach the alphabet of another language, do a craft. Having a mentor makes an at-risk student 55% more likely to attend college, 78% more likely to volunteer regularly, and 130% more likely to hold a leadership position. Interested? If you have 180 seconds, you can watch this video and be inspired. If you have an hour a week, you can mentor someone and be their inspiration. If you feel unqualified, don't worry. Ultimately, mentoring is about being a consistent, dependable friend—not a surrogate parent or psychiatrist. To get started, contact [noelle@caltech.edu](mailto:noelle@caltech.edu).

#### Pasadena LEARNS

Every Friday | 3:00 - 5:00 PM | Pasadena

Come volunteer at Washington Middle and Elementary STEAM 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 [azhai@caltech.edu](mailto:azhai@caltech.edu). Eligible for Federal Work Study.

#### Hathaway Sycamores

Every Monday | 5:45 - 8:00 PM | 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 40 minutes of travel time and 1.5 hours of tutoring. Transportation is included.

## Bechtel Focus Group Findings, continued

**Continued from page 1**

### Unaffiliated Housing By Janice Jeon

Bechtel as a continuation of the Caltech off-campus system, independent of House affiliation, offers flexibility for students to develop unique social environments. Students may not feel satisfied with the House system and find that living with a smaller group of friends in Bechtel suits their social needs better. Those who would like a place where they can separate themselves and focus on studies can also pick into individual rooms in suites.

Once Chester and Del Mar are no longer available, there will be only Marks/Braun as an option available for students who wish to live outside of the House, whether they desire detachment from the Houses, a quieter living space, more independence, etc. Rather than creating another Marks-Braun type environment in Bechtel, i.e. little interaction among residents, we can style Bechtel differently to promote new connections and communities.

Furthermore, there are students who wish to live on campus, but need to move off because there is not enough space in the Houses. With the addition of Bechtel, more students will be able to live on campus. Additionally, Bechtel is physically closer than Chester and Del Mar, which can help create a whole campus community that is less fragmented.

For students to flourish academically and emotionally, they need to feel like they belong. For some students, this sense of belonging will emerge once they have greater control over their living environment. Students can have more options living in Bechtel under an unaffiliated housing model.

### House-Affiliated "Colonies" By Umesh Padia

A House-Affiliated "Colonies" system would allow each house to select and fill suites similar to how houses are assigned OCAs (Off-campus alleys) in the current system. Last year, a total of 71 students lived in these house-affiliated OCAs, and a further 66 students lived in the Chesters and Del Mar. In the fall of 2018, these residences will be unavailable to undergraduate students. An equivalent number of suites could be assigned to House-affiliated colonies, the rest being available to unaffiliated students. Since the assignment of the suites can be handled similarly to how OCAs are handled currently, minimal change to the process is required.

For many, House affiliation is a strong component of identity: it represents common interests, hobbies, and long-lasting friendships. Bechtel colonies allow for students to closely maintain house affiliations and remain

motivated to be a part of the Caltech community for all four years. From survey data, a plurality of off-campus students list that they are living off-campus primarily because there are not enough rooms in their affiliated House. This percentage is larger with sophomore off-campus students because, due to seniority in some house's room picks processes, sophomores are twice as likely to live off campus than either the juniors or the seniors.

Bechtel colonies are in a unique position to address insularity that may exist between houses, while maintaining house identity. Suites could be assigned to houses strategically to increase exposure to those from other houses. Since several members of several houses will be occupying the same physical space, and eating together the same dining hall, there is more opportunity for students to organically build friendships with students from different Houses.

### New Undergraduate Houses By Anne Dorsey

The creation of a new undergraduate house or houses in Bechtel has been looked at by some as a convenient solution, offering little change to the status quo. But this lack of flexibility is what ultimately prevents the new Houses plan from being a viable option for the Bechtel Residence.

Bechtel, at 212 beds, is roughly the size of Fleming, Blacker, and Ricketts combined. It is considerably larger than the existing undergraduate houses. Keeping that in mind, we began investigating the possibility of dividing Bechtel into several smaller houses.

The creation of new houses comes with several logistical considerations: How will the building be divided into houses? How will these houses share kitchens, lounges, and other common spaces? What would the safety net look like? We have drafted eight different suggested layout plans for one, two, three, or four houses, which are elaborated on in the New Houses report. It was difficult, if not impossible, to create a "perfect" layout plan that gave each house a suitable number of nearby kitchens, lounges, and RA apartments. Essentially, it is counterproductive to create multiple houses in Bechtel because it was designed as a single residence; regardless of how you disperse the houses, there will always be some issue with RA coverage, common areas, or houses that are awkwardly out of proportion with each other or the existing houses.

Currently, none of the houses share courtyards, kitchens, lounges, or other common areas. It is unclear what the implications on stewardship and community preferences for cleanliness, organization, and noise level would

be with multiple houses sharing a single space. In addition, building a community in Bechtel would be difficult - unlike Avery, which was created from an established group of undergraduates already living in the space, these new houses' communities and cultures would need to be built from scratch.

The creation of a new house or houses in Bechtel creates a pressing problem: if Bechtel is used for more houses, Caltech's undergraduate housing options will be reduced to the House System or Marks/Braun, leaving very few spots for students who wish to have a residential experience other than the House System. This plan would essentially corner students into living in the Houses throughout their upperclassman years if they wish to live in Caltech-owned housing.

In the end, the prospect of creating new houses in Bechtel raises more concerns than it addresses.

### All-Freshman Housing By Tim Liu

All-freshman housing has certain attractive features, but it is also the riskiest and most difficult proposal to implement. There are only 212 beds in Bechtel, and currently no plans to shrink class size. The freshmen in Bechtel/Avery will also live with some peer advocates, health advocates, and possibly other upperclassmen in some undefined role. The excess freshman will most likely be placed in the west side of Avery, creating an awkward split.

The advantage of all-freshman housing is that it directly tackles some of the House System's challenges. Freshmen will have a stronger class identity and no longer be split into smaller sub-communities within weeks of arriving at Caltech. Having students rotate later in the year after they've matured may also allow them to make a more educated decision. Finally, having freshmen living in one place makes it easier for the counseling center and other groups to implement programming and support freshmen. Institutions with successful all-freshman housing have a comprehensive freshman experience, sometimes tied to classes, seminars, and speaker series.

Freshmen will almost certainly be closer with fewer students outside their year in an all-freshman house. Upperclassmen will not completely disappear from freshman's lives, but the mentorship and support that they provide will be severely curtailed. Institutions with successful all-freshman housing have intricate and well-designed programs for supporting freshmen. None of these programs currently exist at Caltech, and depending on non-extant programs is a risky

gambit. Additionally, if Bechtel is an all-freshman house, then non-House options for upperclassmen will be severely diminished. Upperclassmen are generally less interested in living in houses than freshmen and sophomores, making the paucity of choices for upperclassmen sub-optimal.

### Sophomore Priority Housing: "It doesn't do any good, and probably would make campus lame."

By Tom Gorordo

The option of implementing a sophomore prioritization scheme in Bechtel would provide a guarantee that displaced sophomores would be able to take up residence in Bechtel and/or would guarantee better lottery numbers for sophomores picking into Bechtel.

Initially, this seems enticing, since sophomores make up a disproportionately large fraction of the current Off-Campus population (~44% of the total according to Housing data).

In addition, ~40-50% of Off-Campus sophomores did not receive high enough picks in their internal House picks procedures to get spots in their house (according to the Bechtel Occupancy survey). Providing guarantees to such a large population seems as if it would help mitigate the disproportionality in some way, to reduce the "sadsomore" problem.

However, Bechtel consists of 212 beds, and the total number of beds being removed in the transition from the current off-campus system is around 140 beds, meaning that Bechtel has room for around 70 additional students on top of the current off-campus population. So, a prioritization scheme which guarantees sophomores a place in Bechtel would be ineffectual, since



*Totem* Caltech's Literary and Visual Art Magazine

## HAIKU AND PHOTO CONTEST

DEADLINE: JANUARY 5 • 11PM

This is a pair challenge! We'll still consider submissions from individuals, but we highly encourage you to find a friend to submit a haiku and photo together. Photos must be taken during the period between contest announcement and deadline.

Prizes: \$25 Amazon gift card per person for the winning haiku + photo submission.

Send submissions to [totem@caltech.edu](mailto:totem@caltech.edu). For more info about Totem, please visit our FB page or [totem.caltech.edu](http://totem.caltech.edu).



## Procrastination workshop

A 1-hour workshop offered 2 times this term:

**Friday, October 13th, 4:00 - 5:00**

**Friday, November 3rd, 4:00 - 5:00**

**326 Sherman Fairchild Library**

- Learn tools for coping with procrastination and work avoidance.
- Learn practical, behavioral strategies for responding differently to old habits.
- Respond differently to unhelpful thoughts like "I can just get up early and do this tomorrow."
- Optional text-based reminder system to keep the lessons fresh in the week after the workshop is over!

**More information:** [counseling.caltech.edu](http://counseling.caltech.edu)

## EMOTIONAL INTELLIGENCE TOOLKIT

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Get better at knowing what you're feeling, and see how your thoughts and feelings affect each other. **October 9th and 16th**

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Learn how to be more flexible in the way you see the world! **October 23rd and 30th**

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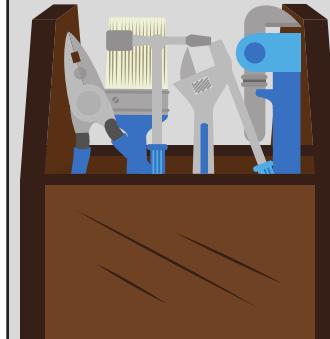
Learn how to hang in there with difficult situations and emotions without having to avoid them. **November 6th and 13th**

**Just show up!**

**Mondays 4:00 - 5:00**

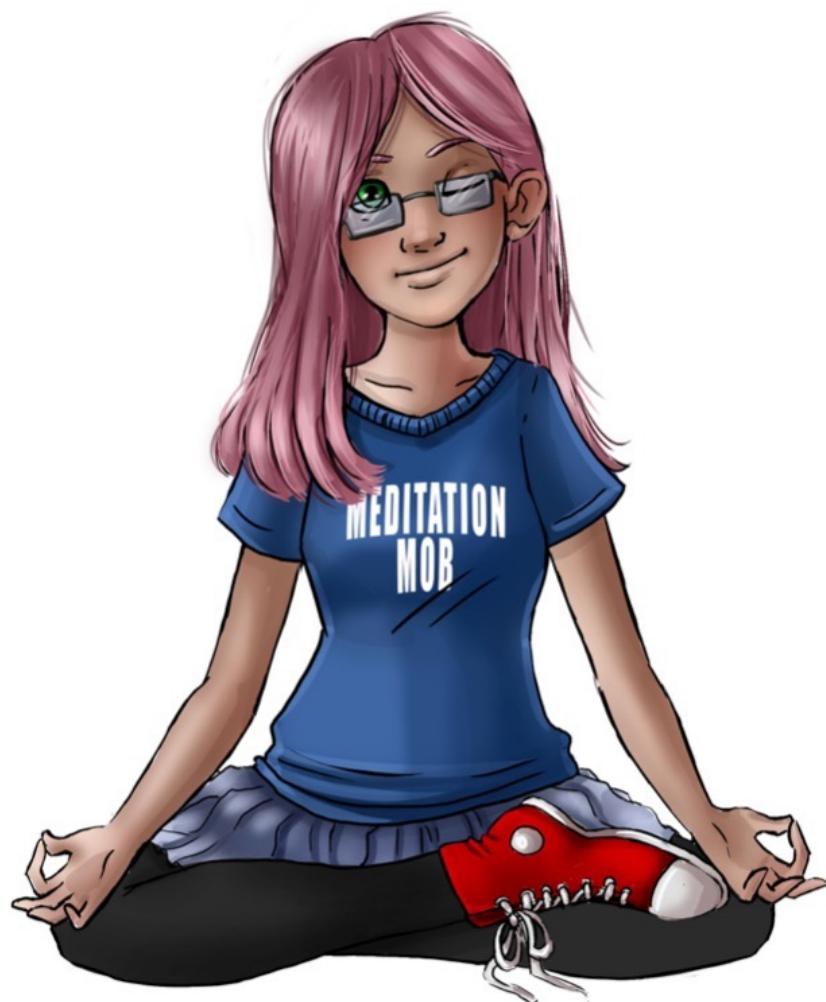
**326 Sherman Fairchild Library**

[counseling.caltech.edu](http://counseling.caltech.edu)



## Join the Meditation Mob!

**Tuesdays, 12:00 - 12:50**



Want to learn more about mindfulness meditation? It's a great way to improve your attention and to become more grounded in the present moment.

There's no religious component. We use secular, evidence-based meditation techniques.

We meet in the study room on the **9th floor of Millikan Library**. All students are welcome, from total beginners to experienced meditators.

Mailing list and MP3 archive:  
[counseling.caltech.edu/students/meditation](http://counseling.caltech.edu/students/meditation)

## Cross Country Sets Historic Bests at NCAA Regionals

GOCALTECH.COM

Actual Sports Content Editor

CLAREMONT, Calif. (Nov. 11, 2017)

— The Caltech men's and women's cross country teams ran to two of the program's best team scores ever at the NCAA West Regional Championships at Pomona-Pitzer Colleges on Saturday.

The day consisted of a little bit of everything, both individually and as a group and featured multiple time improvements as the cross country team capped off a year in which they took a massive step forward as a whole. The men's team rounded out the top 10 and had its best team finish since 1997 when the SCIAC only featured eight teams. The women's team took 14th place, an improvement on the prior year when they finished 15th in a 19-team field which held the prior distinction of the women's best regional finish ever. Moreover, sophomore Simon Ricci (Roseville, Calif. / Oakmont) finished 30th in the men's race and came just seconds away from setting a new Regionals personal best (26:30.20). Freshman Claire Hu (Redmond, Wash. / Redmond), meanwhile came in as the fifth-fastest freshman in the field, finishing 32nd. Both runners earned all-region distinction for finishing in the Top-35.

R e s u l t s  
M e n

Ricci's performance helped buoy the Beavers into the Top-10 as sophomore Tanner Moore (Roseville, Calif. / Oakmont), the team's consistent second runner this season, came seven spots away from an all-region distinction himself by placing 42nd (26:53.30). Junior Rohan Choudhury (Cupertino, Calif. / Monta Vista) recovered

from an illness he sustained prior to the SCIAC Championships to return to third place on the team by running a 27:32.8. Freshman Spencer Morgenfeld (Palo Alto, Calif. / Palo Alto) improved on his personal best by five seconds (27:36.9) and was trailed by fellow freshman Matthew Earney (San

in a really memorable performance. It was inspiring watching them compete with a new level of focus and intensity. They represented Caltech well."

The men's team finished fifth among eight participating SCIAC teams and defeated



*I'm always impressed by the ability of XC runners to keep running, despite looking like they're in an immense amount of pain.*

-gocaltech.com

Diego, Calif. / Del Norte) by less than four seconds to give Caltech five runners in the top-70. Sophomore David Fager (Miami, Fla. / Belen Jesuit Prep), meanwhile continued his ascension up the team ladder with a 28:25.9 and sophomore Tommy Alford (Dublin, Ohio / Dublin Coffman) rounded out the Beavers' top-seven by clocking in at 28:58.6.

"We felt like we had been consistent in races all year but that there was another level we were capable of reaching," Head Coach Ben Raphelson said. "They turned

three intraconference teams at regionals for the first time ever to put an exclamation point on a pivotal season for the program.

W o m e n

The Beavers met many preseason goals on the women's side with Saturday's results but have been overcome with illness that has affected the team up and down the lineup since SCIAC Multi-Duals.

"We knew we had some adversity to overcome due to illness," Raphelson said. "Several people stepped up with their best runs of the season to secure a very solid team finish."

SCIAC Newcomer of the Year Hu led the Beavers with another strong showing to cap off a consistent string of high-level championship performances. The freshman finished in 23:05.6, though only five seconds separated Hu and the five next finishers. The women's team also saw sophomore Jena Srikanth (Fresno, Calif. / Clovis North) step up and into the team's second running spot with a 24:35.2. Freshman Krystal Brodsky (Redmond, Wash. / Redmond) finished third on the Beavers with a 24:55.3 on the women's 6K course, a new personal best. Going with the theme of personal bests, junior Melissa Gutierrez (Pico Rivera, Calif. / El Rancho) also set a new best for herself this season by running a 25:31.5. Sophomore Skye Reese (Concord, N.H. / Concord) finished just two seconds off Gutierrez's time to take 101st and freshman Molly Croteau (Redmond, Wash. / Redmond) finished just two spots behind Reese (25:37.1). Freshman Sirisha Gudavalli (Boulder, Colo. / Fairview) rounded out Caltech's top seven (26:17.1).

"There was a lot of selfless racing that speaks volumes to the character of the women on the team," Raphelson said. "It's hard enough to race at a high level even when you're feeling great. It takes another level of courage to race hard when things haven't been going well. Melissa had been battling injuries for the past few weeks but came through with her best race of the year. Molly and Sirisha were both under the weather. All of them gave what they had to help the team."

## Rookie Sun Sets Pair of Records in Debut

GOCALTECH.COM

Actual Sports Content Editor



*If one of the swimmers was 7'6", would they have to use a different pool?*

-gocaltech.com

PASADENA, Calif. (Nov. 11, 2017) — Rookie Jessica Sun (York, Pa. / Red Lion Area Sr.) broke a pair of records in her collegiate debut as the Caltech women's swim & dive team opened the 2017-18 season against the University of Redlands on Saturday.

Sun got started immediately as part of the meet-opening 200 Medley Relay team alongside sophomore Angelina Pan (Toronto, Canada / Havergal Coll.) and juniors Brittany Percin (Lake Tahoe, Calif. / Stanford Online) and Gemma Takahashi

(San Jose, Calif. / Leland). The quartet posted a 1:56.21 to beat out last year's record-setting squad by more than a second. Sun then claimed her second record in the 100 Breast and later notched the third-fastest 200 IM time in program history.

Percin and Takahashi, who hold 11 program records combined, also enjoyed a solid opener. Takahashi won the 100 Back and finished runner-up in the 100 Fly by just .43 to Percin, who posted a personal-best 1:00.49. Freshmen Krystin Brown (Lake Forest, Calif. / Trabuco Hills) and Mackenzie Wooten (Las Vegas, Nev. / NW Career & Tech) impressed on the boards in their first career meet, placing second and third on both the 1-meter and 3-meter before the 400 Free Relay team of Pan, Percin, Sun and Takahashi capped the meet with a thrilling runner-up finish by less than half a second that still netted them the program's second-fastest time in history.

Head Coach Paul Hughes and the Beavers head to the University of La Verne for their second meet of the season and final of the Fall term on Saturday, Nov. 18.

# ANNOUNCEMENTS

THE CALIFORNIA TECH

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

Here's your chance to nominate your favorite professor for the 2017-18 Richard P. Feynman Prize for Excellence in Teaching!

You have from now until December 15, 2017 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 emailed to [kkerbs@caltech.edu](mailto:kkerbs@caltech.edu) or 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 December 15, 2017.

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](mailto:kkerbs@caltech.edu)) in the Provost's Office.

## VICE PROVOST OFFICE HOURS

VICE PROVOST, CHIEF DIVERSITY OFFICER, AND PROFESSOR OF ENGLISH CINDY WEINSTEIN HOLDS REGULAR OFFICE HOURS AS AN OPPORTUNITY FOR UNDERGRADUATE STUDENTS, GRADUATE STUDENTS, AND POSTDOCS TO MEET FOR DISCUSSIONS PERTAINING TO THE COUNCIL ON UNDERGRADUATE EDUCATION; CALTECH ACCREDITATION; THE STAFF AND FACULTY CONSULTATION CENTER; STUDENT-FACULTY PROGRAMS; THE CENTER FOR TEACHING, LEARNING AND OUTREACH; THE CALTECH DIVERSITY CENTER; AND THE CALTECH LIBRARIES.

THERE ARE FOUR 15-MINUTE APPOINTMENTS AVAILABLE PER OFFICE HOUR. SIGN UP IN THE OFFICE OF THE VICE PROVOST, PARSONS-GATES ROOM 104, EXT. 6339 OR BY SENDING AN EMAIL TO [DLEWIS@CALTECH.EDU](mailto:DLEWIS@CALTECH.EDU). WE LOOK FORWARD TO HEARING FROM YOU!

## STUDENT OFFICE HOURS FOR FALL TERM 2017:

11/16/17 THURSDAY 11:00 A.M.-12:00 P.M.

11/21/17 TUESDAY 10:00-11:00 A.M.

11/27/17 MONDAY 10:00-11:00 A.M.

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# CROSSWORD

## ASCIT Minutes

Meetings are every week in SAC 13

### ASCIT Board of Directors Meeting

Minutes for November 10, 2017. Taken by Dana He.

**Officers Present:** Sakthi Vetrivel, Kavya Sreedhar, Sarah Crucilla, Alice Zhai, Dana He

**Guests:** Chris Dosen

**Call to Order:** 10:08 am

### President's Report (Sakthi):

- Yearbooks are out. Make sure house presidents know to distribute them.
- Club funding decisions came out. Let us know if you have any complaints or suggestions for improvement. Sarah will send out email regarding funding details.
- Midnight Donuts Thursday night.

### Officer's Reports:

#### V.P. of Academic Affairs (Kavya):

- Dean's meeting to improve advising. Trying to figure out the role of an advisor. Considering having separate course and personal advisors.
- Faculty board meeting. Discussed incentivizing ideas from Rachael's survey to use technology to solve a problem at Caltech.
- ARC software seminar next Thursday for Git.
- Two student faculty lunches on November 27<sup>th</sup> and 28<sup>th</sup>.
- Drop day and registration next Thursday.
- Ad hoc committee in the works to discuss curriculum changes.
- ARC minutes are in the Tech now.

#### V.P. of Non-Academic Affairs (Rachael):

- Not in attendance.

#### Director of Operations (Sara):

- Sent out club funding decisions. Changed funding decision for Caltech Pre-Med club.

#### Treasurer (Sarah):

- Has gone through all refunds from last week. Almost all done, will be completely done in the next couple weeks.
- Would like to suggest two amendments to budget protocol: Would like to combine yearbook and ASCIT dues because there is no one in charge of the yearbook money and yearbook spends more than they receive from dues. Would also like to raise ASCIT dues by a small amount to help cover yearbook deficit.
- Yearbook needs Adobe Creative Cloud, which costs \$100/month. Unsure if they can get access to yearbook bank account so ASCIT may need to cover it.

#### Social Director (Alice):

- Movie night was last Friday. Turnout was about 325, which was higher than expected.
- Meeting with administration next Tuesday to determine future interhouse dates.
- Marsh Fund meeting next week to see if we can get funding for amusement park event.
- Looking into ASCIT formal venues.
- Let Alice know if you have an event that you would like publicized on the Donut event calendar.

#### Secretary (Dana):

- Sign-up sheet for MHF Committee alternate is posted under the RF arches.

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.

Meeting Adjourned: 9:45 am

### ARC Minutes 11.05.2017

Present: Kavya Sreedhar, Vaishnavi Shrivastava, Shreya Ramachandran, Alejandro Lopez, Adrian Huang, Maggie Anderson, Amrita Rhoads, Erika Salzman, Michael Yao, Ryan Han, Timothy Liu, Camilla Ora

Guests: Matthew Zeitlin, Jay Palekar

Minutes submitted by: Vaishnavi Shrivastava

#### 1. Programming

- Student Faculty Lunches (SFLs): two SFLs on Monday and Tuesday of week 10.
- Software Seminars: 2 hr workshop on Git the week of 11/13 or the week after.
- Course Capture: have cameras, but lots of paperwork, so starting next term.
- ARC Bi-weekly Tips: send tips about academic resources to students like Degree Audit - could be through email or The Tech.
- Peer Advising: hosted in houses by house reps within next 2 weeks.

#### 2. Projects

- TQFR Improvement: revision of student guide to filling out TQFRs.
- Follow-Up from Student Faculty Conference: ARC recommended forming an ad-hoc committee to look at core and pseudo-core.

#### 3. Miscellaneous

- ARC Retreat: will be from 11/17 to 11/19.
- Council of Undergraduate Education (CUE) student reps met with Cindy Weinstein and Dean Gilmartin.

The ARC website at [arc.caltech.edu](http://arc.caltech.edu) has more information about what the ARC does if you are interested. We meet every Sunday at 11am in SAC13 and our meetings are open to everyone! If you have any questions, please feel free to email [ksreedha@caltech.edu](mailto:ksreedha@caltech.edu).

# Crossword

### Across

- Drilled
- Grade
- Memorization by repetition
- Speak up
- Having a strong healthy body
- Peak
- Balm
- Preconception
- Bill of fare
- Slumbers
- Stupefy
- Moscow landmark,

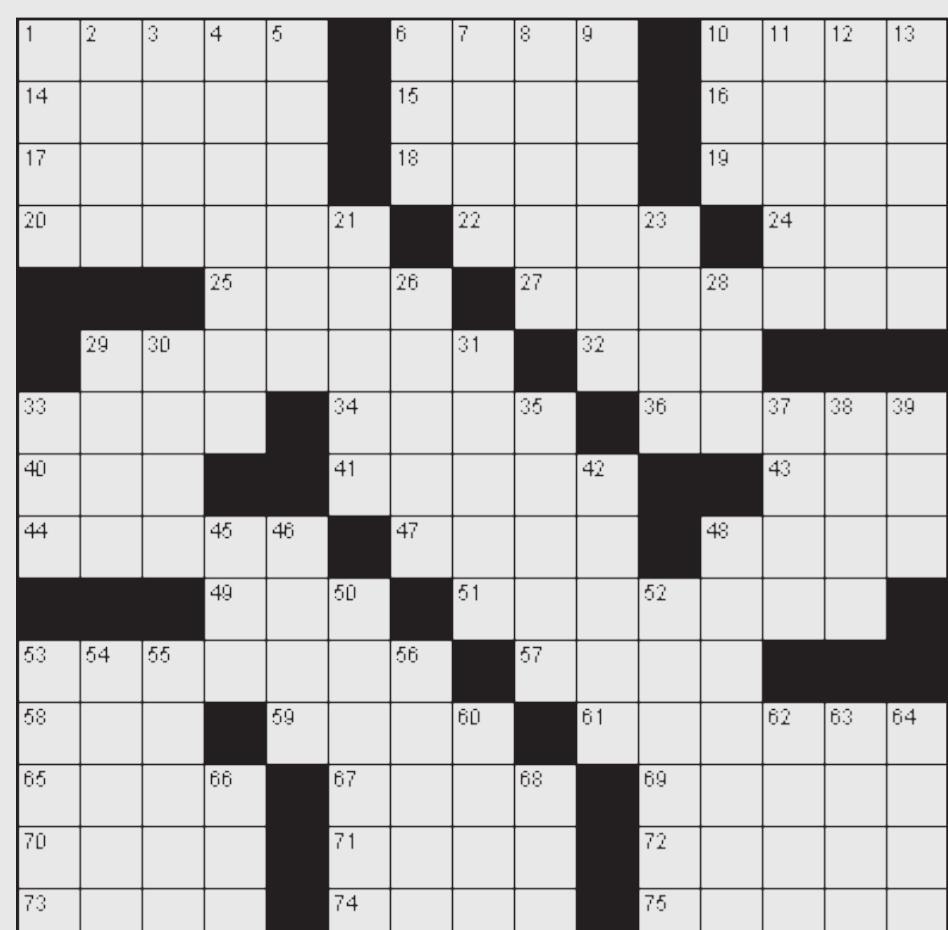
### Square

- Fermentation sediment
- Raise
- In proportion
- Couple
- Circuit
- Allows
- Teem
- Of long duration
- Blemishes
- Leguminous plant
- Odes
- Clip
- Employed
- Horse-drawn vehicle
- Chose
- Aromatic herb

- Counterweight used to obtain net weight
- Beer
- Burden
- Let for money
- Remain
- Graphic symbol
- Stage whisper
- Story
- Unit of area
- Military blockade
- Weapons
- Tardy
- Senior
- Traveled by horse
- Expiate
- Sever
- Australian shorebird
- Part of a church
- Part of a woodwind instrument
- Insane
- Lance
- Title of a married woman
- Storage tower
- Implement
- Affable
- Wrinkle
- Shaped and dried dough
- Part of a church
- Kingdom
- Kind of evergreen plant
- Type
- Drew
- Boundary
- Cervid
- Affirmative
- Indicating maiden name

### Down

- Foreman
- Translucent mineral
- Annoy
- Enfold
- More profound
- Restaurant bill
- Wading bird
- Uplift
- Outcome
- Male sheep
- Drama set to music
- Religious doctrine
- Ooze
- Marine mammals
- Reported information
- Paces
- Solemn pledge
- Field sport



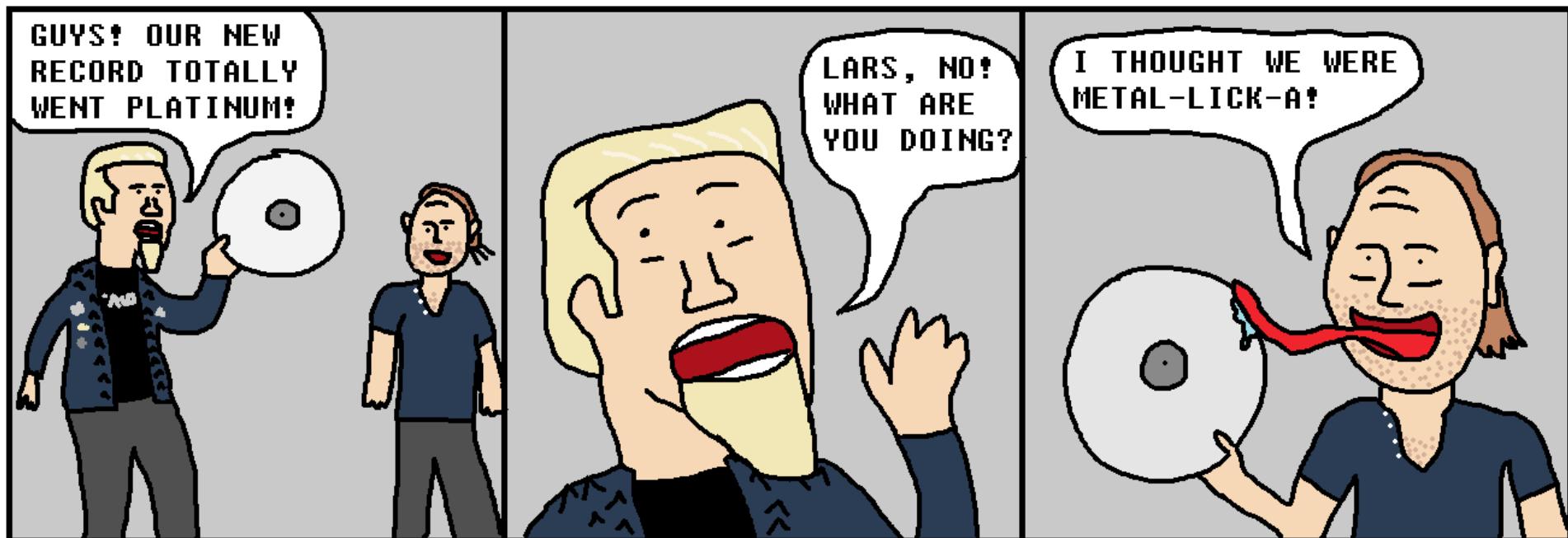
# HUMOR

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NOVEMBER 13, 2017

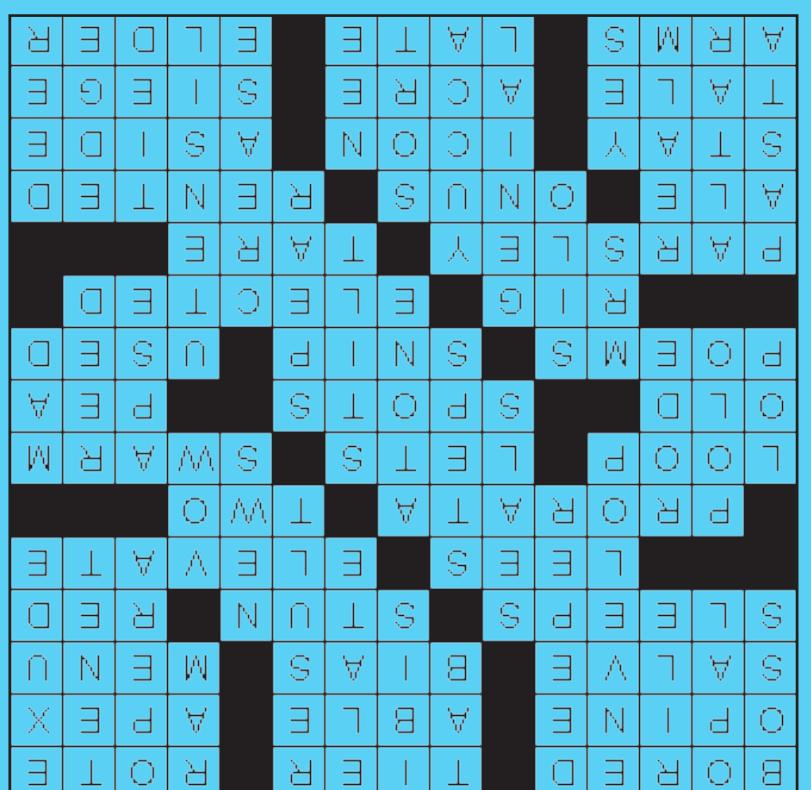
THE CALIFORNIA TECH

## METAL MADNESS

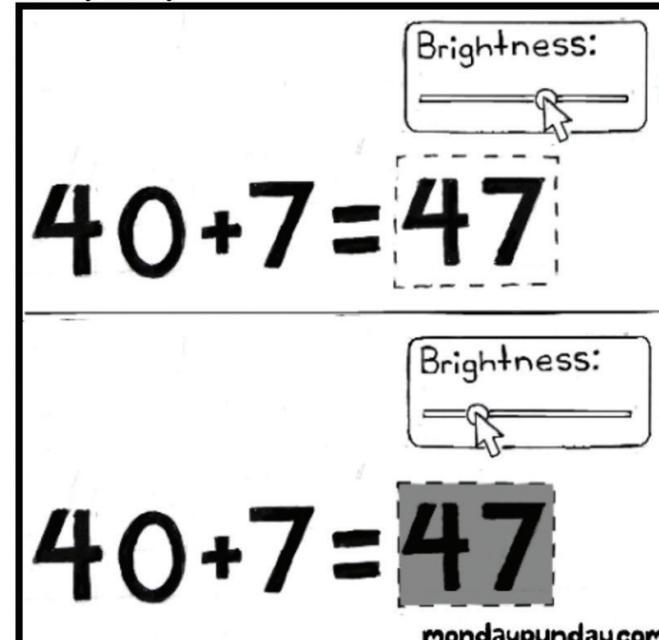


BY DAVID GINOLA

Answers to current crossword (pg 7)

[-http://puzzlechoice.com](http://puzzlechoice.com)

Monday Punday



This picture represents a common phrase, title, or person.

Think you know the answer? Take a guess at [mondaypunday.com/252](http://mondaypunday.com/252)

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