

Opinion: Caltech Orange Needs a Hint of Green

Leonardo Kudsk Holberg
Exchange Student, Ch '24, Page

Arriving at this institution from Denmark, many tropes of the American, and indeed the Californian life seemed confirmed. Breakfasts of waffles, sweltering temperatures and affable attitudes.

However, one aspect has struck me more than any other - the complete disregard for environmental concerns.

From the very first day, the staggering amount of waste generated on this campus has been apparent. Every meal and drink of the day is served on single-use plastics, a practice strictly regulated in Europe. Enormous amounts of 'swag' being handed out, and a seemingly prevalent issue of food waste certainly made an impression. America is known for a culture of excess, but this was unexpected.

The campus Dining Services proudly features "Sustainability Initiatives" on their institute webpage, advertising the most unremarkable of amenities like "eco-friendly reusable utensils and plates that can be used again and again" at just one of their facilities as "Embracing Sustainability".

While the enthusiasm for sustainability is commendable, one might expect that the Dining Services would take a more proactive approach to address one of the Western world's big climate sins - excessive meat consumption. However, from anecdotal evidence, they seem to do the opposite, setting meat as the standard and regarding greener and more moral options as an afterthought.

Material waste is only one facet of the problem here at Caltech. With buildings air-conditioned to levels that require some Caltechians to bring sweaters to lectures, the norm of tumble-drying clothes in this dry Southern California climate and a seeming culture of leaving fume hoods open when not in use, energy consumption remains exorbitantly high - almost matching my home university while having an eighth of the population. A quick glance at the FY 2022 Caltech Sustainability Report reveals no significant reduction of power consumption or emission since the statistics began in the 2000's and 1990's, respectively.

While this Institution promotes their production of 100 percent of net electricity on-site, only a few percent of this is from renewables - even less than the already fossil-heavy California ISO grid. Even if Caltech improved on this, a basic understanding of additionality tells me that actual reductions in consumption is the only way to make a meaningful impact.

Don't think that this excessive consumption only impacts the environment. With California having some of the priciest electricity in this nation, tuition is surely impacted. It too harms Caltech's reputation; a point I suspect might resonate more with the administration than any other. In this year's QS World University Rankings - the first accounting for sustainability - Caltech dropped some ten spots falling from top 10 ranking for the first time ever. With all other top universities scoring above eighty, this institution barely hits forty. With a growing reputation for bad sustainability practices, one could imagine that the important green research occurring at Caltech would be harder to fund, or else attract claims of greenwashing when promoted.

Looking at the big picture, in a country that lacks binding climate ambitions or emissions quota reductions, the impact of reductions from institutions like ours is unquestionably meaningful. Demonstrating significant reductions in emissions can set an example for other institutions, showcasing that deep reductions are achievable at prestigious and ambitious institutions.

As seen in many other universities, ambitious action-plans undoubtedly will lead some to fear that the outstanding research environment will be starved in marginal sustainability initiatives. I think this is overblown. Of course laboratories should do what they can to reduce unnecessary consumption and power usage, and faculty should consider if all conferences are worth flying to, but the truth is that when per capita emissions from comparable institutions like the MIT is almost half of here, something is amiss.



Photo Credit: Lilia Arrizabalaga

Should These Murals Be Painted Over?

Preserving History vs. Rethinking Our Values

Lilia Arrizabalaga
Editorial

In the North and South House undergraduate residences, the walls are filled with colors and murals. The murals have been put up continuously over the years and represent a history of student life.

In order to put up a mural, the design has to be approved by both the members of the house and by housing. Caltech Housing's website states that their mural policy is in place to "support self-expression and also help foster an enjoyable and safe living environment for all house members."

Though the mural policy has changed over the years, in some cases, offending murals have been unofficially grandfathered in. However, as stipulated by the Housing Office, "murals are not permanent" and are subject to removal to create new opportunities for future students to paint murals. And indeed, some murals were painted over during the summer, and more are scheduled for this term. For example, the South Park mural in Ricketts House's Broken Cherry alley was recently removed due to its stereotypical depiction of Asian characters, which was perceived as racist.

While painting over murals does create empty wall space to allow new murals to be put up, some students are upset about

this change. Murals that were flagged by Housing include several containing references to alcohol or other drugs: in particular, Lloyd's iconic "Enjoy Crack" mural, and a painting of Duff, the fictional beer from The Simpsons.

In addition to the murals that violate the policy due to their content, some have been flagged due to their placement over electrical panels or ceiling hatches that are supposed to be clearly marked and findable by someone unfamiliar with the houses in an emergency. The anamorphic mural in Dabney House's Alley 7 is one example.

Other murals that have been left unfinished are set to either be finished or painted over.

While painting over murals does erase a certain history, it does not erase student culture, as it gives new students a blank canvas to put their own artistic endeavors on. All art is transitory, just on different time scales, the continuous cycle of death and rebirth, or painting the walls white and covering them with new murals is in itself art and is necessary for the continuation of the tradition of painting murals.

Lilia Arrizabalaga is the steward for Dabney House, and serves as one of the primary liaisons between students and the Housing Office.

Oops! All Editorials

Michael Gutierrez
Editorial

The keen-eyed reader will notice that there are no reported news articles in today's *Tech*. It's not that there was no news for the writers this week, it's that there were no writers for the news.

I say this not to throw shade at the *Tech* staff - I'm just as much to blame - but instead to highlight a more widespread problem with Caltech students in general: we stretch ourselves too thin. **We're all working ourselves into the ground.**

Of course, this is the nature of Caltech. Overload, overcommit, overwork, overdue. Under-slept, undernourished, underhydrated. I'll spare you my usual rant about the relentless productivity-oriented culture our capitalistic society has drilled into our heads since birth (When you meet someone, one of the first questions you ask them is "What do you do?" You might as well ask them to "state your function."), but having found myself in a particularly stressed and overwhelmed state of affairs this week, and being faced with this awkward blank space on the front page, I felt the need to rant a little bit about this. For better or for worse, all of our news reporters (myself included) had something more important to do than get their articles in. I hope that it was something in the spirit of self-care. But I know it was just as likely an all-nighter to finish a problem set.

For my part, I try to take every opportunity to decompress and deescalate, and it's hard when your brain is not used to taking breaks, but I'm making progress. I challenge you all to do so as well this week.

YOU ARE ENOUGH! ❤️

Corrections

In the previous October 31, 2023 issue of the *Tech*, the article titled "Caltech Graduate Students and Postdocs Contemplate Unionization" incorrectly stated that 450 people had signed union cards. This number was actually the number of people who attended the union rally. According to C/GPU leadership, the number of people that have signed union cards is a supermajority of the grad/postdoc community (more than 450).



Photo Credit: Leonardo Kudsk Holberg

Editor's Note: We want to hear your perspective!

We strive to represent every voice in the Caltech Community with fairness, accuracy, and impartiality in our news reporting. If you think we missed something, or just want to share your thoughts about a topic we've reported on, I encourage you to submit a Letter to the Editor!

Send submissions or contact the *Tech* editorial team at

tech@caltech.edu or

https://tech.caltech.edu/submit

Submissions are due at 12 p.m. on the Saturday before each biweekly Tuesday publication.

Inside This Issue:

2
To Scotland and Beyond:
The Caltech Y Hastrup
Award Experience

3
Local Happenings
in Pasadena

4
ARC Tip of the
Week and SURF
Email Template

6
Institute-Wide Policies
for Use of ChatGPT and
Generative AI

7
2023-24 ASCIT
Budget Breakdown

To Scotland and Beyond: The Caltech Y Hastrup Award Experience

Gabi Twombly
The Outside World

This year, Hope and I (Hope Arnett and Gabi Twombly) were the recipients of the Caltech Y's Hastrup Award. As stated on their website, "the Gunilla Hastrup Adventure Award was created by family and friends of Gunilla Hastrup - a Caltech Y Board Member who loved sharing Swedish traditions, but also enjoyed travel, exploring, and learning about others - to provide students the opportunity to explore their family roots or family origins to gain a better understanding of their cultural identity, and/or explore and learn about a culture different from their own". Thanks to Gunilla's legacy, her family and friends, and the Caltech Y, we were able to connect to our roots this summer for two weeks in Scotland and Ireland! Both our families have roots there. This fact may not be apparent at first glance, and based on where we have grown up, it is also something we have not been able to immerse ourselves in. The curiosity that came with this realization was our motivation for our trip. The Hastrup award enabled us to take advantage of a rare and amazing opportunity to learn more about ourselves. With these experiences, we have developed an appreciation and pride for this aspect of our heritage. It also allows us to pass on what we have learned during our trip with our family at our respective homes. Now, we also get the chance to share our experience with you!

Our journey started in Scotland-Edinburgh specifically. We took a walking tour around the city to acquaint us with the area and history. After the tour, we had the chance to visit Holyrood Palace. This grand palace opened in 1678 and is the official residence of the monarchy whenever they are in Edinburgh. As we traveled around Scotland, we stayed in hostels, which are dorm-style hotels. We enjoyed immersing ourselves in proper Scottish meals! At a pub, we had haggis and "bangers and mash." Before describing what it is made of, haggis is "peasant food," and we both enjoyed it.

Now, the reveal: it is a small "cake" of cow or sheep offal (intestine), suet (fat), oats, and seasoning, usually cooked in a cow stomach. It looks and tastes much better than it sounds—we promise! Hope's family has roots in the Arnot clan ('Arnett' is a variation of spelling for 'Arnot'). The clan's tower ruins and its gardens still stand today. The tower was built in the 16th century, yet the portion that's left was in decent shape. It was amazing to think about how much weather such an old building was able to withstand!

We stopped in Inverness for a day while traveling to a 'Highlands and Isle of Skye' tour, but we made some memorable discoveries here. Inverness is roughly 160 miles from Edinburgh, or a three hour train ride. (Fun fact: Scotland uses the imperial units for distance, but metric units for weights! This means all speed signs are in MPH.) Taking the ScotRail was a very cool experience. The cabin was clean, the trains were very timely, and the views of the countryside were gorgeous. We took a day trip from Inverness to Loch Ness and



the Isle of Skye. As the guide drove us around, we were once again able to enjoy Scotland's lush greenery. On this tour, we learned that Scotland has a "freedom to roam" law, meaning that anyone can access most of the forested/open-field land and land-locked water in Scotland. Most of this land is owned by a few families, so this law enables people to use these lands for recreational and educational uses. We also learned about the origin of the Loch Ness monster folklore. While some sightings over the past centuries led to the stories, the fact that loch is deeper than the North Sea led people's imaginations to wonder what might be at the bottom. Although we didn't see Nessie, the loch was spectacular to see in-person. After heading to Glasgow, we visited the National Piping Centre for one of their "open door" tours. This tour was a chance to learn about the history of anything related to bagpipes. The bagpiper also explained that Scottish men wear kilts for formal events, such as weddings. One of our favorite parts of the trip was being able to play a bagpipe! The bagpiper first taught us a three-note version of the melody to "We Will Rock You" on a recorder, then he helped us play it on a bagpipe! This was an incredibly fun and memorable experience. Next, it was time to fly into Dublin, Ireland. There are many valuable Irish traditions and important cultural activities kept alive in Ireland to this day. We found these in academics, religion, language, landmarks, dance, and athletics. We started off focusing on the academic aspect. Dublin is home to Trinity college founded in 1592 and it was the site of important events and individuals during the Protestant Reformation. We found religious and political conflict between the English and Irish to be a common theme throughout our travels. I find this really interesting to learn about because I come from both a Catholic and Protestant family. We hoped to get in touch with our family in Ireland, but, unfortunately, we were not able to. Nonetheless, we focused on immersing ourselves in Irish culture by participating in a myriad of traditional activities, including sports! We found ourselves at a local field and athletics center. We learned about how the games Hurling (Camogie, for women), Handball, and Rugby are central to Irish culture. In days past, it served as a way to strengthen individuals for defense and attack. However, it also serves to bring the community together. We got to learn the rules and play both hurling and rugby with a group for 2 hours. We got to learn the rules and play both hurling and rugby with a group for 2 hours. Then we were onto Irish danc-

ing! Of course, there is a popular version that most people know in the states which is Irish tap dancing. We got the opportunity to watch some talented performers, and we tried our best to learn some of their steps. We also got to dance in a group for a Ceili dance or progressive dance which was much easier for us to pick up. We worked up an appetite after all the activities so we headed over to a bar to watch the Rugby game and try a Guinness! Spoiler: neither of us enjoyed the Guinness very much, but the game was great. The next day we were off to the Cliffs of Moher and Galway. It was a couple of hours drive to the cliffs but well worth it. The Cliffs of Moher are breathtaking. The Irish are very proud of their natural landmarks and the cliffs are extremely popular. They have made scientific and cultural contributions all over the world. We had the chance to climb the cliffs and listen to the buskers who play different music in different areas along the cliffs, a practice of which spans back to the 70s and 80s. We stopped at Galway, a center of Irish traditional music and a seafood port city. We ate some seafood at a local restaurant during their annual seafood festival and took a walk to the tribal flag display at the center of town. That was the end of the second day! The third day, we rented a car to experience driving on the left side of the road which is the norm in both Ireland and Scotland.

Much of Irish history is intertwined with fact and folklore. The location we headed to next fit this perfectly. It is called Newgrange! Newgrange and the surrounding mounds are 5,000 year old Celtic passage tombs. We got the chance to enter the tomb and see a simulation of the light that enters during the Solstice (a celebratory event in Ireland). We also learned about how the tombs were used as gathering places, the thrones of royalty, but also openings to the afterlife. After the tombs, we drove to Belfast. Belfast and the nearby area of Londonderry are very important locations in the struggle between Irish nationalists and unionists. In fact, we learned that Northern Ireland still keeps ties to the British and uses the pound, and we actually crossed a border from Southern Ireland who is independent and uses the euro. Much of the conflict in Ireland stems from the Anglo-Norman invasion which eventually led to such a deep political divide that "The Troubles" began from 1968 and 1988. Many of the events that led to "the Troubles", like religious conflict and that of using sheep to replace tenants who worked the land, could be an explanation for the movement of our families through the countries and eventually to America. Another large

emigration we learned of that could have affected our families ties to the Great Famine in the 1840s. A main source of sustenance was the potato crop that was unable to be harvested during this time leading to widespread sickness. We spent a few more days in Ireland doing activities like the Blarney Stone at Blarney Castle, horseback riding, Giant's Causeway, choir evensong, and afternoon tea. After two weeks, we flew back to the US.

None of this would've been possible without Gunilla and the Caltech Y. I highly recommend students check out the travel awards, and other cool programs, available through the Caltech Y. They host cultural excursions in LA, volunteer opportunities, educational programming, hikes, and more. Check out their website, caltechy.org, for more information!



An advice column about life, love, classes, and everything in between! Brought to you by the one and only California Tech.

Q: How do you deal with academic stress and anxiety at Caltech?

Here is an allegory to enlighten you about this manner:

Inner Voice 1 (Superego): Oh sh**t, not again! Why does this always happen at the worst possible moment? I can't believe I'm stuck in here with explosive diarrhea. Why does my stomach betray me like this?

Inner Voice 2 (Ego): Okay, breathe. It's going to be fine. Just breathe. Maybe it's a passing thing. Deep breaths. I can get through this.

Inner Voice 1 (Superego): Passing thing? It feels like my insides are staging a rebellion! This is a disaster. What if someone needs to use the bathroom after me? What if I'm in here forever?

Inner Voice 2 (Ego): Forever might be a slight exaggeration. Focus on the now. Can I muffle the sound somehow? Maybe if I flush strategically? Oh, who am I kidding? It sounds like a war zone in here!

Inner Voice 1 (Superego): They're going to know. Everyone out there will know what's happening in here. I'll never be able to look them in the eye again. Why me?

Inner Voice 2 (Ego): Okay, plan B. Maybe if I turn on the faucet, it'll drown out the noise. Yes, that could work. Brilliant! Crisis averted...hopefully.

Inner Voice 1 (Superego): What if someone hears the faucet and thinks I'm washing my hands without realizing the storm happening on the other end? It's all going to come crashing down!

Inner Voice 2 (Ego): Think positive. At least I'm in the bathroom, right? Imagine if this happened somewhere public. Silver linings, right?

Inner Voice 1 (Superego): Public? This feels public enough! I'm a prisoner in my own bathroom, and my stomach is the warden. How did it come to this?

Inner Voice 2 (Ego): Focus on the relief you'll feel when this is all over. Literally. It'll pass. Pun intended. I just need to ride this out and emerge from this porcelain prison victorious.

Inner Voice 1 (Superego): Victorious? More like defeated and embarrassed. This is a low point, even for me. Can I ever show my face again?

Inner Voice 2 (Ego): Of course you can. People forget. They have their own embarrassing moments. This will be a distant memory soon, and you'll be back to laughing about other people's bathroom misadventures.

Inner Voice 1 (Superego): I hope you're right. For now, I'll just wait it out, try not to make any sudden movements, and pray for mercy from the stomach gods. Please, let this end soon!

Conclusion: I hope that this has enlightened you and answered your question.

Q: Hey quail, HOW are you doing?

In the silent corridors of my mind, I find myself grappling with the haunting question that echoes through the chambers of my consciousness: What is the meaning of existence? A question that reverberates like a mournful lament, seeking solace in a universe seemingly indifferent to our existential pleas.

As I navigate the labyrinth of life, I am confronted by the harsh reality that meaning, like elusive mist, slips through my fingers. Each day unfolds as a series of mundane tasks, a monotonous rhythm that plays on the strings of routine. I traverse the terrain of existence, yet the landscape appears desolate, devoid of a purpose that resonates with the depths of my soul.

The weight of the absurdity becomes a heavy burden, pressing down on my spirit like an unrelenting force. It's as if I am wandering through a vast desert, the grains of sand slipping through the hourglass of time, with no oasis of meaning in sight. The futility of our endeavors becomes painfully apparent, like Sisyphus eternally rolling his boulder up the hill only to watch it cascade back down.

In the quest for meaning, I grapple with the absurdity of human pursuits. We construct intricate narratives, build towering monuments, and forge connections with others, all in the pursuit of significance. Yet, in the grand cosmic tapestry, our endeavors seem but fleeting strokes on a canvas that stretches beyond the limits of comprehension.

The ephemeral nature of life casts a shadow over our attempts to find purpose. We yearn for significance in the face of an indifferent cosmos, our desires echoing in the vast emptiness. The ache of existential loneliness sets in, a gnawing pain that transcends the physical, reaching into the core of our being.

In the face of this existential void, I grapple with the inevitability of mortality. The specter of death looms, rendering our endeavors seemingly inconsequential. The brevity of our existence intensifies the existential anguish, a poignant reminder of the transience of all that we hold dear.

Yet, in the midst of this painful reflection, a paradox emerges. Perhaps the very act of questioning the meaning of existence, of wrestling with the void, is a testament to our humanity. The act of yearning, the struggle - they become the threads that weave the tapestry of our experience. And in this, there is a peculiar beauty, a tragic poetry that unfolds in the dance between despair and resilience.

As I stand on the precipice of the unknown, I confront the lack of inherent meaning with a reluctant acceptance. Perhaps meaning is not a fixed point to be discovered but a fluid, ever-changing essence to be forged in the crucible of our existence. In this painful reflection, I find a sliver of solace - the recognition that the search for meaning is a journey, and in the journey itself, we may find fragments of the elusive purpose we so fervently seek.

Q: Quick, what are some good recipes for Thanksgiving?

1. Deep frying a turkey INDOORS. If you want a splendid and thrilling adventure you can deep fry a turkey in your kitchen! Heatup a gigantic tub of oil to some really hot temperature, then drop your frozen turkey right in the bowl. Right as the turkey is dropped make sure to stick your head over the pot to see if your turkey is cooking well! Do note that this may explode on you and burn your face off, BUT (most importantly) you can get extensions on your assignments!

2. Random ground mushrooms. Walk around the area and pick random mushrooms off of the ground (the Huntington has a good collection)! Just eat these for your Thanksgiving dinner for a fun game of mushroom roulette. Maybe it's edible, maybe you will get really sick, or (most excitingly) you can get transported to a different dimension!

3. Infusions! Find some fun, unusual things to infuse into sauces. Perhaps some herbs or essential oils. Then everyone can try and guess what it is.

4. Microwaved honey buns. If you microwave a honey bun for long enough it will start to glow! It is a delightful treat and even a fun projectile to throw!

5. Gasoline and Acetone. Drinking these liquids make me personally feel warm and happy inside. It tastes even better if you heat it up! For a special treat you can put some styrofoam in it!

6. Rocky mountain oysters. A delightful delicacy - would recommend! I love testicles!

To submit questions for next week's "Question the Quail", fill out the google form:

<https://bit.ly/41rEQIN>

Caltech's Meditation Mob Begins Its 10th Year

Lee H. Coleman, Ph.D., ABPP, Senior Clinician, Counseling Services

Way back in October of 2014, I rolled the dice and decided to see if there was any interest on campus in practicing mindfulness meditation in a group setting. Within a few weeks, we had a steady crowd coming to the Winnett Student Center, and I was delighted that the gamble had paid off. We dubbed ourselves the Meditation Mob, and last month we began our 10th consecutive year. This year is especially exciting because we're finally returning to in-person meetings - and now that we're back in person, I wanted to kick-start our membership again. I'm grateful to the Tech for the opportunity to tell you about what we do, and to invite you to come join us.

If you're not familiar with mindfulness meditation, it looks deceptively simple: Keep your attention on whatever you're doing, and practice bringing some acceptance and openness to whatever shows up. Sounds easy, right? We probably think that we do this anyway - but the research on attention tells a different story. Would you believe that we seem to give our full attention to what we're doing only about half the time? It's not that that's automatically bad or wrong, but it turns out that mind-wandering seems to correlate with stress, anxiety, and negative emotional states. I seem to be an expert into drifting into mental arguments with someone who isn't even there - I get worked up and annoyed, and when I finally come back to my senses, I suddenly realize that I've been standing in the shower for 20 minutes and can't remember if I've even shampooed yet or not.

Our minds wander like this all the time; it can feel like living on autopilot. When we're not showing up for our lives,

we miss out on the color, texture, and richness that's been right in front of us all along. Showing up on purpose allows us to live more fully, to appreciate what's good, and to look squarely at the things that aren't so good.

But if this is so good for us, why don't we do it more often? This is where the our weekly group comes in: We treat present-time awareness as a skill that can be taught and practiced, and we spend time each week practicing these skills. This skills-based focus makes our group appropriate for anyone who's interested. And just to be clear, even though some forms of meditation have a spiritual component, we're committed to teaching these skills from a secular perspective - everyone is welcome.

Present-time awareness makes a great home base to build other skills upon. In fact, we teach and practice four building blocks of emotional well-being as identified by researchers such as Richard Davidson from the Center for Healthy Minds. 1. Resilience / rebounding from negative emotions 2. Positive outlook 3. Attention 4. Caring for others

Again, these aren't inborn personality traits or abstract aspirations; they're skills that can be learned and practiced, and we teach them as such. I want to say a little bit more about each of these skills and how we approach them.

Resilience / rebounding from negative emotions

• We regularly practice the skill of equanimity - that is, bringing a sense of acceptance to experiences that we can't immediately change. You can't make yourself learn to play the piano overnight; you'll practice when you can, and at the same time you have to be ok with being where you are.

• We practice mindful awareness of our emotional states, which shows us that emotions are transient, and that there are multiple ways of engaging with emotions. We also practice not judging ourselves for having any particular emotion; our feelings don't define us.

• We regularly practice compassion for ourselves and others so we don't compound life's problems with harsh judgments that don't help.

Positive outlook

• We regularly practice the skill of lovingkindness for ourselves and others. We practice attitudes of extending well-being to ourselves and others on the basis of our common humanity, without engaging in moral judgments that can leave us feeling that well-being must first be earned or deserved.

• We also practice sympathetic joy - the skill of being happy for others' successes without comparing ourselves to others. This gives us an alternative to feelings of enviousness or jealousy.

Attention

• Just as I mentioned above, every other week we practice the skill of mindful awareness - that is, paying attention nonjudgmentally to our experience in the present moment, and gently guiding our attention back when it strays. Staying aware of and attuned to our moment-by-moment experience helps us focus on the texture and color that's already there instead of drifting through our day.

Caring for others

• Our loving kindness practice regularly includes other people - even (especially even) people whom we may find challenging or difficult. This helps us learn to respond to others on the basis of common humanity instead of deciding if someone earns or deserves our compassion and goodwill.



What to Expect

I use the term concentration practices to refer to the skills that teach us to pay attention, and I use the term heart practices to refer to the attitudes that we strive to bring to our experience. What does this look like on a given day? It depends on which week of the month it is:

1st Tuesday of the month: This will be a concentration practice to build mindful awareness, usually focused on one specific thing such as feeling our breath in our body, hearing sounds around us, etc.

2nd Tuesday of the month: This will be one of the heart practices - lovingkindness, compassion, equanimity, or sympathetic joy.

3rd Tuesday of the month: This will be a broader concentration practice focused on all of our senses: What we can feel, see, hear, smell, taste, touch, and also our emotions and thoughts.

4th Tuesday of the month: This will again be one of the heart practices, almost always a different one than we practiced during the 2nd Tuesday.

5th Tuesday of the month: Fifth Tuesdays are rare, so when they show up we do something fun or something off the beaten path that we haven't done in a while. We've gone outside for a mindful walk, listened to music together, and even had some food together.

Our community is the container that makes all of this possible. Whether it's just 2 people or a dozen, we always start with building connections with one another. Being part of a group with shared ideals is a lovely way to be less alone and more connected, and it makes it even easier to try out the skills involved with making ourselves and the world a little bit better.

We'd really love for you to be part of our group. We meet every Tuesday from 12:00 - 12:50 in Club Room 2 in the basement of Hameetman Center. We'll always finish in time for you to get where you need to go next. If you can't join us in person, you're welcome to join us via Zoom; the QR code attached to this article will have the address, as well as instructions on signing up for our weekly reminder e-mail list. And if you can't make it on Tuesdays at noon, the QR code also points to our archive of audio and video recordings that you can listen to on your own schedule. We're looking forward to seeing you!



Local Happenings in Pasadena

Alicia Zhang
The Outside World

After 20 years, ArroyoFest comes back!

"This is for all the people who dream of a better city with safe bikeways, public transit, parks and open spaces, walkable streets and affordable housing and a visible, diverse cultural heritage," says Marcus Renner, co-organizer of the first ArroyoFest.

This past Sunday, thousands in and around the Pasadena area left their cars at home and dusted off their rollerblades, skateboards, and bikes to take the (hopefully not) once in a lifetime chance to traverse the closed Arroyo Seco Parkway. The six lanes and six miles of the winding freeway were closed to cars from 7 a.m. to 11 a.m. on Sunday.

The Arroyo Seco Parkway, now known as the 110 or Pasadena Freeway, is California's first freeway, and also one of America's oldest freeways. First opening to traffic in 1938, the freeway was an important milestone in the transition between parkways and the modern freeway. Its previous greenery in the median has now slowly given way to steel guard rail and concrete barriers, but Caltrans has had plans in place to slow-

ly restore its scenic worth since 2010. Organizers hope that the event raises greater awareness of the surrounding hillsides and increased visibility of the greenery and parks along the parkway, hence the name. The Metro had awarded \$496,000 to ActiveSGV, a nonprofit organization, in an effort to highlight the Metro A line (formerly Gold Line) that runs alongside the 110 Freeway.

Seven years before the first ever CicLAvia, the first ArroyoFest took place in 2003. After 20 long years, the second ArroyoFest event kicked off bright and early with a 10K run, and soon more than 8,000 people came to join this rare opportunity and the welcome quiet as bikers zipped past skaters and parents with baby strollers while blasting music on speakers and bubble machines. The kids who had biked the same event in 2003 were now grown and taking their own children along this historic passage. One such rider had brought out his pennyfarthing, the same bike he had rode at the first ArroyoFest. With such an amazing turnout, it was a beautiful glimpse into a future without traffic and pollution.

Here's some fun events to check out with your friends!

Wat Thai Temple Food Market

Every weekend
8 am - 5 pm
8225 Coldwater Canyon Ave, North Hollywood, CA 91605

Come see the oldest Thai Buddhist temple in the country amidst a vast array of authentic Thai street food. Bring your cash in exchange for \$1 and \$2 tokens to spend at the twenty or so vendors featuring specialty gelato flavors, crab fried rice, duck soup, fried bananas, \$3 grilled skewers of all kinds, and various coconut desserts. The food is a steal for the price and quality, since each vendor's precious spot is earned through winning a food competition.

PCC Flea Market

December 3 and every first Sunday monthly
8 am - 3 pm, FREE
Pasadena City College parking lot

The PCC Flea Market occurs on the first Sunday of every month. The parking lot fits over 400 vendors and mainly features antiques and collectibles. If you're a big fan of vinyls, there are over 50 vendors selling records in the parking structure. Many students have found great finds on jewelry, clothing, skateboards, and other things you don't think you'll need.



Rose Bowl Flea Market

November 12 and every second Sunday monthly
9 am - 3 pm, \$12 regular admission

1001 Rose Bowl Drive, Pasadena, CA

The legendary Rose Bowl Flea Market has been happening on the second Sunday of every month for over 50 years with over 2,500 vendors in the Rose Bowl Stadium. Some vendors accept only cash so make sure to hit up an ATM for those sweet flea finds. A word of advice: to avoid the long box office lines, you can purchase your ticket ahead of time on Eventbrite at their website. If you're really an early riser, VIP admission is \$20 which allows you to access the flea market from 5 am to 9 am, meaning you can get to those valuable finds before most of the crowd.

Plein Air Art Exhibitions

Fridays 2-6 pm, Saturday & Sundays 1-5 pm, FREE
Armory Center for the Arts
145 North Raymond Avenue, Pasadena, CA

Come explore plein air works from local artists including Caltech's very own Hillary Mushkin, a research professor of art and design. She is the founder of Incendiary Traces focusing on the limits and power of human and technological observation. This plein air exhibition is focused on the experience and process of being in our physical landscapes in the context of public and private space, and land surveying and settling.

Photo by Jackie Castillo, Armory Center for the Arts.

ARC Tip of the Week:

Drop Day is this Wednesday and winter registration is this Thursday!

Drop Day Wednesday
Drop day is this Wednesday, November 15th. 5PM is the deadline to drop courses, switch sections, and change grading schemes (e.g. from grades to p/f).

Registration Thursday
Registration for fall term opens Thursday, November 16th. It will begin at 8am for juniors and seniors, and 8:30am for sophomores and frosh. All courses should be entered on REGIS. A short guide to how to use REGIS and enroll in courses can be found here: https://www.dropbox.com/s/4wzq13np06ppif/arc_adventures_regis_m4v?dl=0.

The schedule / list of courses for winter term can be found here: http://schedules.caltech.edu/WI2023-24.html?fbclid=IwAR0r2omOK54BHnvyikLTVxdzQFWf5ILbcnrkegYHtE803hMs9sRl1bk2-o-0#top_of_the_page

Registration Tips and Updates

- PS 12 (intro SS) is being offered winter term this year.
- If you are a frosh considering majoring in Biology, BioE, Chemistry, ChemE, CNS, or a related field, you should strongly consider taking Bi 8 winter term.
- Bi1C and Bi1I are both being offered winter term this year. Make sure to apply by November 10th if you would like to enroll. Both of these courses fulfill the introductory biology requirement and are open to all grades.
- If you are a frosh considering the CS option, we recommend enrolling in CS 2 winter term. If you are taking CS 2 but did not take AP Com puter Science in high school, we recommend enrolling in CS 11 Section 2, which is designed to be taken alongside CS 2 and provides Java fundamentals support.

How to Reach Out to Labs About SURFs

SURF application season is approaching! SURF applications are generally due at the end of February, but students tend to start reaching out to labs about potential research opportunities from now through January. The ARC's website has MANY resources to help you find research, write your SURF proposal, and learn more about research. The first step is sending a potential mentor an email to express your interest. Please read our tips and example email here: https://sites.google.com/site/arc-caltech/resources/research?authuser=0#h.p_2ZELu6cp4D_t

Template for SURF Email

Dear Professor _____,
My name is <John Smith> and I am a <frosh/sophomore/junior> studying _____ (1). I am interested in _____ (broader topic) _____. I saw your paper on _____ (narrower topic within the broader topic above) _____ and thought it was fascinating. I would love to contribute to your lab's research on _____ (project name) _____. I've had previous experience with _____ (something relevant, if applicable) _____ (2).

Do you have any positions available in your lab this summer? If so, would you have time for a thirty minute conversation to discuss a potential SURF sometime in the next few weeks?

Thank you,
<John Smith>

- (1) alternatives to "studying _____" include: who took _____ class with you, who saw you talk at _____ (pizza course) _____ lunch seminar, ...
- (2) describe previous research, lab skills you have, relevant course work, etc.

Example SURF Email

Dear Professor Bob,
My name is John Smith and I am a frosh studying environmental science and engineering. I am interested in human impact on biodiversity. I saw your paper on the using existing satellites to quantify the number of polar bear species in the Arctic and thought it was fascinating. I would love to contribute to your lab's research on remote sensing. I've taken CS 1 and CS 2, and previously did an independent project remotely tracking deforestation through my AP Capstone Project in High School.

Do you have any positions available in your lab this summer? If so, would you have time for a thirty minute conversation to discuss a potential SURF sometime in the next few weeks?

Thank you,
John Smith

The California Tech Journalistic Principles

The News-Opinion divide
All articles shall be clearly and explicitly labeled as either News or Opinion/Editorial.

News articles report on topics that have been thoroughly researched by Tech staff writers, and should be impartial to any one point of view. In a News article, the writer shall not insert their own personal feelings on the matter; the purpose is to let the facts speak for themselves. The Tech assumes full responsibility for all content published as News.

In contrast, Opinion articles (including Letters to the Editor) may be written and submitted by anyone on any topic; while the Tech will edit all published Opinions to ensure no wrong or misleading information, we do not otherwise interfere. Again, the role of the Tech here is to help the whole campus communicate their ideas and share their stories, not promote specific ones. Content published as Opinions do not necessarily represent the values of the Tech or our staff.

An exception to this is Editorials, which are written by Tech staff and represent official opinions of the Tech. Any information and sources in Editorials shall be held to the same standard as News reports, but there is no promise or expectation of impartial coverage.

Fair Reporting

All facts of major significance and relevance to an article shall be sought out and included. If an assertion is made by a source about a specific person or organization, they shall be contacted and given a reasonable amount of time to respond before publication. In other words, no second-hand information or hearsay shall stand on its own.

Quotes and Attribution of Information

Facts and quotes that were not collected directly by Tech reporters shall be attributed. Articles shall clearly differentiate between what a reporter saw and heard first-hand vs. what a reporter obtained from other sources. Sources' opinions are just that — opinions. Expert opinions are certainly given more weight, as are witness opinions. But whenever possible, the Tech shall report facts, or at least corroborate the opinions. A reporter's observations at a scene are considered facts for the purposes of a story.

Sources

All sources shall be treated with respect and integrity. When speaking with sources, we shall identify ourselves as Tech reporters and clarify why we would like to hold an interview. Sources for the Tech will never be surprised to see their name published.

In published content, we shall put our sources' quotes into context, and — as appropriate — clarify what question was being answered.

We always ask that a source speak with us on the record for the sake of journalistic integrity. We want our audience to receive information that is credible and useful to them. Named sources are more trustworthy than unnamed sources because, by definition, unnamed sources will not publicly stand by their statements. That being said, we realize that some sources are unwilling to reveal their identities publicly when it could jeopardize their safety or livelihood. Even in those cases, it is essential that the Tech Editor-in-Chief knows the identity of the source in question. Otherwise, there can be no certainty about whether the source and their quotes were falsified.

This also applies for Letters to the Editor and Opinion submissions to the Tech. If the author requests that their piece is published anonymously, they must provide a reason, and we shall consider it in appropriate circumstances. No truly anonymous submissions shall be published. Conversely, no submissions shall be published with the author's name without their consent. When we choose not to identify a source by their full name, the article shall explain to readers why.

Corrections Policy

We strive for promptness in correcting all errors in all published content. We shall tell readers, as clearly and quickly as possible, what was wrong and what is correct.

Corrections to articles will be immediately updated on the online version of the Tech at tech.caltech.edu. If appropriate, corrections will also be published in the following Tech print issue.

Honor Code Applies
In any remaining absence of clarity, the Honor Code is the guiding principle.

What Does it Mean to be Original: Caltech's Stance on AI Tools

Elizabeth Field
Editorial

In the last couple of years, ChatGPT and other AI chatbots have surged into the spotlight as "hot topics" across various domains. From our daily interactions on social media to headline news, these conversational artificial intelligence entities have become prominent features of our lives as well as in the classroom. They've found their way into our academic discussions, created questions on our homework assignments, and routinely make appearances in the fine print at the bottom of course syllabi. The question looming over students is: Does ChatGPT present a gateway for academic dishonesty, allowing students to cheat on assignments and compromise their learning? Conversely, could ChatGPT be a revolutionary tool, providing access to a wealth of information to enhance and facilitate learning?

Caltech finds itself in a unique position regarding the use of ChatGPT, as there is no comprehensive institute-wide policy on its utilization. Beyond the general guiding principles of disclosure, data and information protection, content responsibility, and Caltech's honor code (as outlined on <https://www.imss.caltech.edu/services/ai/>), the responsibility falls upon individual professors to decide the role these chatbots play in their courses, and sometimes they leave that decision to the discretion of the students. Yet, amidst this freedom, a common thread persists—the expectation that students adhere to the Honor Code that defines the ethos of Caltech.

With the emergence of AI chatbots like ChatGPT, we face uncharted territory within the already turbulent waters of the assignment in ways that make running to ChatGPT more work than it's worth.

However, even if we can solve usage in the classrooms, another problem arises: admissions. For the Class of 2028 application cycle, Caltech issued a statement asserting that essays are a means for the institution to get to know the applicant on a personal level. This extends to online tools being used similarly to how one would consult a teacher, parent, or friend during the essay-writing process. Caltech places trust in its applicants not to cross ethical boundaries. Furthermore, a new question has been added to the application process, asking applicants if they used artificial intelligence tools in their submissions and stating that their answers will remain hidden until after the application cycle concludes, almost like an experiment in and of itself.

Currently, Caltech's statements regarding the use of tools like ChatGPT focus on strategies to either facilitate their productive use or mitigate potential disadvantages.

The Warped Side of Our Universe

Lilia Arrizabalaga
Culture

Out in the depths of space lie phenomena beyond our understanding. They lie in the realm of quantum gravity, the insides of black holes, wormholes, and gravitational waves. Kip Thorne (BS '62, Blacker) and Lia Halloran explore these topics through the mediums of verse and art in their new book, *The Warped Side of Our Universe*.

I was lucky enough to get an interview with Thorne and Halloran for the Tech in anticipation of their talk at Caltech on Monday the 13th. They were both incredibly passionate about this project and I was honored to be able to talk to them about it.

Overall, the integration of AI chatbots like ChatGPT into academia and admissions at Caltech brings forth a complex array of ethical questions. As technology continues to advance, institutions must grapple with the dual challenge of fostering innovation while safeguarding academic integrity. Caltech's nuanced approach, emphasizing trust, transparency, and practical strategies, showcases an ongoing commitment to navigating the ethical landscape and maintaining the institution's high standards, and an underlying understanding that the responsibility to do so is just as much on the student.

So the real question becomes what are our standards for "original" work? Could you tell that this article was written almost entirely by Chat GPT? Does the fact that I spent significant time modifying the output, by word, entering new ideas, changing old ones, and evaluating if this article was truly an accurate portrayal of my thoughts mean that this is my work, despite very few of these words being isolatedly mine? I don't know and that's the point.

The project began 13 years ago as an article for *Playboy* magazine with words by Thorne and art, including some paintings featuring Halloran's wife, Felicia, by Halloran. However, the article was rejected by *Playboy* because the depictions of Felicia were not up to their "Femlin standard". However, even after the rejection, the project grew and grew. While originally the book was written in prose, seeing the words side by side with the art inspired Thorne to write the book in more verse form.

The project evolved and grew a lot over the 13 years into its final form, a 250-page book presenting some of the deepest mysteries of our universe in an accessible manner accompanied by captivating artworks. The science is presented at a level that it can be understood by people without a background in physics and Thorne and Halloran hope their book reaches a wide audience and inspires them to look up at the stars with a newfound curiosity.

The book weaves together cutting-edge science about gravitational waves (the topic which won Thorne and 2 others a Nobel prize in 2013) and a more intimate telling of some of the science. By using Halloran's wife Felicia as a model in many of the images and as the subject in several stories describing the effects of various phenomena, the book gains a more personal and intimate touch that is not common in the genre.

The book combines science and art in a way they don't normally meet. However, for Thorne, this combination is not unusual, and he says he likes to think about problems more intuitively and artistically, and equations are simply a result. Thorne says "when I'm working as a physicist, I don't think in terms of mathematics. Mathematics is slow; it is cumbersome; it is truth; and, in some very deep sense, zipping into existence for a split second and exiting just as fast. We don't yet know if we will ever find wormholes or what we would find in them. The Warped Side of Our Universe explores these questions in an incredibly engaging and beautiful way that brings advanced physics concepts to life.

For Thorne, the hardest part was writing in verse. This was his first large project written in verse and he said he struggled sometimes finding the rhythm and meter to the verse. I asked if he had any plans to write more poetry in the future and he said he had many other projects to do first before even thinking about writing more poetry.

There is much we don't know about the universe, wormholes — if they exist, could be full of quantum fluctuations, atoms zippering into existence for a split second and exiting just as fast. We don't yet know if we will ever find wormholes or what we would find in them. The Warped Side of Our Universe explores these questions in an incredibly engaging and beautiful way that brings advanced physics concepts to life.

Amazon Skymall

Welcome back to Amazon Skymall! In this column, we hold a raffle where we [not] randomly select one of our lucky readers and give them the item of their choice from these hand picked selections! Enter this week's raffle by using the QR code or the link below:



\$14.97



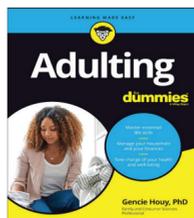
\$20.00



\$7.92

NO

NO Free



\$16.99



\$13.78



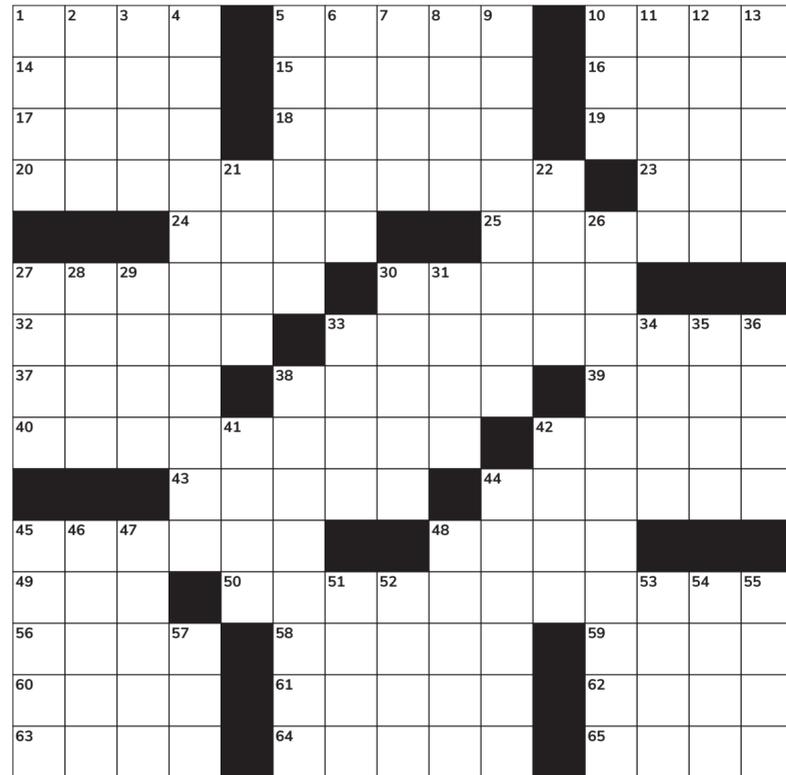
\$24.99



The California Tech Crossword: "Gene Pool"

ENRIC ADILLON AND MADELINE HICKS

- ACROSS**
- 1 Lip application
 - 5 Aladdin's accomplice
 - 10 On a cruise
 - 14 Hip bones
 - 15 Upstate New York city
 - 16 Buzzed
 - 17 Cozy place
 - 18 Fashion model Cheryl
 - 19 Banks of reality TV
 - 20 He wrote the book "Kiss and Make-Up"
 - 23 Huck's pal
 - 24 Some banknotes in Kyrgyzstan
 - 25 Foul language in basketball?
 - 27 Army helicopter
 - 30 Infant-food consistency
 - 32 Printing prefix
 - 33 He likes to sing in the rain
 - 37 "___ little harder"
 - 38 Delhi garb
 - 39 Tomato variety
 - 40 It may be part of a Canadian tuxedo
 - 42 Our sun, to astronomers
 - 43 Fertilizer produced by birds and bats
 - 44 Southern crop
 - 45 Not paid up
- DOWN**
- 1 Google alternative
 - 2 Soothing succulent
 - 3 Safari sight
 - 4 Breaks 100
 - 5 Moment to act
 - 6 Knocks out, in brief
 - 7 Its oil is an insecticide
 - 8 "Othello" baddie
 - 9 Catches in a trap
 - 11 Direct a comment at
 - 12 Subject of a 2001 energy industry scandal
 - 13 Athlete's peak performance
 - 20 Communist distraction for Robert Oppenheimer
 - 21 NYC neighborhood
 - 22 Canine : doggo :: serpentine : ___
 - 26 Maybe a hunter, cheetah, or documentarian
 - 27 Indie rock band with the 2014 hit "Left Hand Free"
 - 28 1958 Nobel Peace Prize winner
 - 29 "Right back ___!" ("Same here!")
 - 30 Dog, south of the border
 - 31 Single item
 - 33 Tide alternative
 - 34 Football Hall-of-Famer Ronnie
 - 35 "HAHA," in text-speak
 - 36 What a knitter might have a ball with?
 - 38 Gets through easily
 - 41 Predicate's partner: Abbr.
 - 42 ___ alone (have no help)
 - 44 Direct delivery from a local farm
 - 45 "Odds are..."
 - 46 Sci-fi/fantasy novelist ___ Okorafor
 - 47 Went out with
 - 48 Make good
 - 51 Lean-in to bat or yoga
 - 52 Part of a sentence
 - 53 In the past
 - 54 Corp. bigwigs
 - 55 Superman's alter ego
 - 57 "Do I have ___ takers?"



2023-2024 ASCIT Budget Released

Jonathan Booker
ASCIT Treasurer

As the academic year progresses, the Associated Students of the California Institute of Technology (ASCIT) budget undergoes changes, maintaining a dynamic approach to financial management. Key to this strategy is the projection of a surplus, aimed to be over 10% of

the annual dues, to safeguard against unforeseen expenditures and ensure a stable financial end to the Board of Directors' term. The budget distinguishes between internal and external funding sources. Internal funding is strictly derived from ASCIT dues, while external funding includes surplus from the previous year and other revenue streams, such as

ASCIT Formal ticket sales and MHF funding. A detailed breakdown is provided in an accompanying table and pie chart, highlighting how each cent of the dues is allocated. Notably, allocations directly benefiting the houses are marked in red.

ASCIT Funding Categories:

There are five primary

areas of funding within ASCIT, each encompassing various allocations for specific functions and initiatives:

Publications: This includes 'The California Tech', which has resumed printing and receives a mandated 10% of ASCIT dues; the 'Big T', funded through a specific assessment; and 'little t', revived after six years and supported by advertising revenue.

Operations: This broad category covers general operations for unforeseen expenses, the Student Activity Center (SAC), and the Interhouse Committee (IHC), among others. The IHC, in particular, faces funding challenges as the Office of Student Experience (OSE) did not support any of its expenses during rotation despite declaring that they support rotation. The Academics and Research Committee (ARC) and Staff Awards also fall under this umbrella, supporting academic and staff recognition initiatives.

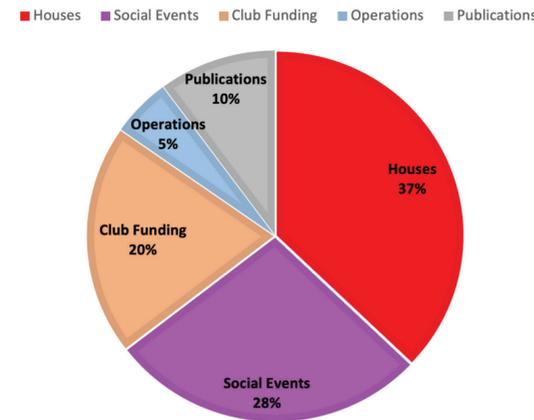
Projects: Efforts like the renovation of the Soc-Closet, the denied proposals for SAC study rooms, and the new silk-screen t-shirt printer in the SAC highlight ASCIT's commitment to improv-

ing student facilities.

Social: The budget for social events like ASCIT-Formal, Techstock, and Midnight Donuts illustrates the effort to maintain vibrant student life. Significant funding is allocated to events, interhouse activities, senior boxes, and cross-house events, each contributing to a rich campus culture.

Club: The initial and additional event funding for clubs underscores ASCIT's support for diverse student-led initiatives.

ALLOCATION OF DUES FOR 2023-2024



GROUP	TOTAL ALLOCATED	PERCENT OF DUES ALLOCATED	AMOUNT ALLOCATED PER A STUDENT
HOUSES	\$37,600.00	37%	\$36.75
SOCIAL EVENTS	\$27,774.90	27%	\$27.15
CLUB FUNDING	\$20,416.00	20%	\$19.96
OPERATIONS	\$5,200.00	5%	\$5.08
PUBLICATIONS	\$10,286.10	10%	\$10.05
TOTAL	\$101,277.00	100%	\$99.00

PROJECT	TASK	ALLOCATION	TOTAL FUNDING	INTERNAL FUNDING	EXTERNAL FUNDING	NOTES
ASCIT.CALIFTECH	GEN	THE CALIFORNIA TECH	\$10,286.10	\$10,286.10	\$-	
ASCIT.BIGT	GEN	BIG T	\$58,311.00	\$-	\$58,311.00	BIG T ASSESSMENT
ASCIT.TOTEM	GEN	TOTEM	\$-	\$-	\$-	
ASCIT.LITTLET	GEN	LITTLE T	\$2,400.00	\$-	\$2,400.00	PUBLICATION REVENUE
ASCIT.GENERAL	OPS	GENERAL-OPS	\$2,500.00	\$2,500.00	\$-	
ASCIT.GENERAL	OPS	JAMROOM	\$2,578.59	\$1,000.00	\$1,578.59	SIF
ASCIT.GENERAL	OPS	SCREENING-ROOM	\$7,500.00	\$-	\$7,500.00	MHF
ASCIT.GENERAL	OPS	ATH	\$-	\$-	\$-	
ASCIT.GENERAL	OPS	BOC	\$-	\$-	\$-	
ASCIT.GENERAL	OPS	CRC	\$-	\$-	\$-	
ASCIT.GENERAL	OPS	IHC	\$2,217.98	\$1,000.00	\$1,217.98	SIF
ASCIT.GENERAL	OPS	ARC	\$7,000.00	\$7,000.00	\$-	
ASCIT.GENERAL	OPS	STAFF-AWARDS	\$700.00	\$700.00	\$-	
ASCIT.GENERAL	OPS	WEB SERVICES	\$1,000.00	\$1,000.00	\$-	
ASCIT.GENERAL	OPS	SUBSCRIPTIONS	\$-	\$-	\$-	
ASCIT.GENERAL	PROJ	SOC-CLOSET	\$1,101.83	\$-	\$1,101.83	SIF
ASCIT.GENERAL	PROJ	STUDY-ROOMS	\$-	\$-	\$-	
ASCIT.GENERAL	PROJ	PRINTING ROOM	\$5,000.00	\$-	\$5,000.00	MHF
ASCIT.GENERAL	SOC	ASCIT-FORMAL	\$75,000.00	\$20,000.00	\$55,000.00	TICKET SALES + SURPLUS + MHF
ASCIT.GENERAL	SOC	TECHSTOCK	\$40,000.00	\$-	\$40,000.00	SURPLUS + MHF + GSC
ASCIT.GENERAL	SOC	MIDNIGHT-DONUTS	\$4,500.00	\$4,500.00	\$-	
ASCIT.GENERAL	SOC	CAMPUS-EVENTS	\$9,454.90	\$3,274.90	\$6,180.00	ENDOWMENT
ASCIT.GENERAL	SOC	INTERHOUSE	\$9,800.00	\$9,800.00	\$-	
ASCIT.GENERAL	SOC	ALT-INTERHOUSE	\$1,800.00	\$1,800.00	\$-	
ASCIT.GENERAL	SOC	SENIOR-BOXES	\$1,000.00	\$1,000.00	\$-	
ASCIT.GENERAL	SOC	CROSS-HOUSE-EVENTS	\$7,200.00	\$7,200.00	\$-	
ASCIT.GENERAL	SOC	DITCH-DAY	\$9,800.00	\$9,800.00	\$-	
ASCIT.GENERAL	CLUB	CLUB/EVENT-FUNDING	\$42,500.00	\$20,416.00	\$22,084.00	SURPLUS
ASCIT.GENERAL	REVENUE	SURPLUS	\$(62,539.24)	\$-	\$(62,539.24)	
ASCIT.GENERAL	REVENUE	MEMBERSHIP DUES	\$(101,277.00)	\$(101,277.00)	\$-	
ASCIT.GENERAL	REVENUE	BIG T ASSESSMENT	\$(58,311.00)	\$-	\$(58,311.00)	
ASCIT.GENERAL	REVENUE	ENDOWMENT PAYOUT	\$(6,180.00)	\$-	\$(6,180.00)	
ASCIT.GENERAL	REVENUE	MOORE-HUFSTEDLER FUND	\$(45,000.00)	\$-	\$(45,000.00)	
ASCIT.GENERAL	REVENUE	SIF	\$(3,867.50)	\$-	\$(3,867.50)	
ASCIT.GENERAL	REVENUE	ASCIT FORMAL TICKETS	\$(22,500.00)	\$-	\$(22,500.00)	
ASCIT.GENERAL	REVENUE	GSC	\$(10,000.00)	\$-	\$(10,000.00)	
ASCIT.GENERAL	REVENUE	PUBLICATION REVENUE	\$(2,400.00)	\$-	\$(2,400.00)	
PROJECTED SURPLUS			\$(10,424.34)			

this space intentionally left blank <3

If anyone has any questions please fill out the financial feedback form below:



Introducing...

#3

The California Tech
CalGuesser

Every issue we'll show you a different location on campus.
 Find the place and find the QR code hidden there to sign the log book
 and **win a fabulous prize!!!!**

("On campus" is defined by the bounds of the map on caltech.edu/map/campus.
 The QR code will be hidden somewhere within the pictured area.)



**Last
 week's
 winners!**
 >>>

CalGuesser #2 – October 31, 2023

Congrats, you found it!!!

Leave your name/pseudonym, year/department, and date found!

Carlos Ayala, Astro2024, Halloween 2023

Thomas Cleveland, Math '25, Halloween 2023

Tiba Hamza, ChE24, Venerable, 11/1/2023

Ishita Mathur, CNS '26, 11/2/2023!!!!
 Shrujana Kunnam, CNS '26

**Class Spotlight:
 Where Engineering Meets Biology**

**Bi 1 b. Biomechanics of
 Organismal Design.**
 9 units (3-0-6); third term.

Skye Ruedas
 Academics

At Caltech, a distinctive biology course introduces a new way students approach the life sciences. "The Biomechanics of Organismal Design," taught by Professor Michael Dickinson, merges the concrete principles of physics with the dynamic patterns of biology. This integration offers a new perspective to students, particularly appealing to those with interests in mechanical engineering.

The course tackles intriguing questions like how penguins swim, why maple seeds spin to the ground, and the comparative strength of spider silk versus steel. While the course focuses on the organismal level, it also incorporates molecular, cellular, and tissue-level scales, painting a comprehensive picture of biological mechanics.

Bram Schork (Fleming '26), a mechanical engineering student who completed the course, shared his experiences, noting the unique approach of the class. "It was a fun blend of physics and biology," Schork said. He highlighted the mechanical framework used by Professor Dickinson, which allowed students to tap into their existing knowledge of physics to decode biological phenomena. A standout example from the course was the analysis of a cricket's jump, approached not through biological lenses but through mechanical diagrams. "We broke down the cricket into an energy source and a spring, allowing us to use our well known physics skills to start solving biological problems" Schork explained, emphasizing the application of familiar physics skills to biological questions.

What is different about this course is its ability to offer a 'change of pace,' in Schork's words, providing students an opportunity to apply their skills in physics and engineering within biology. For students like Schork and his peers, this course has been a gateway to appreciating the complexities of biological systems through the more familiar principles of mechanics.

The California Tech

EDITOR-IN-CHIEF
 Michael Gutierrez

STAFF WRITERS
 Lilia Arrizabalga
 Skye Ruedas
 Elizabeth Field
 Alicia Zhang

LAYOUT
 Alanna Yelland

PUZZLE MASTERS
 Enric Adillon
 Madeline Hicks

BUSINESS MANAGER
 Jonathan Booker

ADVISOR
 Richard Kipling

The California Tech aims to publish biweekly except during vacation and examination periods by the Associated Students of the California Institute of Technology, Inc. The opinions expressed herein are strictly those of the authors and advertisers. Letters and submissions are welcome; email submissions to tech@caltech.edu, or submit them on our Discord server (<https://discord.gg/Zaah8749s2>). The editors reserve the right to edit and abridge all submissions for any reason. All written work remains property of its author. The advertising deadline is 12 pm on Friday; all advertising should be submitted electronically or as camera ready art, but The Tech can also do simple typesetting and arrangement. All advertising inquiries should be directed to the business manager at tech@caltech.edu.

Can you spot the amogus (🐱) in this issue?

**WRITERS & COLUMNISTS
 WANTED!**

visit tech.caltech.edu/write
 to see open positions

All contributors are paid! Submit pieces at tech.caltech.edu/submit, email tech@caltech.edu, or join our Discord server using the QR code:



oh god how did i
 get here i am not
 good at computer



are you good at computer?
 join the tech!



**The Bill Gross
 Prize for Entrepreneurship**

Caltech

**Compete for \$100,000 in funding
 for your business idea!**

- Learn from experienced entrepreneurs and present your business plan.
- Winning teams will split \$100K, internships, and matching funds from Idealab/Caltech.

Drop-in info session and lunch:

November 16, 12-2 pm | Caltech Innovation Center

Submission deadline: January 8, 2024.

Learn more and apply:
innovation.caltech.edu/entrepreneurship/bill-gross-prize
 or scan the QR code:

