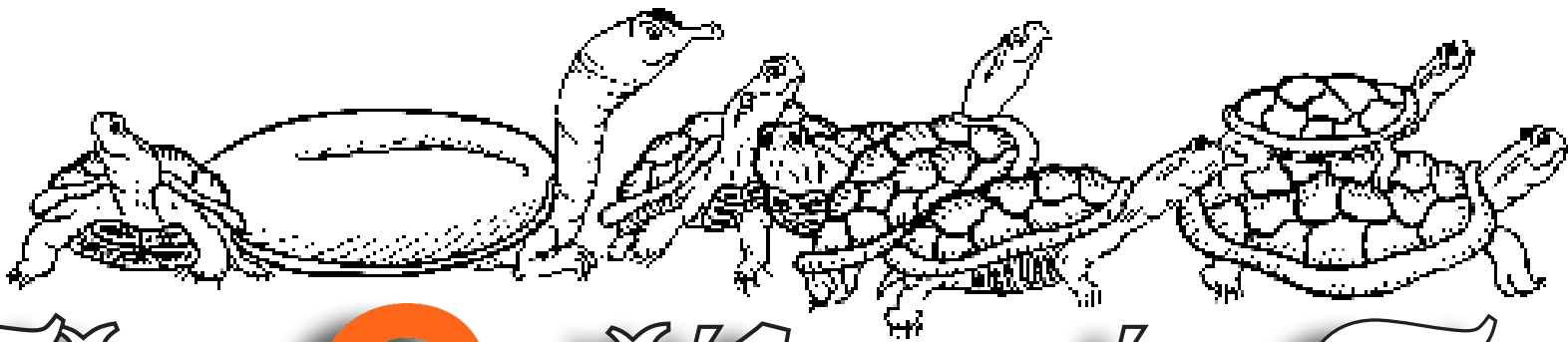




The California Tech

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PASADENA, CALIFORNIA

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The Importance of Earnest Theater Criticism: TACIT’s Wild(ean) Triumph

Damian R. Wilson
News

Oscar Wilde subtitled *The Importance of Being Earnest* “A Trivial Comedy for Serious People,” but the Theater Arts at Caltech (TACIT) cast made clear in their recent production that the inverse is equally applicable: a serious comedy for people who can appreciate some well-placed triviality. Under the constraints of a shoe-string budget and the time pressures of the term (with just a month between the first read and the premiere!), the ensemble delivered a spirited, genuinely funny performance that embraced both Wilde’s wit and its own Caltech quirks.

As Algernon Moncrieff, Max Gorbachev anchored the play with playful nonchalance. He delivered Algy’s cruelty and blithe selfishness (“My dear boy, I love hearing my relations abused...”) with a charm that skirted the edge of sincerity, exactly as the role demands. Opposite him, Solvin Sigurdson’s John Worthing found the right blend of exasperation and earnestness, shining especially in the scenes where Jack’s façade begins to unravel. Together, Gorbachev and Sigurdson captured the hilarious futility of two men who insist on being named Ernest while being anything but.

Sarah Madden’s Cecily Cardew and Mahak Mathur’s Gwendolen Fairfax formed one of the evening’s comic high points. Their duet of polite hostility—trauma-bonding over the elaborate deceptions of their suitors—was sharply timed (and dressed!). Each played up the absurdity of the “girlish dream” to marry on such a bizarre and singular predicate, with Cecily’s ingenuous romanticism and Gwendolen’s iconic pretension clashing and harmonizing in equal measure. Their reconciliation, upon their lovers’ less-than-Ernest revelations, landed with genuine warmth.

As Augusta Bracknell, Tiffany Kim strode through each scene with the hauteur of a woman who has never once doubted her authority. Her interrogation sequences were especially memorable: treating smoking as a viable occupation, extolling the beauty of ignorance (“like a delicate exotic fruit—touch it and the bloom is gone”), and recoiling with delightful horror at the notion of “marrying into



Cast of *Earnest*, from left to right: Max Gorbachev, Tiffany Kim, Jin Park, Sarah Madden, Solvin Sigurdson, Mahak Mathur, Ankan Mukherjee, Joyce Kim, and Marcin Kurowski. (Photo: Charity Hume)

a cloak-room.” Kim’s Bracknell hit the precise balance between satire and self-seriousness that keeps the role evergreen.

Ankan Mukherjee, as Rev. Frederick Chasuble, leaned into the character’s affable awkwardness. His gentle conflict between clerical duty and budding romantic feelings for Miss Prism was played with a charming sincerity, offering softer comic beats that complemented the show’s verbal pyrotechnics. Opposite him, Joyce Kim’s Laetitia Prism brought a well-modulated mix of propriety and longing; her precise physicality made every scene with Chasuble quietly delightful.

Rounding out the cast were Marcin Kurowski as Lane and Jin Park as Merriman: the indispensable straight men to the chaos of the upper classes. Both actors delivered crisp, understated performances, grounding the production with wry facial expressions and perfectly timed silences. Their dry reactions sharpened the absurdity around them, integral as they were to the show’s farcical texture.

To be sure, the text’s funniest sharpest comic threads—Algy’s scathing impishness (“Divorces are made in Heaven”), Jack’s exasperation at Cecily’s imaginings, Lady Bracknell’s sweeping pronouncements, and the exquisitely trivial crises of names and manners—were woven with a precision that would have pleased Wilde himself. Sigurdson, especially, stood out: “Some aunts are tall, some aunts are not tall” struck

its mark, as did Jack’s horrified confession of being “found in a handbag”—or “at any rate bred” in one.

Some actors might have benefitted from more time to polish accents or snap certain cues more tightly, but such imperfections never overshadowed the charm of the production. If anything, they only heightened the Wildean energy: earnest, unpretentious, and joyfully committed.

The set—assembled with Caltech ingenuity on minimal funds—was impressively conceived, offering warm Victorian interiors with just enough ornament to suggest Wilde’s world without (Bun)burying itself in excess. The costumes, too, provided moments of visual humor, with Algernon’s Beetlejuice-esque look underscoring his glibly demonic aura. As Gorbachev’s character quips, “If I am occasionally a little over-dressed, I make up for it by being always immensely over-educated”—a line that felt right at home on the Caltech stage.

TACIT’s *The Importance of Being Earnest* may not have been a flawless period piece, but it fully succeeded where it mattered: in revealing Wilde’s comedy to be anything but trivial. The cast embraced the silliness, the sharpness, and the quiet sincerity beneath the play’s many layers of artifice. The result was an evening as clever as it was heartfelt—an earnest celebration of theatrical joy, Caltech-style.

2025 Pasadena Coffee Passport (To be Continued ...)

Victoria Davis
Feature

These stores will be checked out during winter. See our first issue of Winter Term!



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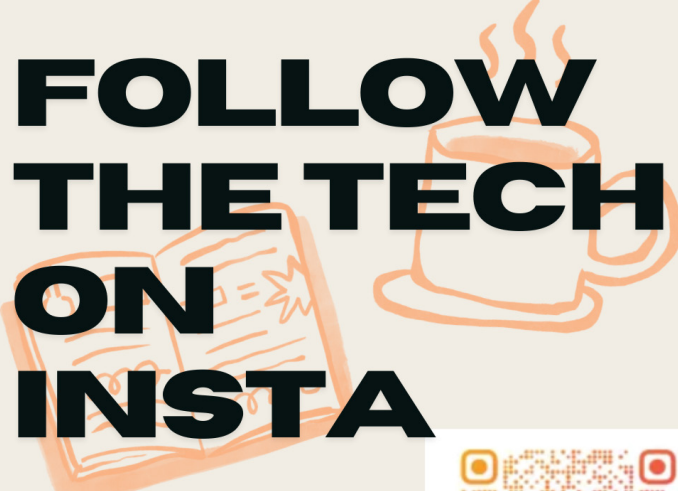
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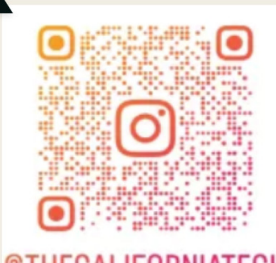
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Meet Terry Tumey, Caltech’s New Athletic Director

Emily Yu
The Inside World

From the gridiron to the front office, Terrance “Terry” Tumey’s career spans roles as a college football player and coach, an athletic director in Division I, II, and III institutions, and an executive at the San Francisco 49ers. He earned a B.A. in political science from UCLA, where he played and later coached football, and completed his MBA at UCLA’s Anderson School of Management. Last month, Tumey joined Caltech as the director of Athletics, Recreation and Instruction (ARI).

In our conversation from November 4, Tumey reflects on the experiences that shaped his leadership philosophy and highlights impactful moments from a career in athletics. He also tells stories that extend beyond biography, illuminating the values he brings to Caltech. His first brush with Caltech, as it turns out, dates to 1984 and an iconic prank in the Institute’s history.

Is there anything that drew you to Caltech specifically?

Without question, the uniqueness of the Institute. It may be small in size and population, but it is very complex. I’ve never been anywhere like this in my life, so it’s incredible. I don’t think anything compares to Caltech in terms of its global impact. What really drew me is the insatiable intellectual curiosity. That’s attractive, you want to be around it, and I hope it can also spread to what we do athletically: how we move forward, how we provide recreational experiences, and how we approach instruction—all the different pieces of the puzzle. The whole experience here is about discovery. Physical discovery is just as important, so you don’t have to be an athlete per se to enjoy the deeper benefits. Being a steward of that is a special opportunity, to have an effect and an impact on so many people who are remarkable in their own right.

In your first week here, have any early interactions been especially informative?

It’s interesting, it depends on the time of day. In the mornings, I’ve had a chance to see student-athletes at work and how they progress through. I also have a lot of meetings at the Red Door, which gives me a better sense of the wider community because I see a host of different people. Midday and into the evenings, when I’m down [at the athletic center] quite a bit, I see our external community: staff, faculty members, and partners from JPL who work out there. I meet a wide range of people.

I really believe the convergence of all these groups will shape how I formulate a system of thought. I just haven’t been able to put it all together in a week. You’re meeting amazing people. I mean, it’s just truly incredible. On my first or second day, I met a woman—I believe her name was Juliana—who was the wife of a former acting president of Caltech, who was a physicist on the Manhattan Project. Moments like that don’t usually happen. Last night, Bill Gates spoke on campus. I wasn’t able to attend, but having leaders like that come here shows what a special place

this is. Those are just two small examples from one week. At some universities, that would be a year’s worth of highlights; here, it’s a couple of days at Caltech. That tells you how special this place is.

Did you have conversations with faculty or students before deciding to come to Caltech? What, if anything, resonated with you?

I did, I was blessed enough to go to graduate school with one of your adjunct faculty members here, Peter McNiff. At the end of his course, he has a summer barbecue, and he invited me to that gathering. He’s a friend. I said I would love to come and meet new people. At the event I met a ton of students from everywhere, probably around 30, and I also met faculty. I remember meeting Mike Vicic in particular; he stood out as a wonderful person. That gathering gave me a peek into what Caltech’s community is like, and it was pretty special. It was my first entrée into understanding the Caltech community. I can guarantee I will be learning for a long time because it is so dynamic and always changing, but that was my first insight.

Believe it or not, my first personal introduction to Caltech was when I was a freshman on the UCLA team at the Rose Bowl, the year Caltech students took over the [scoreboard](#). I remember seeing it and thinking, “whoa!” It was amazing. They kept the score correct but changed the team names to Caltech and MIT, with Caltech being in the lead—it was perfect.

Caltech is unique, with students facing an infamous intense workload. It’s early, but how might that reality shape the way you lead the department? How have you balanced academics and athletics at other institutions?

It helps galvanize what the importance of athletics should be. I think we are often preoccupied with results, particularly in athletics—“Did you win this game?” I think that’s important, don’t get me wrong, but what’s even more important to me is the process. The goal is to create an ecosystem that serves students, and also staff, faculty, and the broader community. I want to be a nurturer in that way. If I define success, it would be having a positive impact there.

I do feel as though the balance will always require vigilance and sensitivity, especially for all the students we serve, not just student-athletes. It is important to recognize that an athletic director is not the director of 300 athletes; you are the athletic director of the Institute. When I talk about experiences, I mean every community member here and how we can make their time better and more fruitful.

How would you characterize your leadership style?

I know it may sound trite, but I am a very collaborative person. A big part of leading well is listening. As I’ve said, I’m still learning. There’s so much that I don’t know here, so it’s going to be very important that I listen and understand the community I am trying to serve. It is hard to serve people unless you listen to them. I’m really trying

to be intentional about understanding this community, so I am very open to feedback from students and from anyone, as long as it is constructive and comes from a place of making us better. If it comes from that place, we should all be open to it. That’s the leadership I find most impactful. It is about serving. This position is about serving the community, and that includes our alumni, who want to be proud of the Institute. So, service leadership and collaboration are what I’m all about.

You were at UCLA in several capacities—player, student, then coach—and later served as an athletics administrator across all NCAA divisions. How did those experiences shape your view of athletics in higher education?

I’m from the Midwest, and coming to the West and really developing during my undergraduate years showed me what the academic experience can be—and should be—for a student. It was my first step in understanding that. [As an athletic director,] I understood how the stewardship and the partnership of the institute or the university truly are paramount. You really have to have a great partnership and understanding and keep the students at the center of what you’re doing.

Given how formative the college years can be, who at UCLA influenced you most, and what lesson has stayed with you?

The beauty of being a student-athlete is you’re able to get those lessons from a host of different areas. My coach (Terry Donahue), of course, was a tremendous part of that, shaping my introduction to the university and modeling stewardship. There’s a lot of what I consider the “soft curriculum” in athletics—the things you use in daily life: resilience, learning how to come back, work ethic, teamwork. I learned that there. At the same time, the partnership with academics was amazing. There were faculty members I truly appreciated. One I adored is Valerie Smith, now the president of Swarthmore; she was incredible. The vice chancellor for student affairs (Winston Doby) was also amazing. You can go on and on. What it really boils down to is that, in a student community, it’s a multitude of people. It’s rarely one person. It’s the community that stewards that experience and has that impact. If you’re lucky, you’ll have five or six such people.

Do you have a favourite memory from your time coaching—either with the Denver Broncos or at UCLA?

I do have a lot of great memories from coaching, but believe it or not, they weren’t on the field of play. They were at, like, holiday parties, or where you got to meet the families. One thing that people don’t always recognize is athletes, a lot of times, have to make a ton of sacrifices. During the holidays—Thanksgiving or whatever you celebrate—many times you’re not able to be with your loved ones and your family. I can’t tell you how many Christmases I’ve missed away from my family because of preparing or participating in a game. Those moments really galva-



Terry Tumey, our new director of Athletics, Recreation, and Instruction (ARI) as of October 28. (Photo: Claremont McKenna College)

nize relationships you have with the team. You share so much time with these people, they do become an extended family. That’s what I remember most—whether it’s undergrad or professional. You spend so much time together, and you have such respect for the people you’re with, that you really do see them as family members. I remember that probably more than anything else. The games kind of fade after a while; the relationships don’t.

Do you have a moment from your UCLA playing career that stands out?

We lost to Stanford at the Rose Bowl but had a chance late in the game. I was a nose guard, and with about a minute left my coach called something we’d never practiced: swipe at the ball as it moved to disrupt the snap. He said with total confidence, “Terry, I know you can do this.” I did; the ball kind of went through the center’s legs, then our safety caught it and started running. It was so illegal to disrupt the snap, so it didn’t count, but it was the closest we came to turning the game. I’ve had other cool moments—a sack and fumble to preserve a win over the University of Miami—but for some reason that play in a losing effort sticks with me.

More importantly, you remember the celebrations. You’ll hear this from athletes all the time, particularly football players or people who are in a team. After they retire, the thing they miss is the camaraderie of the team. More than anything else, they miss those relationships, those vibes. That’s why when I heard of the house system, I kind of immediately thought, oh, that’s their team. You know how important your house is? It’s that closeness and bond.

This past week I watched cross country, women’s and men’s basketball, volleyball, men’s soccer, and men’s and women’s tennis practice. Seeing all of that, you can see the same opportunities for camaraderie among Caltech students, though the pace here is even more demanding. The pace here is insane. It’s insane. You have a problem set, like, every day? I’m just appreciative of what our students do here. I’m still learning, but I’m very appreciative of this experience. After just one week, I believe any educator should spend a week at Caltech to understand and appreciate the excellence of this place. I’ve never seen anything like it in my life.

What would your walk-out song be, or what music got you ready to compete?

I tended to be pretty wired up, so I needed something to calm me down. I used to listen to jazz before playing because it

put me in the right space. It is a very mental game when you’re dealing with opponents. You can prepare yourself physically, but you have to be able to focus, and I needed something to kind of keep me in a linear fashion. I’ve always had a real soft spot for jazz because my father listened to it; being so far away from home, it resonated. And I loved Prince. My mom and dad thought it was insane; I was such a Prince person.

I also listened to a lot of rap. When I was in school, Public Enemy was huge, and Wu-Tang was big at the time, but before the game, I’d start focusing in. I would also listen to classical music—Handel. An alum I knew always thought it was a little odd and would ask, “Terry, what are you listening to?” I was able to take a class that gave me a real appreciation for classical music, which is what higher education is for, to open our eyes to different things.

Is there something the Caltech community might be surprised to learn about you, on or off the field—a fun fact or something people wouldn’t expect?

Wow, a fun fact. I’m not sure I’m that interesting, so that’s a tough one. I think I’ll leave that open, because I want to get to know people and have them discover it for themselves. Let’s have coffee or chat sometime, and we’ll figure it out together. I’ll learn about you, and you’ll learn about me. I plan to spend a lot of time around campus so I can be visible and part of the community. I want to be a partner in that sense. My hope is that ARI becomes a true partner in the Caltech experience for everyone here.

This interview has been edited for length and clarity.

Should You Play Chants of Senaar?

Clare Wu
News

When suggesting games to friends, I'll often get a response along the lines of "Oh, I'm not good at games." This statement can be a bit confusing in that it is so general. What does it mean to be "good at games?" There are definitely types of games one might not be good at, for example I suck at shooters, but I find it hard to believe that one can be bad at all games. I think it comes from a common misconception of video games among non-gamers that all video games are based around combat or some amount of physical skill surrounding reaction time and hand-eye coordination. Chants of Senaar is a counterexample to this idea.

Chants of Senaar is a puzzle game through and through. There is no combat. The only slight control skill needed is in a few stealth sections that are basically just interactive puzzles. It's a game that I would recommend, but with a few warnings.

The story centers around the tower that the player finds themselves waking up in. Each level of the tower contains a different society with a different language, culture, and people. The main character has no name or knowledge of where they are. You'll simply wake up and learn a new language. Many things are left unexplained and left to the player to understand. This has its pros and its cons. For the most part, it creates a very satisfying experience where one can feel quite clever. On the other hand, it can be frustrating if you get stuck and are led to brute force a puzzle as a result. A game has never made me feel more smart, but also so dumb.

Something admirable surrounding the gameplay is that English, or whatever language you select in the settings, is used only to explain how to play the game. It is never used as part of a puzzle or to tell the story. This means that by design the player should not need any outside knowledge besides a basic feel for language. However, it also means that it can be hard for a player to perfectly understand and solve the puzzles without brute forcing. This lack of straightforward explanation is the source of any confusion that comes from a puzzle. I'll admit that there were times where I had to look up a walkthrough because I was too frustrated, but in reading the walkthrough I could clearly see how the pieces set before me would've lined up if I had the correct idea (except for one incident).

It is undeniable that the puzzles are cleverly designed, but the necessity of that singular spark can be an issue. As the game progressed and the puzzles got harder, I got the feeling that developers also developed a bit of blindness to how a player would approach and solve their puzzles. This feeling only grew towards the end of the game and the complex but simple puzzles that give you the last language.

If you want my spoiler-free recommendation and experience, here it is. I spent around \$20 for the physical Switch cartridge, and it took me around 10 hours to get the true ending. This fails the commonly passed around measure of value: \$1 per hour of gameplay, but I

would say it's worth it if you can find it on sale (which if you buy it on Steam is extremely likely). Chants of Senaar is a beautiful game with a unique concept. I can't think of another game that is remotely similar.

However, if you want my spoiler-full experience, keep reading.

The game starts with the devotees, sadly my favorite level. You are initially presented with a locked door and a lever. The door has a symbol next to it, the lever has a symbol at the top and one at the bottom. When activated, the door opens. The meaning behind the lever symbols immediately becomes clear. Then we meet our first inhabitant of this world, waving their arm signaling you to follow them as you make your way through a series of simple lever puzzles. As they point to themselves and to you, it is easy to connect which symbols represent what. Once you're done with this short series of puzzles, you're given the first page of the journal. The pictures are clear in what they depict: a greeting, pointing at "you", and pointing at "me." A simple but effective puzzle.

the bards. After the bards you'll find your way to the alchemists. After the alchemists you can finally reach the top where you find the enslaved anchorites. Finally, you will confront the AI Exile that has utilized the lack of communication and differences in language between groups to enforce this divided status quo.

The comparison among languages is precisely where the details of Chants of Senaar shine. In particular, you can see that the language used will reflect each culture's values and build in complexity on top of the previous.

The devotees have the most basic language. Plural is conveyed by the repetition of symbols ("man man" to mean "men" for example) and the symbols are meant to be more logographic. Nouns for people will share an L shaped symbol (as seen in "you" and "me"). Symbols for buildings share a box-like structure. It is the easiest to decipher and that's by design.

The warriors introduce the concept of negatives and an "-s" like symbol to indicate plurality. We also see a difference in

with no map provided. Without a walkthrough, I probably would've wandered in circles, not found the compass I needed, gave up, and never touched the game again. A really beautiful level though.

The alchemists pull back on grammar complexity, being more simple than the bards, but introduces complexity in learning about their number system. This also led me to my least favorite puzzle of the game. Each number is based around a singular line in the middle and surrounding that line is essentially four quadrants. Each digit then has a particular shape associated with it as given by the number glyphs that you translate. If that digit is in the top left quadrant, it represents thousands. If it's in the top right quadrant, hundreds. Bottom left, tens. Bottom right, ones. However, this idea is simply not conveyed very well. From what I understand, you're supposed to get this from the strange almost calculator-like machine in a lab. But this machine has two lines of input which can really confuse things. Even in walkthroughs, how you're supposed to figure this system out

to you. It feels a little like a cop-out. Like they wanted to add another language to advertise a larger number of glyphs, but they didn't have the time or energy to actually make another set of environmental puzzles surrounding it. The only cool thing they add is that they're glyphs can be stacked on top of each other to create new meanings.

While the differences are fascinating, I find the similarities more meaningful. Every language has a glyph for the following words: "me", "you", "seek", and "help." Across language people will always be "seeking" something and will always have the concept of "helping", indicating that it is simply human nature to do so. Most will also have a glyph for "death" or "make." The message of that is clear: death is an inevitability, but so is creation. While their languages are different at their core, the groups are all people.

The story of the tower is one of how language can be used to divide us. The anchorites that founded the tower sit at the top, plugged into VR headsets and controlled by Exile. Without them connecting the other groups, the groups remain isolated from each other. It is only when you, the main character, take the time to translate between the groups and facilitate communication that they open their gates and help each other. Once you have reached the top and discovered Exile's authoritarian control, you can move towards the true ending and shut it down. To do so, you have to travel back through the tower and free anchorites from Exile's control and they will talk to the various groups. In the end, you can eventually free the whole tower from Exile and see people from all of the groups all at the top, freely mingling.

The lesson is ultimately that even if we can't understand each other, we must still make the effort to do so because when we are divided it allows higher powers to take advantage of our division.



It is evident that there are two ways to get clues on the meaning of words: the environment and social interactions. Perhaps my favorite way that the game builds knowledge of the first society is through a card game. Having just learned the symbols for man, devotees, warriors, and god from a set of ruined murals, we find some warriors guarding a door and keeping some devotees out. Near this locked gate is a card game. The cards are shuffled and you have to choose one randomly. Your opponent then chooses one and whoever has a higher rank card wins a rock. Once your side fills with rocks, you win. Where the world building happens is in the heart of the cards. Devotee outranks Man. Warrior outranks Devotee. God outranks Warrior. The hierarchy is defined in one game. You then use that knowledge of hierarchy later to open a locked door. All that without a singular word of English.

Another thing to note from this interaction is that warriors have a completely different language and that the different groups cannot understand each other. This becomes clear when you access the different terminals scattered through the map and have to translate between the levels of the tower. By naturally exploring, motivated by the urge to fill your notebook, you eventually make your way up to the warriors' level. After the warriors' level you'll reach

how the devotees and warriors view the world. While devotees clearly see themselves as pilgrims, warriors are influenced by the "chosen" bards above and view devotees as "impure." This explains why they have refused to open the door for them. Additionally, they place a large emphasis on labor, honor, and duty. We can see this in how the fortress they occupy has groups marching in formation through the halls and those that aren't marching are moving things. Even the shape language of their symbols seems to communicate their rigid and militaristic view as it is filled with straight lines and sharp angles.

The bards have a different sentence structure compared to all the other languages. Instead of subject-verb-object, the bards will conjugate to object-subject-verb. Additionally, their symbols are connected to each other when written somewhat similar to how letters in Arabic are connected. Among the first new symbols you'll encounter are "beauty", "music", and "comedy." They have a more rounded language that seems to fit their carefree attitude. You'll also notice that they really like the word "idiot", often using it to describe the other groups in the tower. The bards are also where I first looked up a walkthrough for a puzzle. This came courtesy of a very complicated series of tunnels that you must navigate

on your own is not explained. So while I admire this unique number system and can see how it reflects the alchemists pursuit of science, it frustrates me and represents the pitfalls of the level design. Still, the alchemists have what I consider the best designed language. The glyphs are much more complicated and harder to write than the previous languages, but they also share elements that create groups among them. For example, verbs share a similar arc. Elements, yes like those in the periodic table, share a triangle. The glyph for brother kinda looks like a person putting their arm around another person. Things like that make it the most detailed language.

Finally, the anchorites. This language was the easiest, fastest, and most frustrating to complete. This is because all of the glyphs you need to know are given to you through a translation puzzle. However, the mechanics to this puzzle (matching up rings of glyphs of different languages) are, obviously, never explained. So you're supposed to look at it and just know to match up glyphs of the same meaning (keep in mind that you still don't know the meaning of some of them). Maybe I'm just dumb, but since I couldn't figure that out immediately I looked at a walkthrough and saved myself some time. Once you know how the puzzle works, the anchorites' language is basically just given



The Enduring Power of Gold

Emily Yu
Culture

Gold has captivated humanity for millennia. In 1848, the discovery of gold at Sutter’s Mill in the Sierra Nevada foothills initiated one of the largest migrations in U.S. history and left a lasting impact on the environment. In artistic expression, gold also plays an important role. Beyond mines and the economy, what different stories does gold tell when encountered in art?

When Associate Curator Maggie Bell and Assistant Curator Lakshika Senarath Gamage began combing through the gold objects of the Norton Simon Museum, they found that gold carried stories of power, devotion, and adornment. These three themes are the galleries that compose “Gold: Enduring Power, Sacred Craft,” on view through Feb. 16, 2026.

The exhibition features approximately 60 works from Asia, Europe, North Africa, and North America, spanning from around 1000 BCE to the 20th century. Together, these objects reveal the circulation of gold and the many ways artists transformed it.

The first gallery, “Power,” displays works that use gold to signal authority, emphasizing the wealth and prestige of their patrons. In some cases, that authority stemmed from direct control over gold itself, from rivers and mines across the world. California’s own 19th-century gold extraction, and its lasting environmental and social impact, appear through photographs by Ansel Adams and Edward Weston.

A highlight is Rembrandt’s 1639 etching, “Jan Uytenbogaert, The Goldweigher.” Uytenbogaert was the receiver general of Holland, or chief tax collector. He is depicted recording payments in a ledger, among weighing scales and bags of gold. A kneeling servant is accepting one of the bags, while two people in the background are about to enter carrying more bags of gold. Rembrandt worked during the Dutch Golden Age, a period of extraordinary wealth and economic influence. Extensive global trade funneled riches into Dutch cities, where gold and other luxury goods became markers of status and power. His etching displays gold’s authority, while prompting viewers to question its significance and value.

“Devotion” brings together European panel paintings and South Asian gilt sculptures, focusing on sacred works that

rely on gold. Because it can be shaped without corroding, gold was ideal for religious images intended to endure over time. For a painting that is almost 600 years old, Giovanni di Paolo’s “Branchini Madonna” has survived remarkably well.

In 1427, di Paolo painted an altarpiece for the Branchini family chapel in Siena’s church of San Domenico, one of the most important commissions of his career. “Branchini Madonna” shows the Virgin Mary holding the infant Jesus. Gold covers the background and halos, stamped and tooled and punctuated by glass gems in Mary’s crown so that, in candlelight, the image would have created a visual sense of divine light. Inscriptions include the opening lines of the Ave Maria and, within Mary’s halo, “I painted this for you. Virgin, Protect this man.”

According to Yvonne Szafran, senior conservator and head of paintings conservation at the J. Paul Getty Museum, “[di Paolo] used gold in creative ways. There was a technique at the time called sgraffito that involved painting opaque paint on top of the gold, and then scratching through the paint to the golden layer below to make patterns. And this was especially useful for depicting brocaded fabrics. In the Virgin’s dress we see it, but we also see sort of clever approaches to it all through the painting.”

“Adornment” concludes the exhibition with Roman jewelry and other ornaments that highlight artistic skill, including bronze Egyptian cats that may have served as protective statuettes in the 7th century BCE.

The curators’ approach is both material and metaphorical. “We systematically went through all the objects that had gold as a medium,” Bell stated. “At the same time, we started thinking about the way gold as a metal interacted with other medium and also what gold means symbolically, even to representations of gold in thread or in paint. There are so many ways to approach this subject.” For Senarath Gamage, the project prompted “a very deep appreciation for those artists who used gold in magical ways we would never even have imagined.”

Presented on the museum’s 50th anniversary, a milestone traditionally associated with this metal, “Gold: Enduring Power, Sacred Craft” invites visitors to look beyond its economic value. From a Nepalese deity to a Flemish tapestry, the exhibition shows how gold transforms and endures, linking distant places and devotional worlds.



Giovanni di Paolo, Branchini Madonna, 1427. (Image: The Norton Simon Foundation)

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

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

I Feel WICKED — Act I

Camilla Fezzi
Inner Voices

I Don't Know How to Explain What Wicked Did to Me

I'm sitting here three days later, and I still can't get it out of my head. The movie, I mean. Wicked. I went because everyone was going and I needed a break from studying for finals and maybe because I was curious about all the hype but I wasn't expecting... this. I wasn't expecting to leave the theater feeling like someone had reached into my chest and rearranged everything.

I can't quite explain it properly. It's like when you're looking at yourself in a mirror and suddenly see something you've never noticed before—some truth about your face, your body, your soul that was always there but you had learned not to see. Except the mirror was a movie about a green girl who can do magic, and I was sitting in a theater that smelled like stale popcorn, with my knees pressed against the seat in front of me, trying not to sob loud enough for strangers to hear.

The thing is, I've always been the kind of person who doesn't really believe in herself. Not in that fake modest way where you fish for compliments. I mean, genuinely, bone-deep, convinced that everyone else got some manual for how to be a person, and I was absent that day. That everyone else knows how to exist without constantly apologizing for it.

(God, even writing that sounds dramatic. But it's true, it hurts.)

So when Elphaba showed up on screen—Cynthia Erivo with her perfect voice and her green skin and her way of holding herself like she's apologizing for existing, like she's trying to take up less space even though she's literally green and can't hide—something in my chest just... cracked open. Like a fault line I didn't know was there.



That Quote Everyone's Fighting About

Okay, so there's this moment. Elphaba tells Fiero she wishes she could be beautiful for him, and he says, "It's not lying, it's looking at things another way." And the entire internet is having feelings about it.

I saw this Reddit thread where someone called it backhanded, and honestly? I felt that. Like, just tell her she's beautiful, you know? How hard is that? But then I kept thinking about it during the drive home (and the next day, and the day after that), and maybe that's missing the point.

Maybe that's not right but — what if he's not being cruel? What if he's trying to say some-

thing bigger about how beauty isn't about the outside at all?

(I spent way too much time on that Reddit thread. People have OPINIONS.)

Because here's what I think he means: Beauty isn't skin-deep, it's not about being blonde or having perfect skin or fitting into some mold. It's about who you are inside. It's about your mind, your courage, your heart. Elphaba is asking him to see her differently, but he says he already sees something deeper—something that matters more.

And here's the thing that makes this hurt in the best way: later, Fiero becomes the Scarecrow. His beautiful face, his charm, his whole physical presence—gone. Transformed into straw and fabric. And Elphaba tells him the same thing back: "It's not lying, it's looking at things another way."

Because now he understands. He's not beautiful on the outside anymore, either. But that was never what mattered. What made him worth loving wasn't his perfect hair or his smile. It was him. The person inside.

The circle of that just... god. It destroys me.

I've spent so much of my life obsessing over the outside. Am I pretty enough, thin enough, put-together enough. Asking people to validate my appearance because I thought that's where value lived. But what if I've been asking the wrong question this entire time?

What if beauty—real beauty—is about who you are when everything external is stripped away? What if it's about your thoughts, your integrity, your capacity to love and be loved? What if the thing that makes us beautiful is the thing that can never be taken from us, even when we're turned into scarecrows?

Fiero knew this when he looked at Elphaba. And eventually, when his own exterior is destroyed, he learns it about himself too. That's not backhanded. That's profound.

I don't know. Maybe I'm reading too much into it. But sitting there in the dark, this felt like the most important thing in the whole movie.

The Part Where I Started Crying

I need to tell you something. I never cry in movies. Like, never. I can watch the saddest thing and stay completely dry-eyed because some part of me is always aware

that it's fiction, that it's acting, that it's not real.

But during this scene — Elphaba wishing she could be beautiful, Fiero saying it's looking at things another way — I started crying. Not pretty tears. Ugly crying. The kind where

you're trying to be quiet but your breathing gets weird, and the person next to you definitely notices.

Because all I could think about was the mirror. My mirror. The one in my bathroom that I stand in front of every morning, cataloging everything wrong. Too much here, not enough there, never never never right. The scale that hasn't shown the right number in years because I don't even know what the right number is anymore. Maybe there is no right number. Maybe I've been trying to disappear into a number that doesn't exist.

The anorexia. Let's just say it. Let's make it real. The eating disorder I don't talk about because naming it means admitting I'm broken in a way I can't fix with willpower or discipline or one more skipped meal.

I've spent years trying to make myself smaller. Literally smaller. Because somewhere along the way I learned that taking up less space meant being more acceptable. That if I could just be thin enough, controlled enough, perfect enough on the outside, maybe someone would finally see me. Maybe I would finally deserve to be seen.

But the irony is brutal. The irony kills me every single day. The more I disappeared physically, the more invisible I became. I thought shrinking myself would make me beautiful, would make me worthy of being looked at, would make me someone people choose. Instead I just... faded. Into background noise. Into nothing.

And sitting there watching Elphaba ask to be seen as beautiful, all I could feel was every morning I've skipped breakfast. Every meal I've calculated down to the calorie. Every time I've looked at my body and felt nothing but disgust, failure, wrongness. Every moment I've believed that my worth lived in my appearance, in the number on the scale, in whether I could fit into smaller and smaller spaces until maybe I wouldn't exist at all and that would be easier than this.

The fear of not being seen. That's what it's always been about, isn't it? The terror that I could disappear completely and no one would notice. That I'm already disappearing and no one cares.

I starved myself trying to become visible. Trying to become the kind of person people notice, people love, people choose. I made myself so hungry—for food, for validation, for proof that I matter—that I forgot what it feels like to be full. But Fiero is telling Elphaba—and maybe the universe was screaming at me through this movie—that we've been looking at the wrong thing entirely.

Beauty isn't in the body. It's not in the measurements or the weight or the perfect exterior I've been torturing myself to achieve. It's in the mind, the heart, the person underneath all of it. The thing that stays when everything else is stripped away.

I sat there in that dark theater, tears running down my face and I couldn't stop them, didn't want to stop them, and thought: I've been trying to be beautiful in all the wrong ways. I've been asking to be seen while systematically erasing myself. I've been measuring my worth by the one metric that will never, ever be enough be-



cause it was designed to make me feel like I'm failing. It was always designed to make me fail.

When Elphaba later tells Fiero the same thing—when he's the Scarecrow and his beauty is gone, when all that's left is straw and fabric and the person he actually is—I understood it differently. I understood it in my body, not just my brain. Because when you lose the exterior, when the body fails you or changes you or is taken from you, all that's left is the truth of who you are inside. And that has to be enough. It has to be.

And maybe that's what I need to learn. Maybe recovery isn't about finding the right weight or the right body or the right way to be beautiful by someone else's definition. Maybe it's about learning that beauty was never about the outside at all. Maybe it's about learning to exist in my body instead of at war with it.

(I'm still crying while I write this. Three days later and I can barely see the screen. That's how deep this cut. That's how much this matters.)

The Wizard Song (Dreams and Disappointment)

"The Wizard and I" destroyed me. Not because it's sad—it's actually hopeful, which is worse.

"Many years I have waited / For a gift like yours to appear..."

Elphaba is singing about meeting this powerful person who will finally see her potential and make everything make sense. All the years of being different, being mocked, being an outsider—it will all be worth it

because the Wizard will understand.

And I'm watching this thinking: Oh no. Oh, sweetie, no.

Because I've been there. Still am there. Waiting for some professor or boss or authority figure to notice me and say "Yes, you belong here, you're special, everything is going to work out." Pinning all my self-worth on external validation from people who probably don't even remember my name, who will forget me the moment I leave the room. And I know it's pathetic but I keep doing it anyway because I don't know how else to know if I'm real.

The song is gorgeous and heartbreaking because you know it's not going to work out. The Wizard is a fraud (spoiler alert, but also, come on, we all know the story). Elphaba is setting herself up for the kind of disappointment that changes you.

(Also, can we talk about how Cynthia Erivo's voice just... exists? Like, how is that legal?)

But maybe that's the point. Maybe we all need to have our Wizard moment — that crushing realization that the people we thought had the power to validate us are just... people. Flawed, scared, sometimes corrupt people who can't give us what we're looking for because what we're looking for has to come from inside.

I'm still working on that part. (TBC...)



Singapore Exclusive: Hidden Twig Art Master

Tom Zhang
Arts

Many talented artists have existed throughout history; these people—Van Gogh, Da Vinci, DeVito, etc. —have a special connection to their craft, every creation advancing the world of art one stroke at a time. Presently, people can only observe their works in museums and exhibits, but never witness their creation. However, as I learned this summer, these masters of art still walk among us.

Hidden Master

It's a hot Singapore day (91.4°F, 80% humidity) and I came across a reel about an elderly man named Uncle Thien who creates portraits of people on the ground by placing fallen twigs. I thought this was really cool and many people in the comment section agreed, saying that his work should be placed in a museum.

Since Singapore is a very small place, I wanted to go see his art in person. So, I found some more interviews of him and found out that he usually hangs out on Owen Road. This road happened to be a two-minute walk from my house, and it would only take about ten minutes to walk down the entire road. So, after about 30 minutes of wandering after dark, I gave up. The next day, I tried again, this time looking only around HDB public housing flats. I found a man hunched over under a street lamp carefully selecting twigs to place onto the ground.

Self-Introduction

I complimented his drawing by saying, "Nice!" And realized he didn't speak English. So the rest of this conversation happens in Chinese:

I introduced myself as a student from America and Shanghai who does art as a hobby and he asked for my "honored surname" which I said was Zhang, "as in octopus."

He proceeded to do this very interesting action of forming the character for my last name on the floor using twigs. I then asked for his surname and he said that it was Cheng, which was different from "Uncle

Thien," the name that he was given in every single news interview.

Since he has a very raspy voice, I didn't know exactly which character he meant; it could be Chen or Zheng or something else. So he "spelled out" the character 陈 on the floor by taking the twigs from my name and forming them into his name. He actually ran out of twigs though, since my name is made of twelve twigs and his name needs thirteen.

After that curious introduction, I asked him whether I could interview him for my school newspaper, to which he simply replied that fame brings disaster. Deep.

So I said, "Can I just ask you some questions?" and he said "Sure!"

Basic Questions

Q: When did you start learning art?

A: I never really formally learned it, just self-studied.

Q: When did you start doing twig art?

A: Last year.

Q: How long did that drawing take?

A: Probably an hour.

Q: When do you usually show up?

A: Probably like 5 or 6 PM.

Q: What are the eyes made of?

A: The right is a bit of cloth I cut up, the left is a rock I found.

Q: We've been squatting for a while (stands up), my legs are already asleep, you must be very strong.

A: Yeah, if you don't practice squatting it's going to be quite difficult to squat for this long.

Q: How do you usually start a portrait? Eyes? Hair?

A: You can start wherever you want, just make sure it's a part that you are familiar with.

Practicing the Craft

On the question of what makes a portrait great, I think it's analogous to performing PCA (principal component analysis), because the goal is to strike a balance between capturing the spirit of your subject and using minimal complexity.

Twig art is perhaps the perfect medium for striking this balance. With pen and paper, the amount of paper and ink is not a limiting factor on com-

plexity in the same way that a twig artist would need to get up and look around on the ground for more twigs.

One crucial trick I learned is that by starting with the eyes, it's possible to anchor the portrait using various reference points. For example, the top of the ears must be on the same level as the eyes, and the bottom of the ears are on the same level as the bottom of the nose.

Although eyes are not exactly windows to the soul, their direction reveals a lot about the mood and focus of the subject. I'm not sure how realistic this theory is, but it's possible that the reason why eyes evolved to be white and pupils are black is so that people can identify these characteristics in others. For artistic purposes, since it's impossible to make a perfect circle with a twig, the choice of what to put for the eyes is up to the artist's discretion.

In one of the portraits below, Uncle Cheng uses a red leaf with a small stick on top of it to represent lips, which is another example of creatively sourcing materials for artistic expression.

To demonstrate this, Uncle Cheng moved the eyes slightly in his portrait from pointing left to pointing right and you could sense the shift of the subject from being shy to being confidently sly.

Further Questions

Q: Do you have any advice for young people?

A: Many people believe in superstitions like ghosts or spirits, but that's a distraction from the real world. Everyone should dedicate themselves to working hard.

Q: Where are you from?

A: Xiamen, China.

Q: Is there any good food in Xiamen?

A: No, the good food is in Guangdong and Hongkong.

Q: I was just in Hongkong and the egg waffles are great, have you ever been to Hongkong?

A: No, but there's lots of imported Hongkong-style restaurants around and they have a better aroma than the other restaurants.

Q: Do you have any other hobbies?

A: I like to go to East Coast Park and watch planes, and do calligraphy in the sand.

Q: Do you study calligraphy?

A: No, but I enjoy it a lot, though you shouldn't learn from me since I only graduated elementary school.

Well-Read

Uncle Cheng immigrated to Singapore with his father approximately 60 years ago, before which he was an actor for a Chinese opera group after graduating from elementary school. That's why the accompanying captions for many of his portraits are the titles of Chinese operas. For example, A Chinese Ghost Story, an original Chinese movie, was adapted into the 1987 Hongkong film.

Many have speculated about the identity of the woman that Uncle Cheng often draws, but according to another uncle who lives in the area, this woman that he often draws with her hair in a bob is a Malay girl that was his first love in Singapore. I find this to be plausible, but he draws a lot of different people so I cannot confirm this as fact.

For example, he often draws actors or characters from Chinese operas, films, and shows. Examples include Stephen Chow from *Shaolin Soccer* (2001) and *Kungfu Hustle* (2004) or Huimin Liu from a



Portrait of Uncle Cheng's alleged first love, right characters: "A twine of longing cannot cease emotions" (Credit: Tom Zhang).

show about E.R. doctors.

Even Further Questions

Q: Do you have any more advice?

A: People should read more novels and gain a better understanding of stories.

Q: Which stories would you recommend reading?

A: "The Heavenly Maiden's Marriage," "The Cowherd and the Weaver Girl," "Liu Yi Delivers the Letter," "Zhang Yu Boils the Sea," "Liu Hai Meets an Immortal," "A Chinese Ghost Story."

Q: What are your favorite songs?

A: "Key of Four Seasons," "Song of Hundred Flowers," "The Moon over the River on a Spring Night," "Island Spring."

Q: Have you ever taken any art classes?

A: No, I'm self-taught.

Q: Have you ever taught any students?

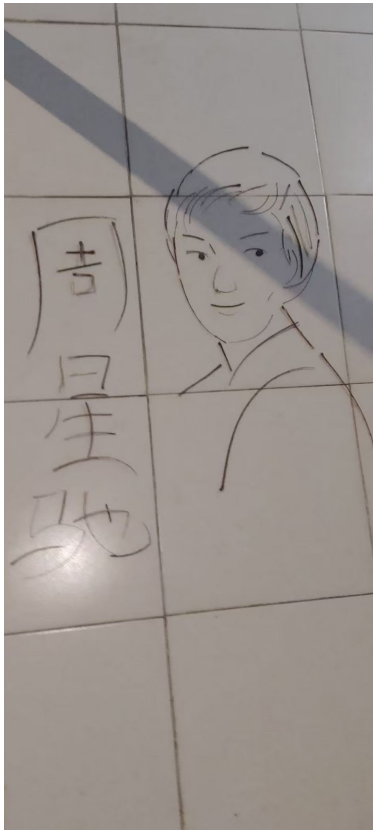
A: No, but an art school around here once invited me to teach some classes, though I turned down their offer.

Q: Why did you turn them down?

A: It seems like a big hassle and I would much rather them just come to this corner here and learn directly from me.

Uncle's Art

The last time I saw Uncle, I decided to make my own twig art with his guidance, and in the image below you can see how he removes twigs from his



A portrait of Stephen Chow by Uncle Cheng (Credit: Tom Zhang).

portrait to add to my portrait. I'm not sure exactly what it is about that, but it made me really emotional. Perhaps it's because the rain will soon wash these sticks away, or because these portraits are just two of many more to come.



Uncle Cheng working on the sidewalk (Credit: Tom Zhang).



Left portrait: Uncle Cheng's portrait of a woman, right portrait: my first attempt at twig art. (Credit: Tom Zhang)

When Italian Echoes Found Me 6,000 Miles from Home: A Love Letter to La Bohème

Camilla Fezzi
Culture

The November air was 50 degrees when we lined up outside the Dorothy Chandler Pavilion. I adjusted my layers—comfortable but warm, as the email instructed—and felt my heart racing. It had been so long since I'd heard Italian sung like this.

I'm from Verona. Yes, that Verona—Romeo and Juliet's city, but more importantly to me, the city of opera. The Verona Arena has been the world's largest open-air opera venue since 1913, hosting performances under the stars in an ancient Roman amphitheater for over a century. Opera isn't just entertainment there—it's in our DNA, our streets, our history.

But tonight, I was 6,000 miles from home, about to experience Puccini in Los Angeles through the OperaWise program—a free opportunity for college students to witness an orchestra technical rehearsal.

The OperaWise program offered us something rare and precious: access to an orchestra technical rehearsal—that electric, unrepeatable moment when all the elements converge for the very first time. We filed into the Dorothy Chandler Pavilion, that grand dame of Los Angeles culture, dedicated in 1964 as “A Living Memorial to Peace.” For decades, it hosted the Academy Awards; today, it stands as the home of LA Opera, the fourth-largest opera company in the United States. The space itself commands reverence—those grand chandeliers, the sweeping architecture, the sense that important things happen here.

But we weren't there for the glamour. We were there for the truth.

I found my seat and placed my backpack beneath it, laptop tucked away as instructed. No recording devices. No food or drink past 6:15 p.m. Just us, the performers, and the raw vulnerability of a first run-through. The stage stood ready, costumes prepared, the orchestra pit alive with tuning instruments. And then, in that held-breath moment before the downbeat, I felt something unlock inside me.

The Language That Remembers

“Nei cieli bigi...”

When the first Italian words floated from the stage, something cracked open inside my chest.

You can live far from home. You can adapt to new languages, new customs, new ways of being. But hearing Italian sung in opera—true Italian opera, Puccini's Italian, with all its melodic cadence and emotional weight—is like hearing your mother's voice call you home for dinner when you were seven years old.

It wasn't just language. It was a memory. It was every summer evening in Piazza Bra, waiting for the opera to begin as the sun set behind the Arena's ancient arches. It was my grandmother's voice explaining the story of Mimì and Rodolfo, teaching me that opera tells the truths that ordinary words cannot reach.

Giacomo Puccini wrote *La Bohème* in 1896, and it has become one of the most performed operas in the world for a reason: it speaks to something

universal and achingly human. The opera explores themes of love, art, personal freedom and the fragility of life—the way young dreams collide with harsh reality, the way passion burns brightest just before it dies.

The Story That Never Ages

The plot unfolded before us with devastating simplicity: Rodolfo, a struggling poet in bohemian Paris, burning his manuscripts just to keep warm in his freezing garret. Mimì, a fellow tenant with a deadly illness hidden beneath her gentle exterior. A chance meeting on a winter's night, a dropped key, hands touching in the darkness, and suddenly—love. Impossible, inconvenient, doomed, and absolutely inevitable love.

Oreste Cosimo sang Rodolfo with a tenor that soared and broke in equal measure, while Janai Brugger brought to Mimì a fragility that made you want to protect her even as you knew you couldn't. The second couple—Marcello (Gihoon Kim) and Musetta (Erica Petrocelli)—provided the tempestuous counterpoint, their on-again, off-again relationship crackling with the kind of passion that's equal parts joy and warfare.

But this wasn't a finished performance. This was the technical rehearsal, the moment where things can—and do—go imperfectly. A missed cue here, a lighting adjustment there, the conductor Lina González-Granados pausing to refine a passage, then sweeping the orchestra back into Puccini's transcendent score. This was creation in real time, the honest work of bringing beauty into being.

And somehow, that made it more moving. Not less.

Sitting in that auditorium, I found myself thinking about bohemia—not just the Paris of Puccini's imagination, but the bohemia we all carry. The bohemia of being young and broke and passionate about something the world doesn't value enough to pay for. The bohemia of choosing art over comfort, dreams over security, love over logic.

I thought about why I'm here, so far from Verona. Why any of us leave home. We're all a little bit Rodolfo, burning our manuscripts for warmth, hoping our words mean something. We're all a little bit Mimì, hiding our vulnerabilities while searching for connection in a cold world.

The Italian lyrics washed over me, and I didn't need the English subtitles projected above the stage. I knew these words. I'd known them since before I could remember learning them. They're part of the cultural DNA of every Veronese child, embedded as deeply as the stone of the Arena itself.

“Che gelida manina...” (Your tiny hand is frozen...)

“Mi chiamano Mimì...” (They call me Mimì...)

“O soave fanciulla...” (Oh lovely girl...)

These aren't just arias. They're the vocabulary of longing, the grammar of heartbreak, the syntax of every love that ever knew it couldn't last.

There's something profound about witnessing an orchestra technical rehearsal that you don't get from a polished performance. You see the scaffolding of art, the framework beneath the beauty. You hear the conductor stop and restart,

adjusting dynamics, clarifying intentions. You watch singers move through blocking while holding their music, not yet fully embodying the characters but beginning to find them in their bodies.

Director Brenna Corner's production, based on Herbert Ross's timeless vision that the Los Angeles Times praised as a “warm, nostalgic evocation of Paris in Puccini's time,” wasn't yet complete. But its bones were visible, and they were strong.

The orchestra—oh, the orchestra. Puccini's score for “*La Bohème*” is drenched in lush Romanticism, gorgeous melodies that stick in your heart like splinters of beauty you can't extract. Hearing it in the pit, watching the musicians' concentration, feeling the sound build from individual instruments into this overwhelming collective voice—it reminded me that opera is ultimately a communal act. Dozens of people, hundreds of hours, countless individual decisions all converging into one shared moment of transcendence.

The Universal Language of Loss

The opera runs approximately two and a half hours, including one intermission, but time moved differently in that space. We were in Puccini's Paris, freezing in a garret, celebrating Christmas Eve in the Latin Quarter.

By the time we reached Act IV—when Mimì, dying of tuberculosis (or consumption, as they called it then), returns to Rodolfo one last time—the technical nature of the rehearsal had fallen away. Yes, there were still stops and starts. Yes, the lighting wasn't perfect. Yes, this was a work in progress.

But the emotional truth was complete.

Tuberculosis in “*La Bohème*” is more than a plot device; it's a metaphor for all the ways poverty kills dreams, for how social inequality is literally deadly, and for the reality that love isn't always enough to save someone. Mimì's death—slow, inevitable, and heartbreaking—forced every person in that auditorium to confront the fragility of life, the cruelty of circumstance, and the inadequacy of passion in the face of real-world suffering. I felt my own throat tighten. This was why we were here. Not for perfection, but for truth.

Coming Home Through Music

As we filed out into the November night, the cold air hitting our faces like a gentle slap back to reality, I realized something: I hadn't felt homesick in that theater. I had felt home. Verona will always be in my blood. The Arena will always be my first opera house. But sitting in the Dorothy Chandler Pavilion, listening to Italian sung with passion and skill, surrounded by other students who had chosen to spend their evening in the company of a 130-year-old opera about poverty and love and death—I understood that opera itself is home.

It doesn't matter if you hear it in the ancient Roman amphitheater of Verona or in a midcentury modern pavilion in Los Angeles. It doesn't matter if it's a gala opening or a technical rehearsal with rough edges showing. What matters is the collective agreement to let mu-



Entry of the OperaWise Program

sic carry emotional weight that speech cannot bear.

LA Opera has been producing opera since 1986, building a tradition in a young city, proving that opera isn't just for Europe's ancient stones but for anywhere people gather to witness beauty and pain transformed into art.

And “*La Bohème*,” with its themes of love, art, and the memories of youth, continues to resonate because it captures something timeless about the human experience: the tension between dreams and reality, the way we burn bright and brief, the cruel arithmetic that says passion and longevity rarely coexist.

The Echoes We Carry

I thought, on the bus ride home, about Puccini. He never saw Verona's Arena become one of the world's greatest opera venues—he died in 1924, just 11 years after the first “*Aida*” rang out from those Roman stones. But he would have loved it. He understood what all great opera composers understand: that music is the only language capacious enough to hold our largest emotions. Being from Verona, I've sometimes taken opera for granted.

It was always there, woven into the fabric of everyday life, as common as good wine and old architecture. Moving away gave me the strange gift of rediscovering it as something precious, not by default.

That technical rehearsal of “*La Bohème*”—with its stops and starts, its visible seams, its honest labor—reminded me why opera endures. Not because it's perfect, but because it's willing to reach for impossible beauty knowing it will fall short. Because it insists on grand emotion in an age of ironic detachment. Because it believes that stories about poor artists and dying seamstresses in 19th-century Paris can still break open the hearts of students in 21st-century Los Angeles.

The OperaWise program is free, offered as a gift to students of all disciplines, because LA Opera understands that opera isn't just about music—it's about theater, design, language, history, human psychology, social commentary, and the simple, profound act of witnessing others' stories unfold. I'm grateful I said yes to that opportunity. Grateful for the no-food, no-drink rules and



the 50-degree evening and the prohibition on recording. All of it forced us to be present, to experience rather than capture, to let the moment be itself instead of trying to preserve it. **What Remains**

As I write this now, I can still hear fragments of that rehearsal playing in my mind. Rodolfo’s soaring tenor. Mimi’s delicate soprano turning to ash in the final act. The orchestra swelling underneath, carrying the weight of every emotion the characters couldn’t speak. I can still feel what it was like to hear my language sung with such care and craft by performers who may not be Italian but who understood something essential about Puccini’s music: that it demands

both technical excellence and emotional nakedness. To anyone reading this who has never been to an opera, who thinks it’s too fancy or too foreign: find a way to go. Not necessarily to a gala performance (though those are beautiful too), but to something like this—a rehearsal, a preview, a moment when the art is still becoming itself. Opera is not a museum piece. It’s living, breathing, constantly renewed with each performance, each interpretation, each generation of singers and musicians and audiences willing to step into a darkened theater and agree, collectively, to feel something big. And if you’re far from home, if you’re carrying the weight of distance and difference, if

you sometimes wonder whether you’ll ever feel truly rooted again: find the thing that sounds like home to you. For me, it’s Italian opera. For you, it might be something else entirely. But when you find it, let it hold you. Let it remind you that home isn’t just a place—it’s a frequency, a resonance, a set of vibrations that can reach you anywhere in the world if you’re willing to listen. “Vecchia zimarra, senti...” (Old coat, listen...) Colline sings in Act IV, bidding farewell to his shabby overcoat, that faithful companion of his poverty. It’s a minor moment in the opera, easily overlooked, but it contains such tenderness for the objects and experiences that accompany us through our struggles.

I thought about that on the bus home, clutching my backpack, my old companion through late nights and long days far from Verona. About how we carry home with us in unexpected ways. About how sometimes you have to travel 6,000 miles to understand what you’ve always had. “La Bohème” ends in death, but it lives in memory—in the way Rodolfo will carry Mimi’s love for the rest of his life, in the way we carry the art that moves us, in the way I will carry that November night in the Dorothy Chandler Pavilion, hearing Italian echoes find me in the California darkness and whisper, gently, benvenuto a casa—welcome home.

“La Bohème” continues its run at LA Opera at the Dorothy Chandler Pavilion. For more information about OperaWise and other community programs, visit laopera.org

The Room of the Impossible

Camilla Fezzi
Inner Voices

There will always be that strange feeling—the fear of not belonging, the sense that everything I do is so tiny, so fragile and transient that nothing will remain. That maybe all of it is fiction, and one day I’ll wake up and realize this exhaustion inside me, this fear and uncertainty, were never real—just the product of my imagination.

I will wake up in my little room on the fifth floor of a concrete building, stained by rain and time, its renovation work postponed for years, in the perfect Italian way. Every time I looked at it from afar, my stomach sank. It was ugly, quiet, filled with bent antennas and peeling paint—but it was home. Whenever I feared I didn’t belong anywhere, I thought of that narrow balcony, the rusty railings, the laundry that swayed without grace. It reminded me that somewhere, somehow, a part of me existed. My fifth floor. My nothing. My everything.

On the façade, just above the patches of dampness, ran thin lines, like veins in the wall. As a child, I believed they outlined the apartments inside—as if every family had its own precise border, as if love had a floor plan. My room was framed by those lines: I could trace them in the summer light, beside the stickers on the window and the white bars my mother had put up so I wouldn’t lean out too far.

I remember the gate creaking, the red elevator so small my brother and I had to wedge ourselves inside with our schoolbags and giggle softly so it wouldn’t jam. I remember the car window and my childhood habit of pointing at everything red—my favorite color—as if each red thing somehow belonged to me.

But the hardest and sweetest thing to remember is my little room: a space overflowing with books tumbling onto each other, stuffed animals curled like sleepers, glow-in-the-dark stars on the ceiling that only came alive at night and kept me company. My electric piano sat balanced on the desk—there was no room for anything else. Photos of happy days—always past, never present—stared back from the wall.

There was a small bedside table with a prayer book, a Lego collection built winter after winter, medals from odd competitions, ribbons, pictures of horses I could never afford. Dreams crammed into draw-

ers among colorful pens and notes—scribbles meant to keep me alive. Behind my bed hung a map of Greek mythology, my companion in imaginary travels. Each night I stared at its golden gods and heroes and whispered to myself that one day I would find my place too, somewhere out there.

My room smelled like me. The pillowcases were soft, and in the afternoons the light fell in grid-like slants across the wooden floorboards. I danced invisible waltzes in my mother’s high heels, jumped like an athlete, chalked equations on furniture, and imagined Saturn’s rings, the double helix of DNA, the symmetry of geometry. The cream-blue color of the walls soothed me, even when I didn’t understand anything about myself.

But that same room has also known the dark—the silence, the fears, the sleepless nights, the tears.

Tears falling onto the desk while a motorbike roared down the street outside and car horns echoed between cracked buildings. Cries muffled into the pillow so no one would wake, because screaming never changed anything. Endless nights in front of a glowing screen, eyes burning, head heavy, pushing myself to finish applications that felt larger than I was. The clacking of the keyboard became my heartbeat. Each click carried fear, longing, fatigue.

No one believed in me or in my plans, and the silence of those I loved weighed more than a thousand refusals.

I cried over broken loves and trampled friendships, over words said wrong and words never said. I cried because no one talked to me at school, because during recess, even my breathing felt too loud, out of place. I cried for loneliness, for an adolescence that never began, and for an adulthood that arrived too soon—heavy, ill-fitting, like a coat that wasn’t mine.

Now that room is empty. It’s become “the room of the impossible.” That’s what my parents call it now, their voices hovering between pride and disbelief. Even my dog, who once refused to leave the room, now avoids it—as if sensing that something sacred, unfinished, lingers inside.

When you walk in, the floor creaks softly. The walls seem to breathe. You can still see the faint tape marks where I hung formulas and star maps, the white circle where the clock used to be, the ghost of a torn

poster. The air smells like paper and memory. Yet from that emptiness rises a quiet, maternal strength.

Sometimes my mother pauses in the doorway and whispers, “This is where the impossible happened.” And I look at her without speaking, because I know it’s true.

I’m in California now. I look up and see palm trees slicing the blue Pasadena sky, the corridors of Caltech lined with blackboards and half-empty coffee cups. I study among people I once read about in textbooks. I walk among telescopes, molecular models and equations scribbled everywhere, and each time I solve one, I hear the little girl from that fifth-floor room whisper, “See? It wasn’t impossible.”

I received 20 acceptance letters, 20 yeses, and yet none of those victories weighs as much as the smell of that room. Everything began there — in that sun-starved apartment, in the ugliest building of my city.

Every time I return, I open the window and let the dusty air fill my lungs. The room gazes back at me, as if asking what I’ve discovered, how far I’ve gone, whether I’ve finally found a place where I belong. I don’t answer. I simply touch the cold wall, scarred with scratched-out formulas, and think that maybe belonging doesn’t mean staying—it means remembering.

Perhaps belonging means carrying that empty room inside you, like an orbit that never breaks.

Leaving Italy wasn’t like closing a door; it was like stepping through a mirror. I left behind the smell of coffee in the morning, the neighbors shouting about parking spots, the worn steps of my building, low horizons and high fears. I carried everything with me—even the words, “You’ll never make it.” I boarded that plane with heavy suitcases, but the real weight was invisible: nostalgia, the guilt of wanting more than I was supposed to, the defiance of stepping outside the boundaries others had drawn for me.

And yet, I would do it again, endlessly. Because I’ve always known that my greatest love wasn’t a person—it was science.

It’s not something that comforts you but something that strips you bare. It keeps you awake, tests you, forces you to look at the truth without flinching. It’s ruthless and beautiful, and I chose it because it was the only language that never lied.

When I walked through the gates of Caltech, badge warm in my hand, something inside



In the corner of the Room of the Impossible with Spotty!

me shifted. It wasn’t triumph—it was recognition. It was realizing that the child who once drew planetary orbits in chalk hadn’t dreamed in vain. Every equation I write now, every experiment, every late night in the lab is a love letter—a silent message to that version of myself still sitting in the room of the impossible.

Sometimes, when I’m alone at the microscope and everything goes still, my reflection in the glass overlaps with the memory of my old window. The same fear, the same spark. And I understand that I never really left anything behind—I just moved my sky further away, lifted my orbit a little higher.

I left Italy to chase a dream everyone called fragile, and yet it’s the dream that kept me alive. My homeland now is made of numbers, formulas and luminous silences. And when night falls over Pasadena and the sky floods with stars, I can almost feel that room breathing again—across the ocean—and once more, I can believe it: the impossible only needs someone stubborn enough to make it real.

Sometimes I dream of returning to that room.

The door opens on its own, as if it had been waiting. The floor trembles faintly under

my feet, the walls breathe in rhythm, the window fills with light. On the bed, no books, no pillows—only a spread of sky. I step closer and see the orbits I once drew, the geometric shapes, the fragments of DNA floating like golden threads.

And then I know—I never stopped living there. The room has changed shape: now it’s a lab, a starlit night in California, but it’s the same, unchanged in essence. Every calculation I trace is still a prayer; every discovery, a small victory for that child who once believed against everything and everyone.

The fifth floor now beats inside me.

And the room of the impossible still pulses wherever I go—like a heart that never forgets where it first learned to beat.

The science of thought: philosophical insights into scientific practice

A Letter to Future Generations: On the Philosophy of Happiness — Part II

Eudaimonia: Actually Building a Life Worth Living

by Camilla Fezzi

Okay, so if happiness isn't the next achievement or perfect Instagram moment, what is it? Enter Aristotle, who's honestly the GOAT when it comes to this stuff. He had this word—eudaimonia—that gets translated as “happiness” but really means something closer to “flourishing” or “living well.”

Think of it this way: happiness isn't a destination or even a feeling. It's more like... being a plant that's getting the right amount of water, sunlight, and nutrients. You're not “happy” in the sense of grinning 24/7. You're thriving. You're becoming the fullest version of what you're capable of being. That's

eudaimonia.

And here's the kicker: Aristotle said this isn't about feeling good in the moment. It's about looking back on your life and seeing a coherent whole—a life lived with purpose, character, and meaning. You can't judge whether someone's life was happy from a single day or even a single year. You have to look at the whole arc. As he said, “one swallow does not make a summer.”

“Happiness is not a destination, it is a way of life. It is not something to be achieved, but something to be experienced in the living itself.”

— Aristotle (384-322 BCE)



So how do you actually achieve this? Aristotle breaks it down into three key components:

1. Arete (Excellence/Virtue): This isn't about being a perfect angel. It's about developing your character—being someone who shows up for their friends, who does the right thing even when it's inconvenient, who treats people with respect, who pursues their work with integrity. It's about being someone you'd actually respect if you met them.
2. Phronesis (Practical Wisdom): This is like having good judgment. It's knowing when to speak up and when to stay quiet, when to work hard and when to rest, when to com-

promise and when to stand firm. You don't learn this from books—you learn it from living, from making mistakes, from paying attention to what actually works in the messy reality of life.

3. Eudaimonia (Meaningful Activity): This is about actually doing something with your life that matters. Not necessarily changing the world, but engaging fully with projects and relationships that have real stakes. It's the opposite of just going through the motions or numbing out with distractions.

The Golden Mean (Or: Why Extremes Always Burn You Out)

Aristotle also had this concept called the “Doctrine of the

Mean” that's going to save you from so much college drama. Basically: virtue is the middle ground between extremes. Let me give you some real examples:

Courage isn't being reckless (jumping into every dangerous situation to prove something) or cowardly (avoiding all risk and challenge). It's facing things that scare you when it matters, while being smart about it.

Confidence isn't arrogance (“I'm better than everyone”) or self-deprecation (“I'm terrible at everything”). It's honest acknowledgment of your strengths and weaknesses.

Social life isn't being a party animal who never studies or being a hermit who never leaves the library. It's finding balance that actually serves your life goals, that still need to find

You're going to swing to extremes. That's normal. But pay attention to how those extremes make you feel over time, and start gravitating toward the middle. That's where sustainable happiness lives.

some things are not.”

— Epictetus (50-135 CE)

This quote is going to be tattooed on your brain by the time you're done with college. Epictetus's insight is stupidly simple but incredibly hard to practice: you need to focus 100% of your energy on what you can control, and let go of everything else.

What you CAN control: How hard you study. How you treat people. What you do with your free time. Whether you show up for your friends. How you respond when someone hurts you. Your effort. Your attitude. Your integrity.

What you CAN'T control: Whether the professor likes your essay. Whether you get the job. What people think of you. Who your crush likes. The economy. Your roommate's habits. Other people's opinions. Natural disasters. Whether you get sick. The past. Most of the future.

Here's the brutal truth: you're wasting probably 80% of your mental energy worrying about things you cannot control. That anxiety about whether you'll get into grad school? Can't control the admissions committee. That spiral about what people thought of your presentation? Can't control their opinions. The Stoics would tell you to redirect all that energy toward what you CAN control: making your application as strong as possible, improving your presentation skills for next time.

And here's the really radical part: the Stoics practiced amor fati—love of fate. Not because they were masochists, but because they understood that suffering doesn't come from events themselves. It comes from the gap between what happens and what we think should happen. When you stop fighting reality and start working with it, you reclaim your power.

“You have power over your mind—not outside events. Realize this, and you will find strength.”

— Marcus Aurelius (121-180 CE)

Marcus Aurelius—literally the emperor of Rome—wrote this in his private journal while

dealing with wars, betrayals, and a collapsing empire. If he could find peace in that chaos, you can find it in yours. The man was journaling about inner peace between battles. That's the energy we need.

And Seneca? This guy was rich, powerful, an advisor to emperors—and he kept reminding himself that none of it mattered for his actual happiness. He called wealth and success “preferred indifferents”—nice to have, sure, but completely irrelevant to inner peace. And he proved it: when he was ordered to commit suicide by a tyrant, he faced it with the same calm dignity he'd had at the height of his power.

The lesson: By all means, pursue your goals. Work hard. Build a career. But don't make your happiness dependent on outcomes you can't control. Success is great, but it's not where happiness lives. Happiness lives in how you show up, regardless of the results.

The View from Above (Or: How to Stop Catastrophizing)

When you're spiraling at 2 a.m. about failing that midterm or embarrassing yourself at a party, try this Marcus Aurelius exercise called “the view from above.” Zoom out. Way out. Imagine yourself from space, seeing Earth as a tiny blue marble. Now zoom out further—to the solar system, the galaxy, the universe. Now zoom in on time: in 100 years, everyone who knows about your embarrassing moment will be dead. In 1,000 years, no one will remember your college existed.

This isn't meant to make you feel insignificant. It's meant to free you from the tyranny of petty concerns that feel like the end of the world but actually... aren't. That C+ on your paper? Not actually the catastrophe it feels like. That social awkwardness? Not worth the three weeks you'll spend replaying it in your head. The view from above gives you perspective and, with that perspective, peace.



Happiness
is the
highest
good
Aristotle

Caltech Wildlife: Sunday Birding with Pasadena Audubon Society

Jieyu Zheng
Caltech Wildlife

From the gridiron to the frOn Sunday, Nov. 9, Caltech hosted its inaugural campus bird walk with the Pasadena Audubon Society (PAS), a local nonprofit dedicated to birding and bird conservation. Although birding on campus has long been a cherished tradition—including the weekly bird walks led by Dr. Alan C. Cummings since 1986 (more on that in a future issue)—this was the first time the event was organized as an official PAS field trip, opening Caltech’s habitats to many local birders beyond the campus community.

The trip was co-led by Alex Coffey, PAS Field Trips Committee Chair, and me, your nerdy columnist. A total of 28 adult participants—plus a baby a few months old—joined the 2.5-hour walk, possibly setting a record for the largest birding group ever seen on campus. Most attendees were not affiliated with Caltech; many were Pasadena residents who live just blocks away but had barely explored the campus grounds.

We began promptly at 7 a.m. at the northwest corner of campus. Although daylight saving time had shifted the human clock an hour forward, the birds remained faithful to their own schedule, starting their

activity at 6:20 a.m., around sunrise. The bright-eyed birders immediately identified the silhouettes and raucous calls of the local Amazon parrots. Early morning skies were busy with traffic—mourning doves, American crows and bushtits passed by our heads. A juvenile Cooper’s hawk was spotted perched high in a pine tree along Michigan Avenue.

Many fall migrants soon joined the scene. A flock of cedar waxwings swept by, and the sharp “zip-zip” calls of yellow-rumped warblers provided a soundtrack for much of the morning. The group also spotted two orange-crowned warblers and a few ruby-crowned kinglets, which are normally rather elusive as they often dart nonstop through the leaves. “Caltech is a great place for birding,” Alex noted. “The pavement runs right next to trees and shrubs, so you can get remarkably close views of species that are usually hidden deep in forests and far in open lands.”

Two Caltech students also participated. “Many corners I often ignored have cute little creatures,” said Siyuan Yin, a G4 in Medical Engineering. She suggested that fellow students look for these “cute little creatures” whenever they feel down or anxious.

A good bird walk often also features a mammal walk. Fox

squirrels foraged busily among the oaks, some stuffing fallen olives into their mouths, a treat that would make humans grimace. Only a few undergraduate students were observed walking on the otherwise quiet campus, which was a reassuring sign that work-life balance was recovering after midterm exams.

For me, this was the first time leading a large birding group. I felt a bit nervous at the start, but Alex’s experience and everyone’s curiosity and enthusiasm quickly put me at ease. After four and a half years at Caltech, it was deeply satisfying to introduce the campus, with its trees, ponds and feathered residents, to people visiting for the first time. Planning the route also gave me a fresh perspective on familiar grounds. I was delighted to find that we completed the entire loop without using any stairs, a sign that the campus is quite accessible to all.





CHECKLIST S283738673

Sun 9 Nov 2025 7:00 AM

Caltech campus  Los Angeles County, California, United States

Alex Coffey +5 

Traveling Complete 

 28  2 hr, 30 min  1 mi

Submitted from eBird for iOS, version 3.4.5

 26 Species Observed

1 Rock Pigeon (Feral Pigeon)

4 Mourning Dove

20 White-throated Swift

3 Anna's Hummingbird

2 Allen's Hummingbird

1 Cooper's Hawk

10 Acorn Woodpecker

12 Red-crowned Amazon

eBird trip report by Alex Coffey, leader of the walk and field trips committee chair at PAS.



A western bluebird taught us about coyotes. (Credit: Jieyu Zheng)



A juvenile Cooper’s hawk perched on the pine. (Credit: Jieyu Zheng)



A pair of crows dance in front of Red Door. (Credit: Siyuan Yin)



A female Anna’s hummingbird was enjoying a sip of nectar behind Caltech Hall. (Credit: Jieyu Zheng)

The California Tech
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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.
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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.

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

The California Tech

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The California Tech

#28

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, actually this time! Gift cards sponsored by CalGuesser Benefactor Kevin Kan, but only if you find it before he does!!!**

“On campus” is defined as the convex hull of the buildings shown on caltech.edu/map/campus.
The QR code will be hidden somewhere within the pictured area.

TECH EDITOR'S CORNER

Bonus content, totally disconnected from any current events. From your favorite *Tech* editors <3

Year's End

By RICHARD WILBUR

Now winter downs the dying of the year,
And night is all a settlement of snow;
From the soft street the rooms of houses show
A gathered light, a shapen atmosphere,
Like frozen-over lakes whose ice is thin
And still allows some stirring down within.

I've known the wind by water banks to shake
The late leaves down, which frozen where they fell
And held in ice as dancers in a spell
Fluttered all winter long into a lake;
Graved on the dark in gestures of descent,
They seemed their own most perfect monument.

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There was perfection in the death of ferns
Which laid their fragile cheeks against the stone
A million years. Great mammoths overthrown
Composedly have made their long sojourns,
Like palaces of patience, in the gray
And changeless lands of ice. And at Pompeii

The little dog lay curled and did not rise
But slept the deeper as the ashes rose
And found the people incomplete, and froze
The random hands, the loose unready eyes
Of men expecting yet another sun
To do the shapely thing they had not done.

These sudden ends of time must give us pause.
We fray into the future, rarely wrought
Save in the tapestries of afterthought.
More time, more time. Barrages of applause
Come muffled from a buried radio.
The New-year bells are wrangling with the snow.

