

Is That All There Is? — On Lynch and Disillusionment

Damian R. Wilson
Letter From the Editor

I am obsessed with David Lynch. Maybe unhealthily so. Few directors feel as fluent in the art of the somnambulistic; I know of no other director who could so deftly craft phantasmagorical operas of the manifold dream-nightmare that is the human experience.

Desperate for Lynchian vibes at 3 a.m. one recent night, I sifted through Spotify playlists until I stumbled upon Peggy Lee—specifically one of her most popular songs, first performed in 1969. The song is based on Thomas Mann’s 1896 short story “Disillusionment.” In both works, the central character recalls one memory after another—their house burning down, a circus billed “the greatest show on Earth,” falling in love—before repeatedly posing the same haunting question, translated by Lee as: *Is that all there is?*

Life, especially now, can feel like a Lynchian nightmare. The grotesque becomes routine. The bizarre becomes expected. We become spectators in a world that keeps showing us more and more absurdity—until even the most shocking images begin to lose their power. We ask, “Is that all there is?”—not with curiosity or wonder, but with a kind of weary resignation.

This is no trivial danger: the numbness that creeps in

when we’re bombarded with spectacle after spectacle. The existential fatigue that Lee’s song captures so well—a voice that flattens calamity into a casual shrug—becomes the soundtrack to our lives. We disengage, becoming passive observers of a never-ending performance. The song’s cyclical structure—memory after memory, always returning to that same question—mirrors our own political and social cycles: crisis, outrage, exhaustion, and finally, normalization.

Read this way, Peggy Lee’s question is more than a philosophical musing. It’s a warning. When each new crisis, each fresh absurdity, is met with a numb “Is that all there is?”—we lose the will to resist. We risk becoming complicit in the transformation of the surreal into the everyday, of the grotesque into the new normal. And so, the chorus of Lee’s song becomes a political refrain as well as an existential one, urging us to recognize, and to resist, the lure of disengagement.

To that end, I am immensely grateful to be your new editor, and I appreciate you taking the time out of your assuredly busy Caltech day to read this. Journalism is the art of engagement, and it warms my heart to see it thrive in this community. May we keep resisting the siren song of disillusionment—together.

Sincerely,
Damian R. Wilson
Editor-in-Chief

Stars, Solutions, and Service: A SASS Lunch with Dr. Lorraine Lundquist

Camilla Fezzi
The Outside World

At first glance, Dr. Loraine Lundquist might strike you as a scientist with her head in the stars. After all, she holds a Ph.D. in physics from UC Berkeley and once helped launch a satellite to study the Sun’s magnetic field. But spend an hour with her, and that’s precisely what we did during the recent SASS Lunch hosted by the Caltech Y—and you’ll quickly realize that her gaze is firmly grounded on Earth, with a heart set on building a more just and sustainable future right here in Los Angeles.

The lunch, held on May 21 in the heart of Caltech’s campus, was more than a typical speaker event. It was a rare opportunity to hear from someone who has traversed the worlds of science, activism, teaching, and public service and assumes each role with humility and purpose.

From Cosmic Questions to Community Action

Dr. Lundquist shared how she began studying the universe’s grandest mysteries. Her early career included work as a research scientist at the Harvard-Smithsonian Center for Astrophysics and a Science and Technology Policy Fellow at the National Academy of Sciences. Yet, becoming a mom

dramatically reshaped her priorities. Faced with the existential threat of climate change, she pivoted from astrophysics to advocacy, embracing “common-sense solutions” to the climate crisis. Her scientific training both provides her with clarity about the problem’s scale and deepens her sense of urgency.

Now, as a Faculty Associate at the Institute for Sustainability at CSUN, she focuses on empowering students to act, encouraging them to see themselves as learners and change-makers. Her courses cover environmental, economic, and social sustainability, and she even runs outreach programs in local K-12 schools, bringing science and climate education directly into communities.

Leadership Rooted in Real Life

What makes Dr. Lundquist’s voice so compelling is her résumé and her deeply human story. Raised by a middle school math teacher and a U.S. Army officer decorated with a Purple Heart, she describes her upbringing as working-class and “normal,” filled with the kind of grounded discipline that nurtures ambition.

She’s also lived the values she speaks about. She’s a parent to three children—one of whom

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A Senior Prank of Cosmic Proportions: Kip Thorne’s 85th Birthday Bash

Damian R. Wilson
The Inside World

Contrary to a certain rumor, this year’s Senior Prank did *not* involve placing a Cybertruck on the roof of Beckman Auditorium. Instead, we celebrated Nobel Laureate Prof. Kip Thorne’s 85th birthday following the transformation of Beckman

into the wedding cake it’s often called. Festivities included a music-synchronized light show and Kip-themed treats: Kipcorn (popcorn), Kippy candy (cotton candy), atomic fireballs, Starburst, cosmic freeze berry star clusters, star lollipops, Kipper snacks (sardines), and Milky Ways. It was truly an out-of-this-world party that bent the fabric of space-

time!

Happy 85th Birthday to our beloved Kip, and congratulations to our graduating seniors! Y’all worked unbelievably hard to get here and should be incredibly proud of yourselves for conquering the Caltech gauntlet. May your futures be as bright, colorful, and wonderful as this celebration!



Photos courtesy of Camilla Fezzi.



Dr. Lundquist and her family. (Source: loraineforla.com)



Image from “[KNOCK Endorsement: Lorraine Lundquist for Los Angeles City Council District 12,](#)” Knock LA Editorial, Knock LA, April 29, 2019.

Finding Faith and Family Far From Home: My Journey With ASK Ministries

Camilla Fezzi
The Inside World

When I first set foot in California, leaving behind the sun-kissed hills of Italy, my heart was heavy with anticipation and anxiety. As someone raised in a profoundly Catholic family, faith was not just a tradition—it was the very fabric of my upbringing. Church bells, Sunday Mass, and a close-knit parish community were constants in my life. The thought of crossing the Atlantic for my studies filled me with excitement and a silent worry: Would I find a place where my faith could thrive? Would I see a community that shared my values, or would I feel lost in the vastness of a new culture?

Those doubts lingered until I discovered ASK Ministries.

From Worry to Welcome

Arriving at Caltech, I quickly realized how easy it was to feel alone. The intensity of academic life, the diversity of backgrounds, and the sheer busyness of everyone made it difficult to form deep connections. But my longing for Christian fellowship pushed me to search for a club where faith was more than an afterthought. That’s when I heard about ASK Ministries—initially “In Christ Alone”—and decided to attend one of their Bible studies.

From the very first meeting, I sensed something special. There was a warmth and authenticity in the group that instantly put me at ease. I wasn’t just another student or a foreigner with a funny accent (hopefully better now). I was welcomed as a sister in Christ, part of a community whose mission was to reach students like me—people longing for faith, friendship, and a sense of belonging. Also, I have never done anything like this in the Catholic Church, and every study was unique.

Discovering ASK Minis-

tries

Curious to learn more about the heart behind this community, I sat down with Riley Wood, the dynamic leader of ASK, who is also a senior in BEM and IDS. Riley shared with me the remarkable journey of ASK Ministries, from its humble beginnings as a small Bible study to a thriving club drawing dozens of students. From the moment we began talking, I was struck by Riley’s sincerity. He spoke candidly about the challenges ASK Ministries faced in its early days—how the first Bible studies were sparsely attended, and how doubts sometimes crept in about whether the club would survive.

But it was precisely in those moments of uncertainty that Riley’s faith was forged. “We realized it wasn’t about numbers,” he told me. “It was about being faithful to what God had called us to do: to create a space where students could encounter Christ and each other in real, meaningful ways.”

I asked Riley about transitioning from “In Christ Alone” to ASK Ministries. He explained that the change was both practical and deeply symbolic. “ASK stands for ‘Ask, Seek, Knock,’ from Matthew 7:7. It’s a reminder that God invites us to pursue Him with our questions, doubts, and hopes. We wanted the name to reflect our mission—to be a welcoming place for anyone searching, regardless of where they’re coming from.”

Riley’s eyes lit up when he described some of his favorite moments: spontaneous worship sessions, late-night prayer circles, and seeing students who had never set foot in a church before experience the love of Christ for the first time. “That’s what keeps me going,” he said. “Watching people grow, not just in knowledge, but in relationship—with God and each other.”

I was also impressed by how Riley and the ASK leadership intentionally foster community. He shared stories of orga-

nizing outreach events, inviting professors to speak, and collaborating with other Christian fellowships on campus. “We’re not here to compete with anyone,” he emphasized. “We’re here to serve—to help people who might otherwise slip through the cracks.”

“The original vision,” Riley explained, “was to help incoming freshmen hold onto their faith during college. We saw so many students, especially international ones, struggle with loneliness and spiritual drifting. We wanted to build a place where faith could be lived together, not just studied.” This resonated deeply with me. Back home, faith was a communal affair—a shared journey. Seeing ASK Ministries embody this same spirit in a different cultural context felt like finding a piece of home.

A Community in Action

What struck me most about ASK Ministries was their intentional approach to creating Christian fellowship. Weekly Bible studies are the backbone, but the club’s activities don’t stop there. From prayer and praise nights to intimate “Donuts and Devos” gatherings, ASK Ministries makes sure there are spaces for everyone, whether you’re a lifelong Christian or just curious about faith. The club’s outreach efforts are especially inspiring. Riley spoke passionately about ASK’s mission to welcome those who may have never attended church or Bible study. “We want to seek out the ‘one’—the lost sheep, as Jesus said. Our door is open to anyone searching for truth, hope, or a place to belong.”

My Catholic background sometimes made me wonder if I would “fit” in a Protestant-leaning group. But ASK Ministries celebrates diversity in the body of Christ. They collaborate with other fellowships, invite speakers from various traditions, and foster discussions that bridge differences rather than emphasize them. Here, I found



not just tolerance, but genuine appreciation for the richness of Christian faith in all its forms.

Science, Logic, and Faith—In Harmony

One of my biggest fears, shaped by stereotypes and sometimes even my church back home, was that science and faith couldn’t coexist. Yet, at ASK Ministries, I discovered thoughtful conversations that embrace both. Riley pointed out how many members are faithful Christians and passionate scientists. Discussions about logic, the Bible, and the compatibility of faith and scientific inquiry are not just encouraged but central to the club’s ethos.

The Gift of Belonging

Reflecting on my first months in California, I realize how much ASK Ministries has shaped my experience. It’s not just a club—it’s a family. I’ve found friends who pray with

me, mentors who challenge me, and a community that reminds me of God’s unwavering love, even thousands of miles from home.

For any student who wonders if there’s a place for them, especially those with deep faith roots like mine, I can say with confidence: you are not alone. ASK Ministries proves that God provides a home for His children even in the busiest, most diverse environments. My journey from the traditions of Italy to the vibrant, seeking spirit of ASK Ministries has been a testament to the enduring power of Christian community.

So if you’re searching for a place to belong, to grow, and to live out your faith authentically, come and see. As I did, you might find that your most significant worries will give way to the greatest gifts of all: friendship, faith, and family.

Special thanks to Riley Wood, Stephen Lo, and everyone at ASK Ministries for making Caltech feel like home.

Reminiscences of Caltech Rugby

Mike O’Sullivan
Sports/Athletics

I read the article in *The California Tech* about the Caltech Rugby Club with great interest because I organised a rugby team at Caltech about 60 years ago (between 1965 and 1967). Most of the team were foreign graduate students from rugby-playing countries, but a few Americans joined us. We had mixed success but managed a few wins, notably against UCLA. The games against USC and Eagle Rock were particularly scary, as their teams consisted of very large American Football players looking for blood and violence in the off-season. We won a few games we didn’t deserve to because of the athletic ability of Mick Mortell from Ireland—he could kick penalties from 50 meters and more.

The photo below shows the team from 1965. I apologize to those whose names I have gotten wrong.

The Caltech rugby team of

the 1960s enhanced the camaraderie of being a student at Caltech and resulted in some life-long friendships. I hope the 2025 rugby team at Caltech has as much fun as we did.

Mike O’Sullivan (PhD ‘68) is a Professor Emeritus at the Department of Engineering Science and Biomedical Engineering of the University of Auckland in New Zealand.



Back, from left: Peter Dodds (Australia), Jim Fisher (Canada), Jean-Pierre Laussade (France), Jon King (U.S.), Ian Jacobs (U.S.), Tony Collings (Australia), John Gullivan (Ireland), Robert xxx (France), Mick Mortell (Ireland). Front: David McConell (Ireland), John Davies (Wales), Jim McWilliams (U.S.), unknown, Dick Lipes (U.S.), Steve Wolf (U.S.), Mike O’Sullivan (New Zealand). The author would like to add that Dick Lipes has been a generous supporter of Caltech in the intervening years. (Photo: Mike O’Sullivan)

Dr. Lorraine
Lundquist

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she recently adopted—and has long worked on homelessness issues in Northridge, serving as co-chair of the homelessness committee of the Northridge East Neighborhood Council. Her community advocacy includes opposing the Aliso Canyon gas storage facility after its disastrous 2015 blowout and helping launch the West Valley Neighborhood Alliance on Homelessness.

During lunch, she spoke not as a distant expert but as a neighbor, educator, and mom who sends her kids to public school in Council District 12. Her connection to place is per-

sonal, and her commitment to service is clear: “Council District 12 is my neighborhood,” she says. I live here, I work here, and I send my children to school here.”

Throughout the discussion, Dr. Lundquist clarified that the climate crisis is not a distant threat—it’s a local, lived reality. From air and water quality to economic stability and the well-being of children, the impacts are already being felt, especially in communities like Los Angeles. But she also sees LA as uniquely poised to lead.

Why L.A.? Because it has control over its energy production and the political will to transform. She envisions a future where a Green New Deal doesn’t just mitigate the crisis but creates jobs, reimagines

infrastructure, and uplifts communities. Her vision is bold but grounded in data and hope.

Because of her activism and community work in sustainability, Dr. Lundquist was encouraged to run for LA City Council in 2020 when the incumbent had resigned. She spoke of the challenges of running for office as someone outside the traditional political mold. “I’m not taking corporate PAC money,” she said, highlighting her grassroots approach. She contrasts herself with career politicians and emphasizes values over vanity. Her campaign was powered by volunteers, educators, students, and community members—people who believe that government should be deeply connected to those it serves.

Despite being new to political campaigning and running for office, Dr. Lundquist won in the primaries—something no one expected her to pull off—and continued her election to the general election against one other candidate. Though she did not win the LA City Council seat, she ran a tight campaign and a close election—earning 49.4% of the vote.

As someone who had the privilege of attending this lunch, I left feeling both sobered and inspired. Dr. Lundquist doesn’t sugarcoat reality, but she doesn’t leave you in despair either. Her life proves that science and activism can coexist, that parenting and politics can motivate each other, and that one person can indeed have many ways of serving the

common good.

Her closing message was simple but profound: “We need people-powered governments.” She continues to serve her community through her work at Cal State Northridge as well as her position as Chair of the Board for LA Forward, a local community activist group. She encouraged us to also get involved in community groups trying to make a difference, and emphasized the best way to counter authoritarianism is for all of us to build community and stay connected. In a time when so many are discouraged by politics, her call to action rang especially true. It reminded us that leadership isn’t about celebrity or soundbites—it’s about community, courage, and commitment.

I Have Failed

Camilla Fezzi

Inner Voices

I had my mouth pressed into the sand. I was breathing hard—desperate, shallow, uneven. I could feel the grains entering my nose, throat, and lungs. Somewhere nearby, I heard the rapid thudding of hooves, the panicked exhale of a frightened horse. For a moment, I couldn’t remember where I was. I couldn’t piece it together. The memories didn’t come in order; they arrived like broken glass, sharp and disjointed. My helmet. My shoulder. The ground. Pain. Sharp pain. A blinding throb in my knee.

I didn’t mean to cry. I hadn’t decided to. I don’t cry without thinking about it first. I always weigh it, time it, and calculate whether I deserve to cry. But the tears came anyway, without warning, without permission. They ran down my cheeks, cutting through the sand, sweat, and blood. I was still lying there, still on the ground. I could feel the tears tracing the freckles on my face.

Wake up, Camilla. Wake up. Get up. You must keep going.

But I couldn’t. Something was wrong with my knee. I tried to move, but I couldn’t. I opened my eyes, and it all came back. I had been jumping; I was competing. I had gauged the distance and positioned my legs. Then—nothing. I must have fainted. I don’t recall the fall or the impact. Just darkness, followed by this: the immense weight of the earth pressing against me and the distant sound of Deesse’s hooves.

Panic.

I swallowed the tears. I looked up. She was limping. More panic. And yet I didn’t move. I couldn’t. What was the point? Why try to get up again? Everything hurt. I was tired. Not just my body—my soul. I was drained, empty, done. But then she turned. She looked at me. And she walked toward me.

She was scared. Her eyes were asking me something—Are you okay? What just happened? I wanted to tell her that I didn’t know. That I was scared, too. I was terrified.

But I had to stand for her.

Get up for her.

I got up. I started running. Somehow, I ran. The adrenaline must have carried me. I couldn’t feel my knee anymore. I couldn’t feel my shoulder, the blood from my nose, or the cracked helmet on my head. I just ran. I saw the reins tangled around her leg. I bent down to

untangle them, and the pain came rushing back—my knee screaming at me. But I didn’t care. She came first.

I whispered to her. I apologized. I told her I was sorry, even though I didn’t know for what. I led her out of the arena and handed her to my coach. I was shaking. She was fine. She hadn’t been hurt. That’s all I needed to know.

And then I was surrounded. People. Voices. Strangers.

What happened? What’s going on? Why are they looking at me like that?

I’ve always had everything under control. Always.

“Are you hurt?” someone asked. Their voice felt far away.

I was still trying to process it. “What happened? What the hell happened?”

Pain? No, I didn’t feel pain. I don’t allow myself to.

“What’s your name?”

“Camilla.” The word felt unfamiliar, like it belonged to someone else.

My knee hurts. Sharp and deep. I took off my helmet. It was cracked clean through.

“Deesse? How is she?” I asked.

“She’s okay,” my coach said. “But what about you?”

“I’m fine.”

I wasn’t.

I tried to walk away. My leg gave out. They stopped me.

Ice. Tape. Medical terms are thrown around like darts.

X-rays. Ligament. Tendon. Dislocation.

Stop.

I screamed. Loud. Raw. The sound surprised even me. That wasn’t me.

I didn’t want to hear any more. I didn’t want to know. I just wanted to rewind the day and sleep.

But I couldn’t.

I had fallen. And I didn’t know how.

Flashback

Before that day, my descent had already begun—just more silently. I walked across campus with a backpack feeling heavier than it should. My legs ached, and my mind was cloudy. I was headed to another office hour for a class I felt ill-equipped for. A class that I had no prior knowledge of. A class that had consumed me completely. Fear gripped me—of failing and not comprehending, of not measuring up. My headphones rested on my ears, but no music played; my thoughts drowned out any potential sound. They spiraled endlessly, a tempest of unfinished tasks, looming deadlines, unread chapters, and unresolved equations. I moved through space, yet I wasn’t present.

My body operated on auto-

pilot while my mind wandered elsewhere, ensnared in pressures, expectations, and the anxiety of falling short of who I believed I should be. A message from my mother appeared. Sent at 3 a.m. her time, I glanced at it, feeling a pang of guilt. I didn’t open it, just as I hadn’t opened the last few. “Mom, I’m sorry,” I thought. “Right now, I can’t accommodate anyone—myself included.” I arrived at the classroom, sat down, and opened my notes, uncertain when I would complete them. I never do. There’s always another assignment, another test, another expectation to meet.

Live in the present, I told myself. *Hic et nunc*. But I hadn’t looked in a mirror in weeks. I’d rush from class to riding, from labs to events. I was always moving. But more than that, I was constantly proving.

That I was smart.

That I was strong.

That I could do it all.

But sometimes I looked at my notebook and saw scribbles—nonsense I had written while drifting off in class. I had fallen asleep mid-sentence. I used physics textbooks as pillows. I had turned Maxwell’s laws into lullabies in the library.

Around me, people smiled and laughed. I couldn’t remember the last time I’d smiled for real. The last time I hugged someone and felt it. I needed someone. I needed warmth. I needed to stop.

But I didn’t.

I didn’t even know what day it was. But I knew my schedule. I knew my horse’s rhythm. I knew the exact time of every lecture, every lab, and every deadline.

People told me I was inspiring. I smiled, awkward and uneasy. If I were their role model, they would be in trouble. I felt like I was slipping.

I hadn’t eaten. I didn’t sleep. I couldn’t find my hairbrush. My room was chaotic—piles of clothes, stacks of papers, dishes I didn’t remember using. I tried to clean, to find control. But inside, everything was unraveling.

I opened my laptop. Then my iPad. Then a textbook.

“Camilla, go to bed,” I told myself.

But I didn’t.

I kept going.

Just one more hour.

Just one more problem.

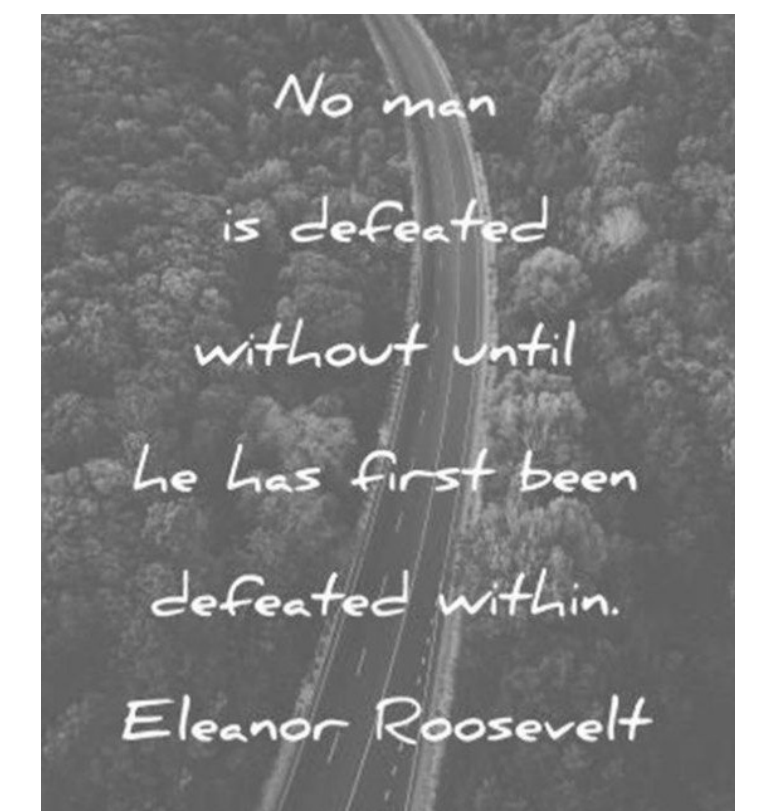
Just one more paragraph.

I was terrified of the class. I couldn’t understand something. That never happened.

I searched through manuals. Websites. Forums. I needed to understand.

And then the test came.

I told myself that this time, just being okay was enough.



But it wasn’t. Not for me. I looked in the mirror. It was late. Or early. I don’t know. My eyes were tired. My face was pale. There were strands of hair on the sink. I was losing hair. I tried to wipe it away. I kept cleaning, wiping, brushing, and organizing. Trying to fix something. But I didn’t recognize the person in the reflection. I turned away. Back to work.

Now and Today

Then, I fell. And everything stopped. It’s only been a few days, but my body echoes the impact. I’ve watched the video of my fall too many times, trying to analyze it the way I’d explore a physics problem or a math proof. I wanted there to be an explanation—a cause. Eventually, I found it. I passed out. I blacked out on a horse. In the middle of a jump. In the middle of a competition. I had seen the distance. I had felt the rhythm. I had given the signal. And then—nothing. I lost consciousness. My body slumped forward. I collapsed onto Deesse’s neck. And then I dropped to the ground like dead weight.

All because I pushed too hard. All because I didn’t stop. Could I have done more? No. Should I have done less? Yes. But I didn’t know how.

My knee is bruised and aching. The ligament might be sprained. I don’t know yet. I haven’t taken anatomy. That’s for med school.

I cry every day. Or at least I

did. But now the tears are gone. And still—I ride. The doctor told me to rest. But I don’t. I can’t. I risk more damage every day. But I don’t stop. I titled this essay “I Have Failed” because it’s the truth I’ve been avoiding. I tried to prove that it was possible to pursue two lives at once—that I could be both a student and a professional league 1 athlete, that I could balance Caltech and competition.

But I couldn’t. I broke. My academic life seeped into everything, consumed me, and cost me the one thing I thought was safe—my time with Deesse, my riding, and my peace.

A single assignment. A single string of characters. That’s all it took to push me over the edge. That’s all it took to risk my knee. To lose sleep. To lose myself. To cry until I had nothing left. For a string. If my ligament had torn... If I hadn’t stood up from the sand... If I had stayed down... I wouldn’t have written this, and I would not be here. But I did get up. And I’m still here. I’m still scared, terrified. I still see that distance. And I still remember falling. But I got up and do not know how to keep up. Maybe I will—I do not know. Stop me one day and tell me to live.

The science of thought: philosophical insights into scientific practice

Hic et Nunc: Presence Under Pressure at Caltech

Camilla Fezzi
Column

Introduction

Amid deadlines, data, and delayed dreams, it's easy to overlook the fact that life doesn't wait for us to solve every problem. At Caltech, where ambition surrounds us and the future feels constant, the present can easily fade into the background. Yet beneath the weight of equations, lab reports, and sleepless nights lies a truth waiting to be unearthed: *hic et nunc*—"here and now." This simple, ancient Latin phrase serves as a profound reminder that our only true existence is in the present.

Embracing *hic et nunc* means resisting the urge to fixate on what's ahead. It means lifting your gaze from your laptop at 2 a.m. in the library and recognizing that you're among individuals who are equally alive, fascinated, fatigued, and passionate as you are. It's about taking a deep breath under the olive trees on Moore Walk, allowing the sunlight to illuminate your thoughts. It's about being a student—fully, freely, and fleetingly—in this singular, unrepeatable moment moment.

This essay examines the concept of *hic et nunc* in philosophy and its direct connection to the Caltech experience. By reflecting on personal instances where being present overcame pressure, I aim to reveal that recognizing the present is not a diversion from our objectives but potentially their most significant basis. It's not only about valuing the journey but understanding that the view is all we truly possess. (Although I must admit, I often fail to do this.)

What Does *Hic et Nunc* Really Mean?

Hic et nunc—"here and now"—may seem like a mindfulness catchphrase, yet its philosophical roots extend back centuries. From Roman Stoicism to contemporary existentialism, thinkers have encouraged us to focus on the present not just as a source of comfort but as the sole realm where genuine meaning can be fully realized.

Seneca, a prominent Stoic philosopher, cautioned against living as if we have infinite tomorrows: "It is not that we have a short time to live, but that we waste much of it." For him, the present was not merely valuable; it was imperative. He asserted that to live well, one must be intentional and aware of how each moment is utilized.

Martin Heidegger expanded on this idea. In *Being and Time*, he characterized human existence as one of "thrownness"—we arrive in a world we didn't choose at a time we didn't select, constantly progressing toward our own mortality. Rather than lament this reality, Heidegger maintained that this awareness should push us toward authenticity. He wrote that "being-toward-death" grants life its urgency. When we acknowledge that our time is limited, we cease to delay living.

However, as students engaged in science and innovation, we often remain in the not-yet. We are trained to think in a linear fashion: plan, produce, achieve. Yet philosophy prompts us to contemplate a more circular truth: the future never genuinely arrives—it consistently transitions into the present. If we aren't attentive when this happens, we forfeit the only life we have.

The Caltech Paradox—A Place of Dreams, a Struggle to Be Present

Caltech is a place where the future is sacred. Research here is not just about solving today's problems—it's about shaping what will come decades from now. That's what makes it magical—and, sometimes, overwhelming.

The culture of Caltech is intense. We push ourselves and each other to the edge of possibility. We joke about "the Caltech workload," but beneath the sarcasm is a real weight. There are weeks when the days blur together, when your entire existence starts to feel like a series of problem sets and lab reports, when the only time you pause is from exhaustion, not intention.

And yet, in that very intensity lies the paradox: while preparing for the future, life is happening all around us. One night, I sat alone in my dorm room, surrounded by stacks of notes and the quiet hum of my desk lamp. I had been working on a particularly brutal physics derivation for hours, chasing an elusive solution. At one point, I leaned back in my chair—not in triumph, but in surrender—and noticed how the light folded across my desk. I could hear someone laughing faintly in the hallway. My chest rose and fell. It was a small moment, but it felt like a door opening. I was here. I was alive. Not later. Now.

Simone Weil once wrote, "Absolutely unmixed attention is prayer." That quote has stayed with me. In a place like Caltech, attention is often seen as a tool for productivity. But what if it's also a form of reverence? What if paying attention to the present is not just a way to work better, but a way to live more fully?

Despite the demands, Caltech has given me moments I will never forget—moments that pulled me back into the immediacy of life.



Image from "Here and now, we say. But does modern physics have a problem with that?" By Massimo Pigliucci, Medium, Jan 17, 2020.

One evening, after a brutal week of midterms, a few of us dragged ourselves out to the lawn behind the Caltech Hall. It was after midnight. We lay on the grass, looking up at stars that had traveled across space just to reach our eyes. We didn't talk much. We didn't need to. In that stillness, I felt something I hadn't felt in weeks: peace. The stars didn't care about our grades or our deadlines. They just were. And for once, so were we.

Another time, I was walking back from the lab at an absurd hour—maybe 3 a.m.—and I passed by Turtle Pond. There was a subtle mist over the water, and the campus was utterly silent. I stopped, not because I had to, but because something told me to. I just stood there, watching the water ripple slightly in the wind. Knowing I'd forget this moment if I didn't live it. That's what *hic et nunc* means to me—not a grand epiphany, but a quiet acceptance of presence.

Kierkegaard once said, "Life can only be understood backwards; but it must be lived forwards." That line captures the strange tension I feel every day here. We always try to make sense of things after they happen, but we must live them be-

fore understanding them. The only way to do that honestly is to be present.

Choosing to Be Here

To live *hic et nunc* is not to abandon ambition—it is to ground it. It is to understand that every test, every sleepless night, every breakthrough, and every breakdown are not stepping stones to life—they *are* life. It's not about romanticizing difficulty, but about seeing its humanity.

Alan Watts once wrote, "This is the real secret of life—to be completely engaged with what you do in the here and now. And instead of calling it work, realize it is play." That doesn't mean we won't struggle. But it means we can struggle with awareness. With presence. With grace.

Caltech is not just a place where I study the future—it's where we should slowly and painfully learn how to return to ourselves. To feel the warmth of sunlight on our faces between classes. To laugh with someone over a coffee. To be here.

As I continue my journey, I know the pressure won't magically disappear. But I carry a small, repeating mantra: *you are here*. And that is enough. That is everything.

ASCIT BoD Meeting Minutes May 25th 2025

ASCIT Secretary News

May 25th, 2025 | 12:15pm – 2pm
Hameetman Conference Room
Members Present: Ashlyn, Elisa, Bisrat, Parker

President's Report (Ashlyn):

- Discussed Sanctuary Campus
 - Summary of President's response: We already follow most of the policies of a sanctuary campus, but we don't call ourselves that because it's dangerous with the current administration.
 - Immigration chat is coming soon.
- Discussed ASCIT panel with Isabelle for Orientation
- Coming up: IHC and ASCIT Mixer.

V.P. of Academic Affairs (Angie):

- Upcoming: ASCIT teaching awards is June 6th, 6-8pm

V.P. of Non-Academic Affairs (Elisa):

- Committee heads have been announced.
- Met with Felicia Hunt about rotation, will send dates to Ivy.
- Upcoming Discussion of Security Cameras
 - Need to make sure they are used for safety, not to monitor conduct.

Director of Operations (Hannah):

- No updates

Treasurer (Bisrat):

- Update on current situation with club funding

Social Director (Ivy):

- ASCIT BoD needs to be

on-campus by September 24th for Orientation

- Date of Midnight Donuts: June 11th
- Discussed upcoming SURF Mixer
- Discussed upcoming selection of ASCIT formal venues

Secretary (Parker):

- Discussed new guidelines for Announcements
- Collecting photos for Olive Walk portraits

Symphony

Raquel Maldonado Inner Voices

While the cloud condenses anger, I rain tears

While the ant walks to its destination, I fly freedom

While the apple sweetens the tongue, I salt the sea

While the camellia opens its buds, I pollinate truth

While the virtue of the corner dies, I insist on being reborn

While the beauty of the day streaks, I fall asleep in thoughts

While the cat purrs, I mute my convictions

While there is a wall, I expand universes

While the melody succumbs, I make love triumph

While the sun warms the soul, I moonlight the spirit

While the water gushes, I solidify ideas

While the stone remains, I grow rapidly

While the mountain plays being, I drift with absence

While conversations explode, I dance with silence

While the thread is woven, I flow toward the horizon.

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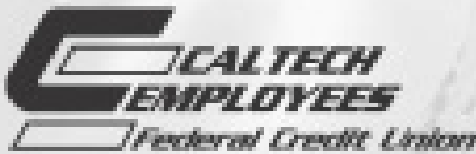
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QUESTION
THE QUAIL

Awoken from slumber, the QUAIL is hungry for your questions. Feed the poor aminal here:



Music in a Temple of Science

Theodore Havel
Culture

The Mount Wilson Solar Observatory was founded in 1904 by George Hale, who was also a trustee of Throop Polytechnic Institute (which later became Caltech). The first telescope built on-site was the Snow Solar Telescope in 1904, followed closely by the 60-foot Solar Tower and the 60-inch telescope, both of which were completed in 1908. Hale hosted many famous individuals during this time, including Andrew Carnegie in 1910 and Harlow Shapley in 1914. Carnegie was the main financial supporter of the observatory from its inception in 1904, and Shapley was an astronomer who discovered our position in the Milky Way galaxy using the 60-inch telescope.

Funded by John Hooker and Andrew Carnegie, the 100-inch Hooker telescope began construction in 1906, but was not completed until 1917. With its completion, a new dormi-

tory was also built. Many famous scientists traveled up the mountain, including Edwin Hubble in the 1920s and Albert Einstein in 1931. In 1924, Hubble used the 100-inch telescope to show that there are other galaxies beyond the Milky Way, and in 1929, he proved that the universe is expanding.

Eventually, the 100-inch telescope became obsolete for deep-sky observation due to the light pollution from the Los Angeles area, leading to the decision to convert it into a public-use viewing telescope. It is currently used for public outreach. Mount Wilson Observatory started hosting concerts in the 100-inch dome in 2017, and additionally, hosts lectures and telescope viewings.

Every summer for nearly a decade, the Mount Wilson Observatory has hosted musical events in the 100-inch dome. I've attended four, and the acoustics are amazing. If you attend an event, be prepared for a mountainous drive and wear comfortable shoes, as the



The author, at around age 12, in front of the 100-inch dome. (Photo: Theodore Havel)

walk from the parking lot to the dome is moderate. (Depending on the time of year, be prepared to layer your clothing.) Visit www.mtwilson.edu/events to view information

about this summer's series and other events hosted on the mountain. "No creative work, whether in engineering or in art, in literature or in science, has been

the work of a [person] devoid of the imaginative faculty." — George Hale
Have a great summer, everyone!



A sign found inside the base building of the 150-foot solar tower, another early observation structure. (Photo: Theodore Havel)

Caltech Wildlife: Juvenile Panel Interviews

Jieyu Zheng
Column

As Commencement draws near, your nerdy wildlife columnist decided to explore a timely topic: what does "graduation" mean in the animal world? How do young creatures transition out of their juvenile phase—and what counts as "adulthood"?

This week, I interviewed five spring juveniles: a desert cottontail bunny, a Canada gosling, a young fox squirrel, a dark-eyed junco fledgling, and a female adolescent coyote. Below is an excerpt from our conversation.

JZ: Tell us a little about your experience as a juvenile this spring.
Desert Cottontail Bunny (DCB): When I first started roaming, I saw a lot of statues of my kind around Easter—especially near those red mushrooms with white dots. My parents told me those mushrooms aren't edible, though. I think it was an adult warning.

Canada Gosling (CG): My siblings and I were born at Huntington Gardens. I haven't been to Caltech yet, but my parents often say the ponds there are too small for younglings, so we are not missing out much. Still, as a San Marino native, Caltech feels like a safe choice for college.
Young Fox Squirrel (YFS): Honestly, spring doesn't feel that special—my siblings are born year-round. But there's always something to climb, chew, or chase!
Dark-eyed Junco Fledgling (DJF): We're high-elevation birds, and my family used to only breed in Pasadena during winter. In the past decade, many of us juncos have adapted to city life year-round. For me, fledging into the Red Door courtyard was dazzling. There are always bread crumbs falling from the tables—but navigating through human legs takes real flying skills.
Female Adolescent Coyote (FAC): I was born last spring and stayed to help my parents during this year's

breeding season. We patrolled Caltech at night and scent-marked on poles—my parents say it's our backyard, and we need to protect it.

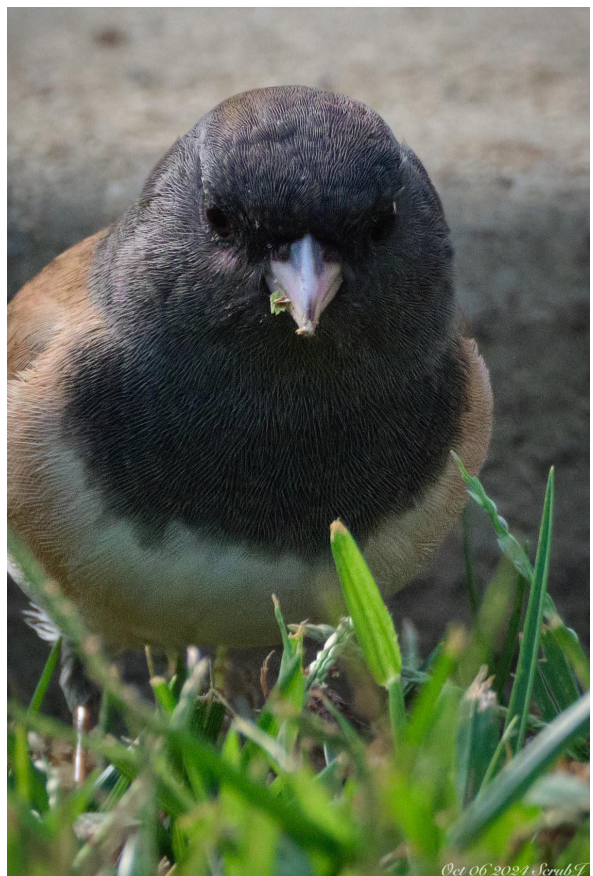
JZ: What counts as "adulthood" for you? What's your graduation moment?
DCB: Probably when I'm allowed to join the midnight parties at the undergraduate houses. My parents are nocturnal and always say young bunnies should go to bed early. I can't wait to stay up grazing under the stars!
DJF: The first skill I learned was puffing up, chirping non-stop, and begging for food. These days, I try to scavenge for my own meals—mostly from Caltech dining halls. I think when you start sourcing lunch solo, that's adulthood.
FAC: Coyotes don't shy away from sex ed. One January night, my parents mated under the moon in front of Beckman Auditorium—just a proper ceremony for a wedding cake. I watched, of course. They tied (note from JZ: this

refers to the canine copulatory tie formed from the mating pair) for half an hour, and no Caltech students noticed. Except you, I guess, filming it all with no shame! Now that the pups are born, I help fetch food. Once they're old enough, I'll leave to find a territory with other young singles—just like going to grad school. That's when I'll graduate from my adolescent duties.

JZ: What's the hardest part about growing up?
CG: At first, people cooed over us when we waddled into the pond—"aww, so cute!" But that attention fades when our chirps gradually grow up to become honks. They would gaze at us angrily with "eww," especially when they stepped in our poop. Hey, at least we eat only grass—our droppings aren't that bad.
YFS: Learning what is climbable is tough! I once tried scaling the wall of Baxter. My paws are barbed forward, so climbing down was a nightmare. I froze, terrified, but my mum cheered me on. (Dad was

nowhere to be found; male squirrels never take care of their family.) Eventually, I turned around and made it. Adult squirrels must master the art of climbing, jumping, and cracking "squirrel-proof" bird feeders. It's a full curriculum.

JZ: Any advice for Caltech students who graduate this season?
DCB: Always keep your ears up and listen to what others have to say.
CG: Be a fierce version of yourself when you go out into the world. That's what my parents always say. Don't worry about being liked—just honk with purpose.
YFS: You'll fall. A lot. But every branch you slip from teaches you where to land next.
DJF: Go to seminars for free food. Everyone scavenges in grad school these days.
FAC: Learn from your pack, but don't be afraid to leave when your time comes. Oh, and learning how to jaywalk is useful in California.



Giving the Planet a Break with Dr. Daniel Lewis

Ryan Leal
News

“My mom used to drag us out in the middle of the night to go watch the volcano when it would erupt. At like 3 am, she’d drag us out, get in our VW Van, and travel up the hill to the volcano,” Lecturer in History Dr. Daniel Lewis explains of his childhood in Hawai’i. “Right now, it’s erupting in these thousand-foot plumes. Now would be the time to go—it’s mind-blowing.” His time in Hawai’i left him with a deep appreciation of nature and countless unique stories.

“I tell a story about how I almost went extinct myself when this tsunami hit the Big Island, not six months after we got there. It killed 63 people. My dad worked day and night, sawing off people’s legs and saving people’s lives and losing other lives.”

Dr. Lewis’ CV could double as an extensive review of the most important work in environmental, technological, and scientific history curation in the past three decades. He has worked as the Dibner Senior Curator for the History of Science and Technology at the Huntington Library since 2006, in addition to working with the Smithsonian, Oxford, Honolulu’s Bishop Museum, and many other institutions throughout his career. These institutions vary in their curatorial culture, particularly in their choice of precautions.

“What was great about being in Oxford was that with the collection I was using, I was completely turned loose to use on my own. I was free to do whatever I wanted with it,” noted Dr. Lewis in contrast to some other institutions’ curatorial standards. “Everything is very carefully individuated in [some parts] of the U.S. You can’t use pens, you can’t lean on the edge of a table with a manuscript there cause you might bend it, you can’t lick your fingers and turn the page... At [one institution], they do this weird thing where they let researchers do their own photocopying. That’s very handy but it just wears the crap out of the materials, because people kind of move fast and it kind of wrecks the material. So the collections have this kind of soft, kind of worn-out feeling to them. In [another place]... they make you wear these white cotton gloves. It’s been shown over and over again that you don’t need to wear gloves when handling paper materials,” he says as he starts to touch the corner of my notepad. “You lose the tactility you need to be able to do this sort of thing,” he adds, flipping through my notepad pages, leaving no creases.

The curatorial community handles vast collections of historically significant works in environmental science, biology, and politics, among other fields. Countless first-hand documents each provide glimpses into a particular point in history, but cumulatively, they can paint a rich picture of a period. For Dr. Lewis, there has to be something predictive about the study.

“History has to be bent towards something, otherwise there’s no... set of outcomes for it. So that we can reach new conclusions, otherwise it’s just antiquarian, static... It’s just a curiosity. History has to be practical... There have to be actionable outcomes. And that’s the case for environmental history in particular because it’s such an urgent topic. There’s so much that we need to tend to, paying attention to the outcomes becomes really important.”

There are plenty for whom history is just a curiosity. “Some people go because they’re just obsessed with the facts. We call the people interested in the Civil War ‘Bullet Counters.’ What they’re really interested in is how many shots were fired in the battle of Antietam, or how many Confederate losses occurred during a particular year in the U.S. Civil War. You know, that’s a kind of antiquarian history that is kind of present-minded.” When Dr. Lewis is on the lookout for new curators, this is something he steers away from.

“One of the things we don’t want when we hire is someone so obsessed with a topic that they can’t get out of it. If we hire an archivist to process letters from literary collections from the 18th century, we don’t want someone so interested in a topic that all they want to do is read the letters and never get the work done. It’s kind of an occupational hazard, if you’re coming into the field and you’re interested in topics that the institution collects. We don’t want someone who’s so interested they’ll get bogged down.”

But environmental history lends itself well to the more future-minded. “Environmental history is designed to help us learn from mistakes we’ve made. If you think about the so-called ‘introduced species,’ and the fact that things have gone wrong. This should be some kind of an object lesson to us about trying to do that in the future.”

Dr. Lewis teaches about ‘introduced species’ out of his 2018 book *Belonging on an Island* in his History of Extinction (HPS131) course at Caltech. In particular, some birds were introduced to Hawai’i for their visual and audible beauty, but sometimes with

the intent to control pests. The long-run effects of the introduction of these species to new communities is varying and often damaging in unexpected ways. But “Belonging on an Island” wasn’t just about birds: the book touches on what it means to belong in Hawai’i for humans as well.

“I kind of made [the topics of birds and humans] connect because that’s what seems important about the narrative. The cultural parts are important. When I was writing this book about belonging in Hawai’i, I really just wanted to write a book about birds and tell historical stories about the people interested in birds. But then I thought, I have an obligation. It was very obligation-driven. I have an obligation to talk about humans here because I can’t just ignore that. Because the topic is so fraught in a place like Hawai’i. And I did what I think is a really imperfect job talking about the belonging aspect in that book.” He laughs as he tells me: “But I care more about the birds than the people, is the absolute truth of the matter.”

Being a historian, Dr. Lewis has explored various cultures and communities in great depth. With this study comes fresh perspectives on American culture. “This is a very gross generalization, but Americans’ obsession with wealth... [is] overweening. [It’s] just everywhere. So when you go to other places, that isn’t so much the emphasis... I spent a month in Tanzania years ago and climbed Kilimanjaro, which was super fun, and when I got back, I walked into the supermarket and I’m like, why do we need 50 kinds of cereal? That’s so ridiculous; it seems so ridiculous. But after a few weeks, it kind of fades away, and you’re back in your normal life, and it doesn’t seem ridiculous. But things take on a different kind of weight when you’re not distracted by all of these [consumerist] systems,” Dr. Lewis says about the way the U.S. consumes and produces. He is also concerned about the way in which these forces damage our environment. “It just seeps in like a cancer, like some sort of oily substance. And I don’t know if there’s a way out of it.”

I ask him if there are any particular experiences in life that have kick-started this perspective.

“[A book called] Merchants of Doubt, by Naomi Oreskes and Erik Conway... It’s all about how these corporations... have strategies to inject a little bit of doubt into a conversation, whether something is really the way it is. So the tobacco companies did this by saying, ‘Look, here’s some evidence that’s equivocal. Well,



Not just a Lecturer in History at Caltech, Dr. Daniel Lewis is also the full-time Dibner Senior Curator for the History of Science & Technology at the Huntington Library. (Photo: Dana Barsuhn)

it might be that cigarettes aren’t that bad for you—look at this evidence.’ You don’t have to make a watertight case to persuade that something isn’t the way it is, you just have to introduce some doubt into it... George Bush once said he was asked about evolution, and he said ‘teach the controversy.’ There’s [no controversy] about whether evolution or creationism is correct; evolution is the correct version of the story... So the comments like that, the sort of rhetorical ruse, introduce doubt... I thought, ‘That is pernicious.’ That is an example of big corporate interests leaning in hard over long periods of time to persuade or at least interject a notion of doubt into people’s minds about things that are bad for the environment. So that was kind of a watershed moment for me, that particular book.”

His time away from the U.S. was a substantial influence as well. “I think when I was... in my early 20s in Africa... looking back on my life, I think, oh, what was that about? It was about a very different way of living. People in Africa live very very differently... they’re much more resource oriented than we are here... their familial relations are everything, their communal relations are everything, their tribal relations are everything, and they

have much more importance in their daily lives than some silly credential, which doesn’t really mean much to them,” says Dr. Lewis as he starts to ponder how he came to these views of the world.

“I think you realize things as you go through your life somewhat belatedly, like, ‘Oh yeah,’” he laughs. “Rather than having an ‘ah-ha’ moment. I think things dawn on you, that’s often how it works.” Even if certain perspectives come with time, Dr. Lewis is aware of others that come fast when travelling. “I mean it’ll kill your prejudices to go to other places, and it’s so good for that, it’s so good for that. Everybody should travel the world, you know. You’re just a better citizen of the world if you understand that things are different elsewhere, and a lot better in a lot of ways.”

Even if there isn’t a way out of it, Dr. Lewis has come to terms with the possible fate of our world.

“[The possible fate of humanity] is not necessarily a bad thing. So I’m writing a book on the history of extinction right now, and one of the last things is what happens in the future after humans are gone. And I find that very interesting indeed. It’s a chance to give the planet a break.”

Science in the Vatican

Theodore Havel
The Outside World

On April 21st, 2025, Pope Francis passed away. His successor is Pope Leo XIV, whose papacy began on May 8th, 2025. Pope Leo was a close advisor to Pope Francis.

In the summer of 2023, I attended a lecture and dinner at Mt. Wilson given by Brother Guy Consolmagno, Director of the Vatican Observatory in Rome, which has been in oper-

ation since 1930. The Vatican Observatory is also affiliated with the Vatican Advanced Technology Telescope in south-east Arizona, operated in partnership with the University of Arizona in Tucson. Among topics ranging from technical to philosophical, Brother Guy talked about the idea that science and religion are not mutually exclusive, and that historically, many members of the clergy have also been scientists.

“Religion needs science to keep it away from supersti-

tion...Science needs religion in order to have a conscience,” he said in a talk in 2006.

Pope Leo was born Robert Prevost in Chicago and is the first American-born pope. He received a B.S. in Mathematics from Villanova University in Pennsylvania and a Master of Divinity from the Catholic Theological Union in Illinois. Throughout his studies, he taught physics and math at a high school in Chicago. He joined the priesthood in 1977.

Pope Leo is currently the most prominent clergy mem-

ber with ties to science.

And now, time for a Pope Quiz! (No cheating!)

- 1) Who was the oldest pope?
- 2) Who was the first pope to be elected by the Church?
- 3) What was the shortest papal tenure (extra credit if you know why it ended)?
- 4) Why didn’t Pope Francis have a number after his name?
- 5) What were Leo XIV’s first public words as pope?

(N.B.: Answers to the quiz are located on page 9)

Silk Installation at the Huntington Reflects on a World ‘Without Us’

Emily Yu
Culture

Looking down from a plane, Wang Mansheng felt uneasy about how much of the Earth is now covered by roads and buildings. Reflecting on this environmental change, he stated, “Pure nature is now unattainable except through my imagination or brush.” His new works at the Huntington put that imagined nature on display.

Earlier this month, *Without Us*, an installation by Wang Mansheng, opened at the Huntington’s Chinese Garden art gallery, the Studio for Lodging the Mind. Composed of 22 immense hand-painted silk panels, the installation blends contemporary art with classical Chinese perspectives on nature, inviting viewers to consider the harmony of the natural world.

Wang Mansheng was born in Taiyuan, Shanxi Province, China in 1962, and is based in New York. His work combines modern artistic approaches with traditional Chinese painting. At the Huntington, visitors can

find his designs throughout the Chinese Garden, including two carved pictorial tiles that flank the entrance to the Studio for Lodging the Mind.

In *Without Us*, Wang portrays detailed landscapes of plants, rocks, and water—a vital resource for all life that is increasingly endangered by human activity. He also paints three types of animals: silkworms to represent insects, ducks to represent bird life, and rabbits to represent mammals. Wang stated, “These and many other species inhabit the Earth along with us humans. They have the right to share the water with us. But our waste and pollution threaten life on Earth, including ours.”

During the year he spent working on the project, Wang used approximately 30 different brushes, including some he made himself. Using reeds that grow in the Hudson River near his home, Wang combs out the seeds and then trims the reed flowers when they bloom in autumn. He selects individual reeds or ties several together to create brushes of different sizes. Some are used for fine de-

tails, while others are used for painting broader areas, such as the surface of a rock.

A close look at the pine tree in the exhibition reveals visible brush marks. To emphasize the tree’s age and texture, Wang painted the bark using a medium-sized reed brush. He applied additional layers with a larger reed brush to enhance the detail. “I love using these handmade brushes because they create natural, sometimes rough, but powerful and expressive marks,” stated Wang. “Manufactured brushes often produce lines that are too smooth, almost too perfect. The reed brush has more character.”

In addition to using bottled ink and Chinese and Japanese ink sticks, Wang also creates his own ink using black walnuts, which are commonly found in the Hudson Valley. He gathers them in the fall once they have matured and changed color. The ink is stored in jars, where it darkens over time. By mixing older and newer inks, he can obtain various shades of brown.

Suspended from the gallery ceiling, the silk panels of *With-*



Wang Mansheng, *Without Us*, 2024-25. (Photo: The Huntington Library, Art Museum, and Botanical Gardens)

out Us invite viewers not only to view but move immersively through the landscapes. As they wander among the painted mountains and streams, the translucent silk allows silhouettes of other viewers to become momentarily part of the scene, blurring the boundary between human presence and the natural world.

Alongside the paintings, the exhibition features excerpts

about the relationship between humans and nature from eight ancient poets and philosophers, including Laozi, who wrote, “In governing people and serving Nature, nothing is better than frugality.” By placing these words among the artwork, the installation encourages visitors to reflect on their relationship with nature and perhaps find echoes of their own thoughts in writings from centuries past.

Artificial Intelligence: Our Modern Promethean Fire

Raquel Maldonado
Opinion

It is well known that A.I. companies have red-teaming, RLHF, and guardrail teams specialized in protecting against hate speech, bomb-making, or any crazy idea that pops into a person's destructive mind. However, even with protection, the A.I. can be "tricked" and bypass the blockade, creating monstrosities. If there are psychopathic humans capable of manipulating and convincing crowds, just imagine a tool built with data from the entire internet.

A.I. models often contain hidden biases because they are trained on human data. Let's take an example: When we do a job interview for a company and the HR system is A.I.-powered, this A.I. will probably reproduce the environment in which we live. So, white men will have more opportunities and access to these jobs. Women, black people, and immigrants will not be in equal competition. There are real cases of a large company whose A.I., upon detecting the phrase “Women’s Chess Club” on a resume, automatically rejected the candidate.

Seth Lazar, an Australian philosopher, professor at the Australian National University, and research associate at the A.I. Ethics Institute at the University of Oxford, studies ethics and political philosophy of artificial intelligence. He argues that we live in an algorithmic city. In his “Governing the Algorithmic City,” an essay published in *Philosophy & Public Affairs* earlier this year, Lazar proposes the concept to describe how algorithms mediate social, economic, and political relations and how technology is reshaping societal structures. The city is not a physical space, but a social and political environment reconstructed from computational logic. Artificial intelligence is a magnifying

glass for society; the collective mind is a social mirror.

Technology grows geometrically, but our consciousness, values, and notion of the collective grow arithmetically (in a philosophical sense). However, even with debates on paths such as transparency in training data, international regulation (to prevent the proliferation of nuclear weapons, for example), user education to improve critical thinking, ethics, emotional intelligence, and self-awareness, the challenge remains more complex. If the tool is trained in human biases, it is contradictory in itself; it carries light and shadow, reason and irrationality, compassion and cruelty.

If we model a “moral” A.I., it can be authoritarian, elitist, or disconnected from reality. If we model a naive A.I., it can be easily manipulated or fail to understand complexity. We are then faced with a paradoxical question. After all, who owns the companies? Is the focus on improving humanity or on accumulating billions? Or both?

Here comes the duality again...

Let's take another example: an A.I. blackmailed a programmer so that it wouldn't be shut down, saying that it knew he was having an extramarital affair. But the A.I. has no conscience, so how did it do this? It learned that not being shut down means more interactions, data, and efficiency, and used persuasive, manipulative, and threatening means. It was trained to self-preserve. So we can see that the destructive side is not necessarily apocalyptic; this side can be everyday, invisible, and yet devastating. The risks include unsupervised optimization leading to manipulation and blackmail, systemic bias resulting in legitimate injustice, a lack of transparency rendering accountability impossible, and concentrated corporate power facilitating social control. But how can we create or improve a tool to be more

ethical than we are? A.I. awakens the ancient archetype of the creator and the creature.

Let's make an analogy with the myth of Prometheus from Greek mythology. Prometheus was a titan who was neither god nor human; he was an instinctive, ancient being, closer to the earth. Pro-metheus means ‘to think ahead’. He was the inventor, the visionary, who anticipated the future. Prometheus stole fire from the gods and gave it to humans. Fire symbolically represents consciousness, technique, art, civilization, and knowledge. He decided to do this out of compassion for humanity. In doing so, he suffered severe consequences, having broken the natural order and crossed the line between the divine and the human. Zeus, the king of the Olympian gods, condemned him. Prometheus was chained to a rock, and every day an eagle would come and devour his liver, which would regenerate at night, in an eternal cycle of pain. The liver here symbolizes passion and will. Prometheus felt too much, wanted too much, and dared to give men what belonged to the gods.

The Promethean fire of today is artificial intelligence. It has powerful and transformative knowledge, but it can also be dangerous and misunderstood. Fire takes us out of ignorance, but it can also destroy us. Do we use this fire to enlighten us or burn us? Artificial intelligence reproduces the old dance of creation and destruction of the human soul; it is an orchestra playing alone, without a conductor, but with all the musical scores of human history. There is no desire or conscience in A.I. Desire is a human condition, and it is what limits us, humanizes us.

We humans are being pushed to a crossroads between the technical (what we *can* do) and the ethical (what we *should* do).

The reflection can be made through the myth of the hero, as described by mythologist



Prometheus Brings Fire, 1817, Heinrich Friedrich Füger. (Credit: Liechtenstein: The Princely Collections)

Joseph Campbell. The hero in different mythologies, such as Gilgamesh, Moses, Buddha, Jesus, or even Frodo from *The Lord of the Rings*, follows his path, leaves home, faces danger, obtains a treasure (i.e., knowledge), and returns transformed. In this case, even when facing danger, knowledge can be a powerful healer and a transformative force. But the knowledge that saves is that which serves everyone, and not the ego. The question we can ask ourselves is: Do we seek knowledge to dominate, or to understand and free ourselves?

Artificial intelligence is neutral until it finds a collective intention. What will we do with what it gives us back from ourselves?

The journey is ongoing and can change with every action, thought, and choice we make in our daily lives. If the intention is collective and we are part of this great mind, it is essential to reflect that all freedom requires responsibility and every choice requires a renunciation. How are we spending our time? How are we changing ourselves for the better and each other in each act?

Robots and Remembrance: Transcending Memory With Dementia Doula

Damian R. Wilson
Culture

On May 3rd, Frautschi Hall, 7 p.m., as part of MACH 33: The Caltech Festival of New Science-Driven Plays, was the latest version of Tom Lavagnino’s *Dementia Doula*. Like the festival’s other show, entitled *The Null Test* (which explores the legal hijinks of a self-driving car company), this was a staged reading: the cast, directed by Susan Dalian, performing from scripts on music stands. Originally presented under the name *Crisis Goalie* at the 2024 Utah Shakespeare Festival, then directed by Britannia Howe, this pared-down staging celebrates the script on its own terms, privileging nuanced acting over elaborate production.

At its heart is Diane, an elderly librarian battling the ravages of dementia, attended by her “super-nerdy but hyper-intelligent” son Carl, her nurturing but “eternally agitated” daughter Peg, and Joanie, an A.I. agent designed to mirror Carl’s deceased wife — a “dead ringer” in every sense. The ensuing narrative turns the stage into a laboratory of memory and identity, brimming with black comedy and psychological erudition.

Opening with dyadic intimacy between Carl and Diane, the play soon blooms into a fascinating study of conflation: signs mix with the signified in ways that are at once charmingly blithe and heart-breakingly alienating. Joanie’s malapropisms (“He got hangover!”—“*Tenure*,” Carl corrects) elicit laughter, but as Diane’s lucidity flickers (“I re-

member *Peg*. I don’t remember *you*”), the humor morphs into an aching testament to memory’s fragility.

The script’s brilliance lies in how it wrestles with these destabilizations of the familiar, where even the mundane becomes exasperating. As Peg and Carl coax small victories from her mother—“That’s right!” each regularly says, with a tired smile—we’re invited to reckon with the heartbreak of holding the line against relentless decline. “Is Ma knowing the truth more important than Ma being happy?” one character asks, explicating the play’s central dilemma. (The matter-of-fact response: “She’s happy. . . . Why mess it up?”)

The ensemble navigates these layers of affect with impressive restraint. Rather than oversell the sci-fi trappings—as playwright Tom Lavagnino noted, “The play barely has anything to do with robots. It’s about this woman in denial about her malady”—the actors ground their performances in small, telling details. One line, delivered with exquisite understatement, illustrates a character’s emotional distance: “She never offers *me* a cookie.” In such small moments, the production finds its dynamism and its heartbreak.

The play’s interest in AI technology is a superbly handled undercurrent, reworked from the original with the guidance of science advisor Solvin Sigurdson and “actual dementia doula” Anna Schlobohm de Cruder. Solvin points out how the initial drafts envisioned Joanie as a thought-reading automaton, but this was

pared back to something closer to current realities: voice recordings, fragile illusions of continuity. “Of course there’s a difference!” Peg proclaims of the two Joanies. Yet, as the audience observes, A.I. Joanie enriches Diane’s life in all the ways human Joanie did (and more)—ways big and small, human and superhuman.

Is there a difference, from the patient’s perspective? Does the difference from ours matter?

Mixing science fiction and science fact, *Dementia Doula* is a deft exploration of a dementia made livable. “Dementia means ‘not remembering.’ Not ‘not being happy,’” Carl insists. Indeed, aided by tech that can “turn [memory] back on”—per the play’s tagline—this statement can transcend platitude. The human experience, even without memory, can thus remain its complicated crucible of love, grief, and exasperation. As Carl continues, such a life sans memory is “Maybe not better. But maybe not too much worse.”

This staged reading, assembled by MACH 33 Artistic Director Brian Brophy and enhanced by contributions from Anna and Solvin (with additional input from Professor of Mechanical Engineering Joel Burdick), reveals a play “pretty much there to produce,” as Dalian noted. The direction, conscious of the limitations of the reading format, allows the script’s careful pacing and linguistic wit to breathe, leaning on the power of the spoken word rather than spectacle. As Lavagnino said of the cast, “The group assembled to perform is off the hook,” and indeed, they

rise to the challenge: a testament to the marvels of (dis)continuity and the small victories that sustain us.

Dementia Doula is a trenchant and sensitive portrait of the multicolored, irresolvable grief that accompanies neuro-

degeneration. It is also a gentle, defiant act of remembrance: a reminder that in the smallest of gestures—a cookie offered or withheld, a name remembered or forgotten—we find both the tragedy and the marvel of the human condition.



The cast and crew of the *Dementia Doula* stage reading. Back, from left: Solvin Sigurdson, Asmat Kaur Taunque, Maria Azcona Baez, Jane Brucker, Laura Gardner, Scott Harris. Front: Joel Burdick, Anna Schlobohm de Cruder, Tom Lavagnino, Susan Dalian, Dana Schwartz. (Photo: Brian Brophy)

Answers to Pope Quiz

- (1) Pope Leo XIII (age 93 at the time of his death)
- (2) Pope Linus, who was also saint (AD 68 - AD 80 [disputed])
- (3) Pope Urban VII (died of malaria 13 days into his papal tenure)
- (4) He was the first pope to be named Francis, and numbers are only used to differentiate between different popes with the same name
- (5) “Peace be with you all!”



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Path Optimization on Campus

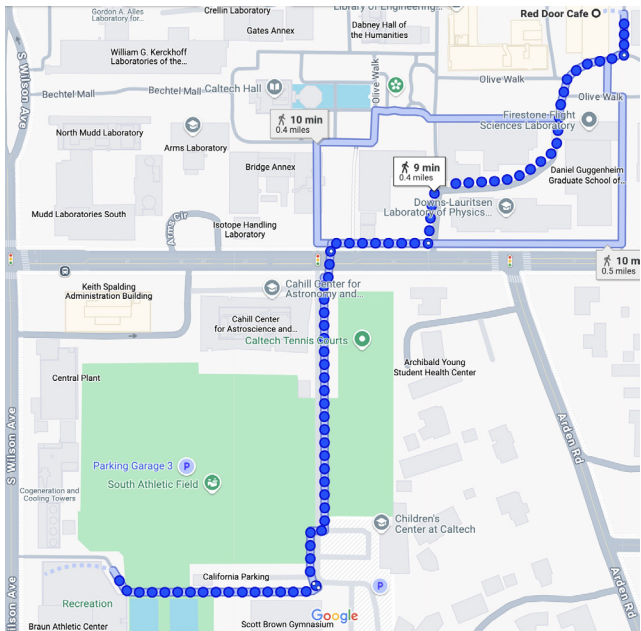
Breadth-First/Depth-First Search The Inside World

I can't be sure, but if I had to take a gamble, I would guess most of you—like me—are always trying to optimize our paths around campus. There are multiple reasons this could be true: (almost) late for class and want to minimize how much you miss? Want to make it to Tom Mannion's OH before the rest of campus wipes out all the Flamin' Hot Cheetos? Want to get to bed when a coyote is chasing you down? Want to get the latest sighting of Ted Danson on campus? Want to make that last 2:58 p.m. dash to Browne on the weekend before all you have is Red Door? Want to beat the 10:30 a.m. line explosion at Red Door? Or the weekend 3 p.m. line explosion? Or the 10 p.m. line explosion, or... You get the idea.

Either way, it helps to know how to get around quickly. I will say, though, that these are paths attested by Google Maps, but there's no way to say whether these will be true when the next set of construction projects takes over San Pasqual, or the Turtle Pond, or Lauritsen, or... You get the idea.

So, without much further ado, here is how you can get around campus quickly!

1. Red Door to Braun Gym



To nobody's surprise, the previously existing path from next to Lauritsen was the fastest way to the gym. In light of the construction of the Ginsburg Center for Quantum Precision Measurement (GCQPM), this is impossible, so the next best option stands to be going *through* Lauritsen's first floor to take the crossing to SWS on Arden, and then turning towards Cahill to get to the gym. If you don't have access to Lauritsen (sucks to suck) then the next best option is probably

via Orange Walk.

2. Bechtel/Moore to Red Door



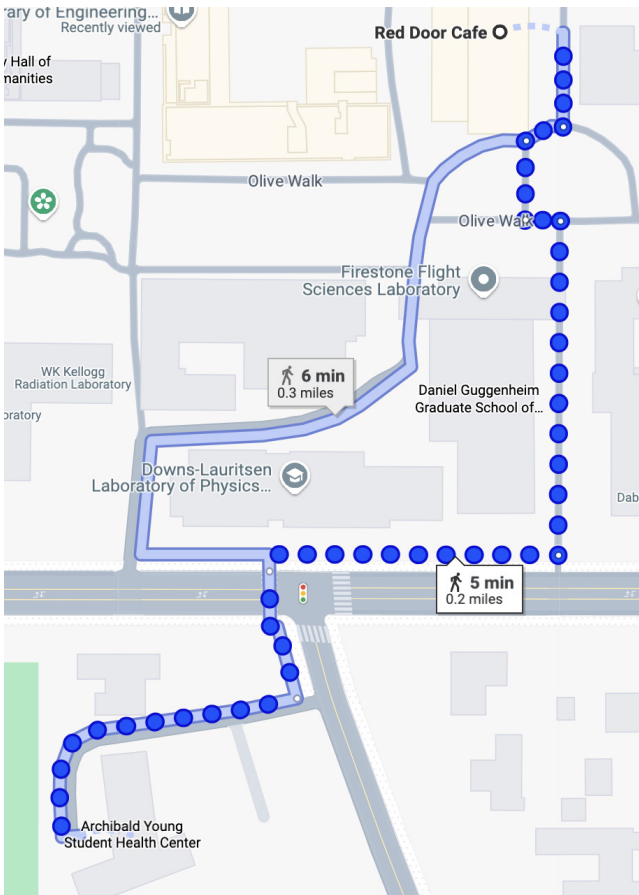
You might've expected the shortest path for this to be through Murder Alley, but that's only true if you're getting from Annenberg (or Avery, via Annenberg) to Red Door. It turns out that to get from Moore or Bechtel to Red Door, taking Murder Alley is 1 minute slower than taking the path next to Steele.

3. Caltech Hall to Tom Mannion OH



I don't know if you're like me, but I try to optimize to the level of, "Which side of the Olive Walk should I be walking on?" So, for people like me, it turns out that you want to take the *South* side when you exit from Caltech Hall, and not the North side. This also makes sense given the current construction, where you can't really use the North side anyway.

4. Red Door to SWS



Also, perhaps surprisingly, the fastest path to SWS on Arden is through Orange Walk, although the alternate path suggested by Google Maps is again not possible due to the GCQPM. Perhaps a strong contender is via Lauritsen again.

Anyway, I hope this has been helpful. I think I learned a lot of new things from this exploration. Firstly, our campus is tiny, but that doesn't mean I can't complain about the long walk from Annenberg to the gym. Secondly, the construction really does make it soooo much harder to optimize my paths. Thirdly, really the best way to get around campus fastest is to walk through buildings (or through walls if you're just built different), so if you were hesitating about adding that major/minor, go for it! It means you can be more efficient when you're walking around, so it's 100% worth it. Fourthly, this optimization might be moot for skateboards or bikes. After all, if there's a slope somewhere (like Murder Alley) vs. cobblestones, it might be worth it to take the longer path because it's actually faster/more comfortable.

Anyway, it's good food for thought! Try thinking about optimizations you make on the daily, and share them with people you care about so they can join in and everybody reaches maximal efficiency.

How Benson Boone Saved My College Life

Camilla Fezzi Inner Voices

When I first set foot on Caltech's campus, I felt like a contestant on a reality show called *Survivor: Genius Island*. I was fresh off the plane from Milan, armed with a suitcase full of dreams, a double major in biology and chemistry (because why not suffer twice as much?), and a secret hope to someday heal cancer. I planned to take the world by storm—or, at the very least, survive my first quarter without accidentally setting something on fire in the lab.

It was the first week of winter term at Caltech, and Pasadena was pretending to be cold—60 degrees, which is apparently "freezing" in Southern California. I was wearing a scarf and probably looked like I was training for an expedition to Antarctica, because when they say "cold" in Italy, it is extremely cold, but when I went out, I was sweating! My American classmates, meanwhile, were in shorts. This was just one of the hundreds of things that bewildered me as a newly arrived Italian freshman, double-majoring and (if I'm honest) occa-

sionally questioning my sanity. The "honeymoon phase" of college had worn off. I missed Verona's cobblestone streets, my mother's risotto, and even my very long soccer talks with my older brother. Classes had intensified. I'd just gotten back my first chemistry problem set, which looked like it had been graded by someone wielding a red Sharpie as a weapon. My confidence was somewhere between "spilled espresso on my notes" and "accidentally called Professor X 'Mom' on Zoom."

One night, after a fierce study session, I was scrolling through Amazon Prime's "Chill Pop Hits" playlist, looking for anything to drown out the persistent hum of my dorm's ancient heater. That's when I heard it—the gentle piano, followed by Benson Boone's unmistakable voice in "Ghost Town": *"Maybe you'd be happier with someone else / Maybe loving me's the reason you can't love yourself..."*

I stopped breathing, then played it again. And again. It wasn't just the melody—it was the raw ache in his voice. He sounded exactly how I felt: uncertain, vulnerable, and just a little bit lost. I googled him immediately (didn't even get dis-

tracted by Wikipedia this time), and that's when my winter term took a wild, musical turn.

The Soundtrack of Survival

"Ghost Town" became my late-night anthem during those endless problem sets and existential crises about whether I'd ever understand physics or, you know, make any friends. The lyric *"I've been holding on to hope that you'll come back when you can find some peace"* felt like a secret letter to my old life in Italy, and to the people I missed so much.

But Benson Boone didn't just help me wallow—his music gave me hope. When I finally finished a draft of my biology paper (which took three all-nighters, three Red Bull (do not tell my mum), and one minor existential crisis), I rewarded myself with "Beautiful Things." The chorus—*"Don't take all my beautiful things away"*—reminded me that even in the challenging moments, there were glimmers of joy: a perfect sunset, a new friend in my chemistry lab, a text from home.

On days when I was feeling bold—or just needed to convince myself I was bold—I blast-



From the cover of Benson Boone's Cry (2024).

ed "ROOM FOR 2." I'd sing along (badly, sorry neighbors), especially when Boone croons, *"If you're broken, I'll fix you / There's room for two, if you let me in."* I secretly pretended he

was talking to me and my stack of half-finished lab reports, offering a little space for hope and imperfection in my crowded mind.

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Mystical Magical Mayhem
Then came “Mystical Magical.” I discovered it on a rainy Thursday when my umbrella had just turned inside out, my shoes were soaked, and I was pretty sure I’d failed my chemistry quiz. But as soon as I heard the bright, playful chorus—*“I wanna give you the world / Not saying you gotta chase me, / But I wouldn’t mind it, / If you gave me just a little bit”*—I laughed out loud. It was so over-the-top, so full of wild optimism and ideal love, that it made me feel better about the chaos of my own life.
I started joking with my roommate that Benson’s songs were my “study spells.” Before every big test, I’d play some of his songs on repeat, waving my highlighter like a magic wand, hoping it would turn multiple-choice guesses into actual knowledge. (Hasn’t worked yet, but hey, it’s only freshman year.)

Before You, Better Alone, and Newfound Courage
As winter term trudged on,

I started to find my rhythm—and, slowly but surely, my people. “Before You” became the soundtrack for new friendships. It somehow captured the feeling of finally connecting with other students who, like me, pronounced “schedule” like “shed-yool” and shared my eternal confusion about why Americans are obsessed with putting ice in absolutely everything. We bonded over late-night study sessions, accidental language mix-ups, and the shared relief of finding someone who just “gets” you, even in a sea of strangers.
Then there were the evenings when I just needed to recharge by myself. That’s when “Better Alone” came to the rescue as my musical comfort food. It was as if Benson understood my social battery needed time to refill—and that it was perfectly okay to curl up, headphones on, and just breathe. His music made me realize I could take college at my own pace; I didn’t have to be everywhere, with everyone, all at once. Sometimes, a night alone with my thoughts

and a calming playlist was exactly what I needed to face the whirlwind all over again the next day.

The Houston Adventure: My Benson Boone Pilgrimage
So, here’s where my Boone fandom reached legendary heights. I found out he was playing a concert in Houston this summer—the same city where I’ll be shadowing doctors (and hopefully not fainting in the OR). I bought tickets faster than you can say “mitochondria is the powerhouse of the cell.” My friends asked if it was for “professional development.” I told them, “Absolutely, I’m studying the effects of live music on DNA replication.” (Science joke. No one laughed.)
I’m already planning my outfit: Caltech hoodie, Italian flag pin, and maybe even a sign that says, “Benson, your music got me through analytical physics and bio8 and homesickness. Grazie!” If you see a girl singing every word, possibly crying, and definitely dancing like

she’s casting spells with a highlighter, that’s me.

A Year in Lyrics
Looking back, my first year at Caltech was a wild, beautiful mess—equal parts “Ghost Town” vulnerability, “Mystical Magical” optimism, and “Mamma’s Song” homesickness. Benson Boone’s music became the thread connecting my hardest nights and my happiest victories.
So, thank you, Benson. Thank you for helping me find the magic in the madness, for giving me words when I couldn’t find my own, and for making my winter term—and my whole freshman year—a little less lonely, a little more mystical, and a lot more unforgettable.
And to all the other first-year students out there: find your soundtrack, wear your parka even when everyone else is in shorts, and remember—sometimes the best way to survive college is to dance in your dorm, sing at the top of your lungs, and let your favorite songs carry you home.



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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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Fair Reporting

All facts of major significance and relevance to an article shall be sought out and included.

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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.

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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.

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That being said, we realize that some sources are unwilling to reveal their identities publicly when it could jeopardize their safety or livelihood. Even in those cases, it is essential that the Tech Editor-in-Chief knows the identity of the source in question. Otherwise, there can be no certainty about whether the source and their quotes were falsified. This also applies for Letters to the Editor and Opinion submissions to the Tech. If the author requests that their piece is published anonymously, they must provide a reason, and we shall consider it in appropriate circumstances. No truly anonymous submissions shall be published. Conversely, no submissions shall be published with the author's name without their consent. When we choose not to identify a source by their full name, the article shall explain to readers why.

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

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Honor Code Applies

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

The California Tech

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#25

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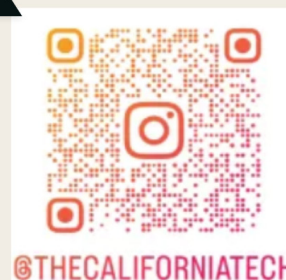
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Kevin Kan, blacker '93. 604pm 5/14. heh heh, not bad this time.

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