

PRINCETON'S CLIMATE STORIES

An artistic illustration of a person's head in profile, facing right. The interior of the head is a deep blue, representing the ocean. Inside this 'ocean' are various elements: a small orange fish near the top, a dark blue whale tail fin in the middle, a brown wooden boat in the center, a small white and black buoy, a brown glass bottle, and a pink starfish. The background outside the head consists of large, abstract shapes in shades of blue, orange, and brown, suggesting a landscape or sky.

A My Climate Story Magazine

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CONTENT

Welcome Letter	4
Authors' Profiles	6
Chapter 1. Letters from the Future	8
Chapter 2. Today's News: Our Climate Stories	18
Chapter 3: Climate Conversations: Educating for Just and Sustainable Futures	34
Postscript	68

Dear Reader,

On my way to campus one morning this November 2024, I got a frightening whiff of acrid smoke. I pushed my car to race ahead, just as the radio told me that a second New Jersey wildfire had grown out of control. Later, I learned that I shared a name with this fire, dubbed the “Bethany Run Fire.” Fortunately, and unlike so many others who have lost everything to climate-change-fueled fires, I was fine. No human lives were lost in the Bethany Run Fire. Less fortunately, the Northeast may now be “fire country.” For me, the experience offered a reminder, ironic and poignant: we can’t run away from climate impacts—their dislocations, their chaos, and the losses they bring.

This fall, I seemed to be talking to more and more people who were finding the local sunny, dry weather unnerving. The State of New Jersey warned we were in “extreme drought” conditions, perhaps not unusual in Arizona but quite rare in Princeton. While we waited to start class this fall, students and I kept trying to invent names for our uneasy enjoyment of the wacky warm weather. For some of us, “uneasy” wasn’t enough. “Freaked out” often felt more apt. Yet our class carried on, even as we asked ourselves about the viability, or desirability, of business as usual. A week after my run-in with the Bethany Run Fire, we moved our discussion outside, but soon had to find shade. It was just too hot.

Atmospheric CO₂ levels hovered around 425 ppm that month, up some 40ppm over the lifetime of the first- and second-year students who had enrolled in “Climate Storytelling for Climate Action,” an experimental class I offered as part of the My Climate Story project and as part of my year at Princeton as the Currie C. and Thomas A. Barron Visiting Professor in the Environment and Humanities. Earth scientists described their “patient” to be in “critical condition” this fall. Nonetheless, and despite increasingly clear visualizations and understanding of methane gas’s potent role in global heating, governments and businesses around the globe continued to bet on “natural” (methane) gas as a viable “bridge” to sustainable energy futures. Hope that global heating might be limited to 1.5 degrees warming dissolved.

It was a tough climate to learn in, the students and I agreed; but learn we did.

We learned, sometimes to our surprise, that none of us can run from climate impacts. There is no outside on a planet that humans have been increasingly dramatically transforming since the dawn of the industrial age.

Chat GPT-generated image and description of Princeton in 2054, “The city has embraced green technologies and sustainability is the new standard.”



We were heartened by Princeton’s sustainability plan. After we asked Chat GPT to paint us a picture of Princeton in 2054, we wondered what it would take to scale that vision and commitment and make it still more inclusive.

We learned, again to our surprise, that scientists had been warning U.S. Presidents since Kennedy about the dangers of human pollution changing the earth’s environment. Alongside the climate solutions that tech fixes promise, we learned a lot about how simply talking about climate change can be a powerful first seed for climate action—and a necessary one if we are to tackle climate challenges in a just and democratic manner.

We discussed reasons behind decades of U.S. and global climate inaction, including a “triple failure of the imagination.” We explored the kinds of education we need to build “agency in the Anthropocene” and to fight for planetary and human health alike. We read and reported on fictional and nonfictional stories that helped us consider how to live amidst climate change. We asked ourselves—as well as generous students, faculty and staff interlocutors beyond our class—how we can write the climate story we want, rather than the one we felt stuck with.

This journal holds some of the answers to the many questions we explored. If you’re reading this, we assume you might be asking yourself some of the same, and so we’re sharing our answers with you as an invitation to dialogue. We hope they’ll help you consider your climate story—and, if you feel so inspired, share it with us and the wider world.

—Bethany

Bethany Wiggin



AUTHORS' PROFILES

Climate Storytelling for Climate Action was an experimental seminar offered for first- and second-year students in fall 2024. These intrepid students have co-authored this journal.



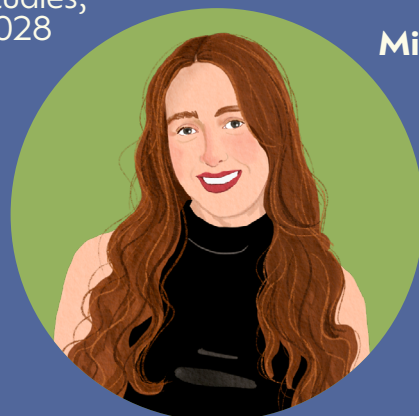
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LETTERS *from the* FUTURE



Our climate story starts from a place in the future, when these undergraduates will have turned 90 years old. To write letters from the future, I asked the students to practice “kitchen table sci-fi,” imagining conversations around a kitchen table with their own grandchild as well as conversations that grandchild will have with their own grandchildren, some time toward the middle of the twenty-second century. The low-tech narrative strategy helped them imagine a future not dominated by the high-tech so often at the heart of sci-fi. In the kitchen, a place where we often gather to share food and care for loved ones, the student-authors cooked up stories centering emotions and relationships in their visions of future worlds.

As they developed their letters from the future, they considered caring words that their own grandparents and elders have shared with them; they considered the scope of climate change from their grandparents’ birth, two generations removed from their own, to the possible changes that await those born generations in the future. As writer Andri Snær Magnason has said, “If you have meditated that 2160 is your intimate time, then 2090 is too close for comfort, instead of being just a fuzzy date far out into the future.”

The student-authors wrote messages from the future that play with a range of emotional registers. Michael Igbinoba, the future lead scientist at NOAA, penned a stinging rebuke to a contemporary climate disinformationist. Writing from a watery Dublin, Rory Rusnak refused to give in “to leaders who hoped we would sink.” Even as Angela Osaigbovo wrote from future New Jersey amidst the “ruins of the I-95 right on the new coast of old America,” she gave thanks to those who had brought an end to the “capital-dependent car-indebted world.”

These authors’ warnings about the costs of inaction and their anger—and in some cases despair—should galvanize our attention. Their words of hope and solidarity across generations, even amidst ruined landscapes, remind us why, and for whom, climate action matters.

Angela's Thank You Letter

Thank you, Thank you, Thank you

I breathed for the first time today. The sky was a dim lavender peeking from behind the heavy clouds, and the rain was sweet. It tickles the center of my scalp before running off the bridge of my nose. And for the first time in a long time I can sit and experience this strange feeling — it's beautiful.

I'm standing on the ruins of the I-95 right on the new coast of old America and if you could see how the Earth has taken it back you would be stunned. The concrete stretches have given way for all kinds of twisted weeds and the mile markers have been harvested for animal feeders and new high speed rail tracks. About a half-mile away curious children are discovering the last remains of a faded WaWa billboard half-sunken underground. They are discovering what it was like to live in capitalist America for the first time outside of their history textbooks.

I am in the last generation to know the old order and to have lived in the capital dependent car indebted world that you tried so hard to end. For the first time, I take off my smog mask and breathe and the air is sweet. It's musky but for the first time in my lifetime it is clear. Thank you. You told me stories of life in the 10s and 20s and I couldn't believe you. I couldn't imagine snow or a time when April showers didn't consume entire cities. A time hung perilously between progress and regression yet you individually are unable to swing the dial. Because I had never heard the calm of a swaying forest trail, I didn't understand why you fought. Because I had never lived, I couldn't fathom why you, and your generation, would bring global systems to their knees and raise them up with all that you dreamed the next generation would never lack.

Thank you, thank you, thank you.



Camila's Letter to Paulin

Dear Paulin,

I am writing to you from what is left of my great-great-grandfather's house in Cusco, which is probably bizarre to hear because when you read this letter it will be 2024 and I'll most likely be somewhere around Princeton if not next to you. Turns out I'm writing from the future. The very long but not so long future. I have white hair and wrinkles all over and the references I make in my jokes are from 50 years ago. But you still love me the same.

So, I've come to tell you how the world changes from impending climate collapse and turns out it's by wreaking havoc. While you are reading this letter fascism is on the rise and climate change doom is common and nobody seems to know what to do. You know what to do. You learn how to forage. You become more empathetic. You look for intersections where your pain meets with the pain of a surprising other. You read about different ways to organize this world politically beyond US imperialism and beyond all the oppression it is founded upon. You gather our friends and we learn and imagine how a better world would work. Together, we show them we are reliable and trustworthy. That if they go out there and protest and sth happens to them, we'll have their back.

And though this is nothing new to you, I am here to confirm what you already suspect about the future: the doom you feel will never go away even if you take action. In 2024, I would stay awake at night thinking that the end of the world was near. And at times I would tell myself I was ready to accept it. It's when I think of home, my great grandma, you, the first floor of our third story house in Lima, that I fall to pieces. So we have no choice but to move forward. Especially now when the end of the world we knew has come. We'll build something better even at our age or we'll die trying.

Warmly,
Camila.

Maggie's Letter to Her Dad

Dear Dad,

It's 2068; I'm now 62, the same age you were in 2024. I'm writing from Princeton, watching my daughter prepare for college. This moment in my life reminds me of our conversations from my youth, where you attempted to reassure me about the state of the world. I laugh now, repeating your words to her: "We have been through tough times before and have always made it out." As you told anecdotes from dark times in your childhood, from Vietnam to the Civil Rights Movement, I remember rolling my eyes; "you didn't get it." However, I sit here on the other side of the climate crisis, analyzing the newly visible stars in the night sky.

In 2050, things looked bleak. Heats soared into the high hundreds, and sea levels rose rapidly. Once filled with baby deer resting under the safe canopy of trees or osprey feeding their young on their nests, our backyard was returned to the fish. After a devastating hurricane, I stood on the new coastline as waves carried the neon sign from our favorite Italian restaurant with them. However, as the Earth faded, humanity woke up.

Education was essential. Schools emboldened the minds of young people, allowing them to imagine a future they could be proud of and empowering them to create it. Solutions for a lower-impact society weren't just a dream; they were our reality. Fossil fuels were replaced by clean energy. Scientists began reintroducing extinct animals to the planet. Teams cleaned up from natural disasters, turning tragedy into a place for flora and fauna to thrive. Temperatures have even dropped due to the decline in greenhouse gases in the atmosphere, and the air is no longer filled with smog.

While my daughter complains about the country's political state, still fragile from past disasters, I am reminded of your wise words. Our old home, now an underwater sanctuary, has been repurposed for something greater. While things always fluctuate, I am confident in humanity's resilience and spirit. I wish you could see this world, but I know you would be proud to see how we made light out of darkness.

Love,
Maggie

Michael's Letter to a Prolific Climate Misinformationist

Dear Vitezslav Kremlik,

I write to you from 50 years in the future, in the year 2074. I sit in my underground office, brightly lit and powered by geothermal energy. These shelters, built deep beneath the surface, are necessary as the world above has become too harsh in many regions due to climate change. The hum of air filters and energy systems surrounds me as I recall the books you wrote during my undergraduate years.

Today, I serve as the Under Secretary for Oceans and Atmosphere and NOAA Administrator. NOAA, once criticized and undermined in your era, now leads the global effort to address humanity's impact on the environment. Our ability to predict and navigate climate challenges has become essential for survival.

What I wish I could have told you 50 years ago is that the skepticism you promoted about climate science did not last. The evidence of human-caused global warming became undeniable. Rising temperatures, extreme weather, and ecosystem changes forced people to act. The inertia of past emissions, the heat stored in oceans and the carbon lingering in the atmosphere, shaped the world long after action began, but it also spurred innovation and collaboration.

The difference between your time and mine is stark. In the 2020s, scientific warnings grew louder, but fossil fuel interests and climate skeptics, including yourself, sowed doubt and delayed action. However, worsening disasters made the cost of inaction clear. Grassroots movements, led by the youth, demanded change, and advances in renewable energy offered a path forward and over time, humanity's desire for a cleaner, safer future overcame resistance.

Today, while challenges remain, we have embraced sustainable practices and become better stewards of the planet. Underground cities like mine are part of this adaptation, offering safety and resilience. Aboveground, reforestation and carbon capture efforts are repairing some of the damage. Humanity's journey was not easy, but collective will and innovation prevailed.

I share this not to reproach but to reflect. The doubts you championed became a footnote in history, overshadowed by humanity's determination to create a livable future. In the end, the desire to protect our world for future generations proved stronger than denial.

Sincerely,
Michael Igbinoba
Under Secretary for Oceans and Atmosphere and NOAA Administrator



Rory's Letter to "Leaders Who Hoped We Would Sink"

December 21st, 2052

To the leaders who hoped we would sink,

I don't write much these days. Not from my apartment, at least. It's a third-floor studio in The Liberties; a walk-up with stained brick walls and a kitchen-cum-bathroom divided by a shower curtain. They sold it on the promise of high-vaulted ceilings, although, truthfully, I didn't care much about the design. "You take what you can get these days," I told the realtor, before signing the lease and riding away on my bike down the incline into town, to an office job in a building now underwater. They all questioned me when I stayed, my friends. Hadn't I seen it? Dublin was sinking: Greystones, Bray, Malahide — all disappearing before our eyes.

At times, I'd ask myself if I was stupid to have stayed: I could have gone to Madrid or New York and enjoyed better weather while the world burned to shit. But I'm a hopeless romantic, or a stubborn optimist. Those of us who stayed, who had to wade through knee-high water on the way to work, we didn't forget. We didn't forget about our waterlogged shoes when we walked to the ballot box: we voted for parties that were not perfect, but workable. And we got to business.

We scrubbed roofs; applied wonky solar panels, shared bikes — cut off the roads to trucks, and built playgrounds where the city parking lots once were. We planted wildflowers where tulips had been and heard the bees return in the Spring air. And with every little thing we did together, the beating of our collective wings.

You who convinced us we couldn't do it, the inner saboteur who said, "The destruction has started already. What's it worth anyway?" You who taunted us with empty promises.

I think we have taken the reins from your hands.

Warmly,
Rory Rusnak

Trinity's Letter to a Future Grandchild

A Letter from 2094: 70 years in future

Dear Grandchild,

As I write to you in 2094, during an era of harmony between people and the planet, I can't help but reflect on 2024, when I was a sophomore at Princeton University. Back then I stood at the crossroads of privilege and crisis — learning in a place of immense opportunity and prestige while the world around me was overtaken by political unrest, climate upheaval, and human rights struggles. Protests against racial and humanitarian injustices surged. Extreme weather events escalated. Leaders failed to bridge political polarizations. The world felt hopelessly divided.

Yet today, we live in balance. Students of my generation refused to accept the status quo. Those with a vision and the resources to enact that vision led the wave of change. At institutions around the country, students dismantled elitist norms, integrating climate justice across every discipline, and centering marginalized voices in policies. They uplifted grassroots movements as the leading solutionists: developing green technologies, reparative land policies, and resilient infrastructures. Slowly we redefined progress.

While today's climate is warmer than 2024's, islands are submerged, and industries are lost to the scars of over-extraction; we've altered the trajectory of change while protecting those most vulnerable. Holistic justice was once a distant dream but it is now your standard — your reality.

You live in a world that was once only a vision. A world shaped by those who refused complacency. Know that this "new normal" was not always normal.

With love,
Your Grandmother



Sidak's letter to Mrs. Carney

Date: December 5, 2084

Location: Gainesville, Virginia

Dear Mrs. Carney,

I hope this letter finds you well, though it's written from a time you may have only dared to imagine: 2084. I live in a Northern Virginia transformed by a sustainable revolution. Reflecting on our previous climate conversations in your AP Environmental Science class, I'm excited to share how your hope has manifested into a thriving, inclusive future.

Today, Virginia serves as a thriving hub of green innovation. Imagine a neighborhood where every house has shiny, community-owned solar panels on the roof, harnessing the sun's energy and sending extra energy back to the grid. As I walk my dog through the community, I see kids playing with the lush vertical gardens growing on walls. Once the prime site of neglect, the Potomac River now acts as a trophy of ecological restoration, bursting with life thanks to watershed protection. People kayak along the clean water and families like mine picnic along its banks.

However, the journey here wasn't easy. Rising sea levels forced many people to vacate from low areas. I still recall how one of my classmates had to pack up what little he could carry and head for higher ground. Combatting this required adaptive planning and equitable relocation efforts. By 2042, global temperatures had risen 2°C, which strengthened storms and reshaped our ecosystems. My own house had been affected heavily by one particular superstorm, which broke trees in my backyard and flooded the roads I needed to take my kids to school.

Though it might sound bleak, the urgency spurred action. Fossil fuels such as coal were replaced with renewables by 2070 and the carbon capture technology that I helped develop was widely adopted, assisting in tackling emissions. By fostering interdisciplinary thinking and community projects, schools prepared generations of students to be advocates and innovators.



I saw the impact of new education styles firsthand when I visited a school where the students transformed their playground into a thriving garden. Local youth movements, many of which were led by your students, also demanded accountability for past actions and inspired policy shifts. I particularly recall 2055 as a turning point, when record wildfires in the U.S. sparked international collaboration as they painted the skies orange and filled the air with ash. Advances in sustainable energy and efforts to reforest affected areas began to reverse the damage. Slowly, our lush, green forests reappeared.

In 2024, many underestimated the power of grassroots action and environmental education. Few realized that every informed vote, every recycled can, and every debate could forge a monumental change. My own classmates used to laugh during recycling drives, wondering how sorting a few bottles could make a difference. Today, I understand that these small efforts added up to promote a wave of action and awareness.

I now live in a society which once felt distant but has become part of everyday life, where humanity prioritizes resilience and coexistence with our natural world. Communities thrive using renewable energy, sidewalks are filled with trees that help sequester carbon, and diverse groups of people work together to protect our shared planet.

Thank you for inspiring us to imagine and build this reality.

Sincerely,
Sidak Singh

TODAY'S NEWS:

Our Climate Stories

We began our inquiry into climate stories with our own. A series of activities and prompts guided us to identify how climate change is impacting our homes, in more and less obvious ways—and to reflect on how those changes were also changing us. If you'd like to use them to write your own climate story, you can use [our workshop materials](#).

In these short non-fiction climate memoirs, the authors consider climate change's personal impacts.



The Georgia Climate Followed Me to Maryland

By Trinity Smith



As a six year old living in Atlanta, Georgia my childhood summers were not full of lengthy days in the sun; instead, they were synonymous with sweltering discomfort. The unbearable Georgia heat often forced playtime indoors and my parents frequently cautioned me about the risks of dehydration and heat stroke. It was normal to see Atlantians with towels draped over their necks, gallon jugs of water in hand, and an extra shirt for a quick change. Evenings offered some relief, but as darkness approached, playtime was still restricted. Ultimately my most cherished summer memories reside indoors—cooking with my grandmother, building projects with my father, and reading with my mother. When we moved to Maryland before middle school, my world expanded. For the first time, my wardrobe mirrored the changing colors of the leaves; finally, I could transition from shorts and t-shirts to sweaters and corduroys, and eventually winter coats and Uggs. I experienced the thrill of snow-induced school cancellations, whiteouts on my bedroom windows, and mornings spent wading through inches of snow. These memories quickly became cemented in my mind.

However my sister, who is 7 years younger than me, has a different story. Being only a baby during the move, she did not retain memories of the trees turning colors until much later when Maryland winters began to lose their charm. As the years passed the seasons lost variation and snowfall dwindled, replaced instead by ice and hail. While I nostalgically lament the chilling autumns and winter wonderlands of my youth, I watched my sister's childhood become marked by sparse flurries and icy treks to school. Today she beams at the sight of snow dusting the ground, while I mourn the heavy blizzards that once defined my winters.

This past June, when I returned home from my first year of college, I found myself catching up over the phone with my grandmother who still lives in Atlanta. As always our conversation drifted towards the weather—a ritual that bridges our separation and connects our lives. When she asked how it felt in Maryland, I described how the temperature soared into the nineties that week, with today reaching 101. To this she replied, “Wow, today it only reached 96!” In that moment, it felt like in just a decade the Georgia climate had followed me to Maryland. Somehow our three generations now stand on three geological timestamps of climate change: my grandmother cradling memories of a temperate past, me who bore witness to the shifting present, and my sister who faces an uncertain future and the new normal it'll bring. This story calls me to confront the swiftness with which climate change is altering our lives and determining our future. It is not a climate crisis for later generations to endure, it is a crisis now. Past experiences can remind us that the “new normal” we experience today, is not actually normal and now is the time for change.

My Climate Story | Manassas, Virginia

By Sidak Singh



A few years ago, it was common to peer out of my home's window and notice a deer running across a forest or see two rabbits fighting beside a neat pond. As I walked outside, the neighborhood would be tranquil and not too warm, so I could ride my bike and play soccer with friends for hours. Now, warehouses have replaced the trees, and myriad industries have sprung up behind the pond that was so elegantly situated earlier. My family and I have lived in Manassas, what used to be a relatively silent area of Northern Virginia, for over 14 years. We were initially drawn to its diverse ecological life, stretches of green space, and scenic parks. It presented a great quality of life for residents, especially families.

My parents frequently used to take me and my sister to the nearby Manassas National Battlefield Park, and hiking along its beautiful landscape instilled within me a love for our environment. As I grew older and began to lead several school organizations such as the Science National Honor Society and Environmental Club, my passion for the environment became a responsibility to preserve it for future generations.

Unfortunately, extensive housing, industrial, and data center developments have reshaped our area in recent years, negatively impacting the environment's health and welfare of citizens. Environmental zones have suffered through increased energy usage, natural resource depletion, and industrial air, water, and soil pollution, among other consequences. Factors such as noise pollution, traffic congestion, and health issues simultaneously harm our residents' quality of life. For example, many charming land parcels near my home have been completely deforested and traffic has become immeasurable due to work zones and improper planning. These also contribute to the effects of climate change today. Northern Virginia's average of 25 days above 90°F from 1976 to 2005 rose to 29 days from 1991 to 2020. By 2035-2064, it is projected to reach 69 days. Summers used to be mild enough for enjoyable outdoor activities like my family hosting our weekly tennis game, but now the intense heat limits those options. I worry that by 2064, even a brisk walk outside could risk heat exhaustion for my children and future generations.

Expansions, as described, are necessary for our area's economic development, and they provide valuable utilities such as manufacturing industrial supplies and processing important data. However, they must be effectively organized to protect residents and the natural land, rather than being placed near homes or schools as they are now in my community. They are also part and parcel of global processes that can strain local resource systems. As I think about life in Manassas and beyond in 2064, I worry these changes will harm green spaces, increase pollution, and reduce my family's quality of life. I believe people should have a shared interest in preserving our environment to the greatest extent possible. As I learned through my studies and witnessed firsthand through several co-curricular experiences, it provides critical services like biodiversity conservation, carbon sequestration, and recreation spaces. Furthermore, as I reflect on my life in the context of a 2064 future, I recognize that my environmental education is more important than ever, teaching me sustainable practices, global responsibility, and informed climate choices.

Even though it may seem like the environmental outlook is grim, I find myself hopeful about the future. I am excited to use the skills I develop in college to positively impact my community and the world.

Letter to Grandchild | Dublin, Ireland

By Rory Rusnak



Unit 32,
Story 9, Compound 1,
Midlands.

June 12th, 2085

You wouldn't remember it;

It was a perfectly still, molasses morning in mid-November, 60 years ago, and the sky sat stilted — high and mighty — and purple and without a cloud above us. It was cold outside; bitterly so. That crisp, targeted cold that wrings the fingers and assaults the inner-ear — cloying and unavoidable and immune to smart-layering.

On that morning, I left my house — the house where your great-grandmother lived for thirty-odd years — with my school bag tightened around my back, straps pulled tight around the shoulder and hands nestled around a kettle of boiling water. You see, it was customary, on those Winter mornings, that I'd get up and boil water to defrost the windshield for your great-grandmother's car — an old, Diesel-run thing that hasn't been in production for some forty-odd years.

We would drive ten agonizing minutes down the road during Winter, because I wasn't allowed to walk alone to school as a child. I still remember the road parallel to the sea, my mother's hands gripped on the steering wheel and I'm white-knuckled in the passenger seat, black ice paving our way.

The problem with black ice was that it was impossible to sense until you were on it. And by that point, you were stuck — or skidding; the apprehension was valid.

You wouldn't remember it, but the sea beside us used to be quite beautiful: it was green, blue and muddied from sand, but peaceful most of the time, and swimmable. It was not yet the foaming beast that destroyed the bollards some years ago, that crept higher and higher to conquer the grasslands for itself. This wasn't the sea that you now know, that we have to fight to prevent from reaching us.

It's an hour after the car ride, and I'm walking through the train carriage. This is my every day journey to school: alongside me, the familiar sun is half-risen, the seats occupied with a sea of commuters lifeless under fluorescent LEDs. I sit down and look out at the fields as we begin to move, at the iced Wicklow mountains in the distance. It's hard not to feel a sense of melancholy, now that I'm thinking back, knowing that there were few days like this left in store; and that you wouldn't get to experience any of them.

The fields in the distance are now car-parks, and the mountains are impressive, but fertile and green year-round, except during the Summer: I have to remind myself heatwaves are a thing now.

We did fight, though; that's why the car-parks are fitted with those electric chargers, and that train I was talking about, it still runs every morning. Those mountains have been rewilded, and after the gorse fires in June, when you look up at the sky a month later, I think you'll find it stilted and purple, perhaps not as clear but still holding us.

I'm so glad that we can be held by this sky together.

Echoes to Whispers, The Story of a Melting Winter | Chicago

By Michael Igbinoba



Every February, the moment I heard ABC5 flick on, I'd bolt into the living room and dive onto our worn, ashy-brown couch, ignoring my parents' shouts to calm down. February of 2011 was no different. Outside, the Chicago sky was gray and bitterly cold. As the school closings were announced, I already knew what was coming: a snow day. The next day always meant hard work. My parents, my sister, Arlette, and I would be out in the driveway, shoveling through a relentless blizzard. My parents rushed to clear a path and get to work, but as a kid, I couldn't have cared less. The roads often turned into sheets of ice, and the entire community inched along, cars slipping and sliding, barely moving. But my only concern was perfecting my snowball throw and dodging the next math quiz. Those were my golden days; a winter wonderland wrapped in chaos, blissfully unaware of the underlying struggles.

Yet a new struggle emerged when I lost that very joy I had cherished. As I entered my teens, snow days became rare, and "white Christmas" slowly faded into distant memory. Winters just weren't winters anymore; gone were the blankets of snow that once defined the season.

The older generation sighed in relief, finally able to get through winters without being trapped by the passing plow trucks. But for us, the youth, something shifted. Snowmen became a rare sight, almost mythical, until they vanished altogether. Over the years, I watched them disappear alongside cherished traditions. Eventually, we sold our snow blower, ended our driveway shoveling service, and even parted with the toboggan we once loved, riding down hills in moments of pure joy. Where had those days gone? What had winter become? Is this still winter, or has spring quietly taken its place?

From my perspective, this change was unmistakable. Leading up to my matriculation at Princeton, even the spirit of Christmas and New Year seemed to dim. Snow was an essential part of that chilly yet comforting feeling we experienced at the close of each year. Without it, the festive magic faded. Houses around us gradually stopped displaying Christmas decorations, and the streets felt emptier. When I asked my parents about our Christmas tree, they would respond with the same answer: it would remain in storage for the third year in a row.

We humans weren't alone in feeling these changes. The Canada geese, once famous for their loud calls and V-shaped flight patterns, began migrating later each year—until it seemed like they stopped migrating altogether. Chipmunks, which I thought would be hibernating, continued to roam and thrive, as if winter had ceased to exist. These shifts impacted not just our community; they occurred on an existential scale, altering the rhythm of wildlife. The seasons that once defined how animals lived and behaved were unraveling, reshaping the natural world before our eyes.

Deep down, many recognize the sadness in witnessing these changes, driven by actions both within and beyond our control. Unfortunately, others don't share the same ideas, so it's crucial to share our experiences and document the transformations in our lives. By doing so, we create a record for both current and future generations, allowing them to learn from our journey and understand the profound impact of climate change. Through awareness and dialogue, we can inspire meaningful action and work to preserve the beauty of our winters for those who come after us.

Drowning in Toxic Love | New Jersey

By Maggie Stewart



Photo credit - Associated Press Photographer Wayne Parry

Climbing atop a raft, I feel the river's waves swaying me back and forth. I take a deep breath, expecting salty air to fill my nose; instead, I am hit by the pungent smell of death. It's the aroma of thousands of fish suffocating. Immediately, I am snapped out of my peaceful summer day as the sun's rays on my face go from a warm hug to a burning laser. The Navesink River was once the source of life for the Lenape People who inhabited New Jersey, where I spent most of my childhood. I grew up sitting by the river, watching the sunsets illuminating birds diving into the cold blue water for their evening meal. I remember the river being a place where I could escape reality and relax. Whether on a jet ski in the summer with my friends or watching and waiting to be one of the older kids who could ice skate when the river froze over.

The river has always been a symbol of pride in my community but has quickly become the butt of jokes over its browning waters and frequent sewage leaks.

It's a strange paradox. As pollution and climate-driven events profoundly and negatively impact the Navesink, human recreational usage is increasing. The more the Navesink's natural beauty and biome are destroyed...the more people want to drag coolers behind their boats on it. It's a death spiral. The river is essentially drowning in toxic love.

I was unaware of the state of the Navesink until one morning in 2020 when I stepped out of my house and was transported to a meat locker. The smell of rotting fish overwhelmed my senses. When I looked down onto the shore, I saw thousands of Menhaden fish washed up onto the sand. These fish massacres, as they became known in my household, happened the next year as well, where, once again, the town was shrouded in a thick layer of death. An unidentified *Vibrio* bacteria caused the outbreak, which is known to thrive in warm and polluted waters. Menhaden fish are critical to the ecosystem as they sustain larger fish and birds. But without them, the river gets less and less lively every year.

Even as I watch the river die, it is hard to change my actions. I still look forward to summers spent on the jet ski, ripping through the water, even if I have to hold my breath every time the water splashes up at me. When I turn on my engine, I fill the atmosphere with carbon dioxide and the water with fuel. I am filled with shame knowing my actions directly harm the ecosystem I love, but I still do it. It's an ever too common phenomenon of knowing the harm of your actions without changing what you do next.

I think of my fond memories of growing up on the Navesink and feel a sense of grief. The beauty of this river will soon be lost to future generations. This once vibrant and serene place has become a cesspool of human waste. I would have hoped to share this river with my children, taking them out on the water and eating watermelon until the moon came up or stepping out on a cold winter day to find the river frozen solid. Soon, these experiences will just be a figment of my imagination, something held in the depths of my mind. There is no question that the Navesink River is a victim of not only the extreme weather and changing tides of global climate change but also the callous and often environmentally recklessness of the booming population that views it as a play and dumping ground. As the planet grows sicker from climate change and pollution, the Navesink River will be one of many places lost to the annals of time.

My Not-So-Bad Was Their Worst-Case Scenario

By Camila Villavizar Gomez



In 2017, I was queued up on a hill that led to an underground water pipe. It was one of the last ones from my municipality that still worked. I was in La Molina, a district in Lima, the capital of Peru. And I was hot. That day we were trapped between an ongoing and relentless 86 to 88 degrees Fahrenheit in a city that normally reaches 84 degrees but whose temperatures have increased since the 60s. I sweated through my linen sleeveless t-shirt and my jean shorts. My sandals kept slipping as I walked. A flood of Lima's Rimac River had inundated districts relatively close to us. Many houses and apartments in my neighborhood were left without water and those nearest to the river were devastated.

The flood in Lima was fed by others in the highlands of Peru as well as rains that went largely ignored until they burst through the capital, impossible to ignore. My mom and I stood in line for hours to have our pots, buckets and plastic bottles filled up only to see the water disappear as we washed our plates or our hands. Eventually, we took a bus to a supermarket and then carried a gallon of water each up the stairs to the fourth floor of our apartment. We had no elevator. Somehow, I still believed I didn't have a climate story when I was first asked for one.

At the time I considered myself to be inconvenienced rather than affected, especially when compared to those who had actually lost their houses, their animals, and their livelihoods. But as I look around me—the silent degree increases in both the Celsius and Fahrenheit scales, the lies big oil companies push about a climate change crisis that is increasingly impossible to ignore, the impending doom of an administration that will change the course of the climate crisis for decades to come, the surprise from those who listened to my story and found my not-so-bad experience to be their worst case scenario—I understand that though I am privileged to not have lived through the worst of a climate disaster, I still have a climate story.

Summer Cooking

By Angela Osaigbovo



Although I'm an avid chef, I often struggle with frying the perfect egg. From achieving the right yolk runniness, to crisping the edges without overcooking the whites, frying the perfect egg for the right dish can be deceptively simple even for the best home chefs. What I didn't consider, and expect to happen more and more often, was being able to fry a perfect sunny side up on the back of my new laptop this summer.

2024 beat 2023 for hottest summer on record, and the great outdoors became a sizzling nightmare. The few times in July I tried to leave, the stinging front door knob, shoe-melting asphalt, and untouchable metal gate tried its best to stop me. Many times it did, and I spent mid July hiding from the heatwave in my bedroom and besides, I had a summer course to finish and I thought I would do so easily from the comfort of my desk chair. Like frying the perfect egg, or making an untoppable baked good, avoiding the heat was impossible and it found many ways in doors.

Consider every normal human process that produces heat: walking, hugging, sleeping, even bathing. Imagine every simple task becoming strenuous and sweaty and a constant battle against heavy air. The air conditioning units even in my small apartment could not dehumidify the air or work against over 95° temperatures for days on end. The wet heat coated every couch cushion, every bedsheet, every door knob, and every once-cool floor tile that I would typically lounge on in a normal summer to cool off. Cooking, in the most poetic feedback loop, couldn't be done without cooking the chef as well. Typing, which you would think could keep you as cool as possible, and which was necessary for my course, would only heat the air further since my laptops (one new and one old), phone, and iPad, couldn't function without overheating the battery and blasting the fan to compensate. A laptop I'd bought the same summer for better performance and a longer battery life couldn't run Google Docs without burning the top layer of my desk. In this shared heat dome, simply trying to live made it feel worse—from this manmade summer hell, there was no escape.

The wet bulb temperature is a measure used to account for the indirect heat stress of humidity and other factors that contribute to how temperatures feel. As the climate continues to heat, the ways our bodies and our lives perceive it will be strained in ways that a thermometer cannot fully express. At 95 F, my apartment in Newark, with AC everywhere but the kitchen and bathroom, effectively became a sauna. At a high of 98 F, my laptops became unusable and sat bottom up in the shade where they continued to cook. A midsummer heat wave caused almost all personal technology to become temporarily obsolete in a home relatively low to the ground with normally sufficient ventilation. If my average apartment cannot handle our current stage of climate catastrophe, I struggle to imagine the aging infrastructures around the world and the communities that rely on them. As a whole we intend to continue cooking ourselves and everything we have to maintain the very lifestyles we're disrupting—we are content with frying ourselves like eggs.

CLIMATE CONVERSATIONS

about Educating for Just and Sustainable Futures



Photos by by Laura Pedrick

All semester long, we practiced striking up climate conversations and conducting more formal climate interviews. Students interviewed classmates; younger students interviewed more advanced students; and faculty and staff generously lent their time and experience for still more conversations about their climate stories and the work they do for just and sustainable futures. If you'd like to learn how to climate interview, follow along using the materials from [our class's third workshop](#).

The conversations were often electric—and they spilled over the class time we had allocated for them. I encouraged the student interviewers to focus their questions on climate education—what it is, and what it could, or even should, be. We wanted to understand others' views about the need for humanistic perspectives and on how to train our imaginations to build just and sustainable futures.

The student interviewers, in their first and second year of study at Princeton, reported that especially their conversations with older students with declared minors in Environmental Studies impacted them significantly, shaping their ideas about how they wanted to design their own course of study and their extracurricular activities.

Climate change is really disorienting. Practically speaking, it can make it hard to know what to study. More broadly, climate change disrupts foundational stories about modern progress, and it can even change our vision of how the arc of history is bending. These climate conversations—with students diving deeply into environmental studies, with political organizers, faculty, and sustainability professionals—offer prescient wayfinders amidst disorientation and dis-ease. And, they illustrate the power of science-informed climate conversations in the collective work to build and secure just and resilient climate futures.

Environmental Studies Minors Share Their Climate Stories



Katherine Holden in conversation with Angela Osaigbovo

Alex Norbrook in conversation with Camila Villavizar Gomez

Frida Ruiz in conversation with Maggie Stewart

Hannah Riggins in conversation with Michael Igbinoba

Kate Voltz in conversation with Rory Rusnak

Emily Yang in conversation with Sidak Singh

Mira Easwaran in conversation with Trinity Smith

“On the Precipice of Further Harm or Transformative Change”

Katherine Holden in conversation with Angela Osaigbovo

Katherine (’25) is a SPIA (Public and International Affairs) major with an Environmental Studies minor. She spoke with first-year student, Angela, about her personal climate story and the moments that have driven her (and continue to drive her) towards environmental action and an empathic world view.

Keywords: empathy, stratification, will-
ingness

AO: What drew you to selecting the ENV
minor?

KH: I grew up in San Francisco, California, in a family where backpacking, hiking, being outdoors in any capacity was really a central value. And so much of my childhood was spent outdoors. Within San Francisco, I grew up right on the edge of the Presidio, which is actually our nation’s only urban-centric national park and so much of my time since pre-K has been spent exploring the forests there.

So for me, focusing on the environment was intuitive. In high school, I was most interested in outdoor access and early outdoor education and how that molds good climate stewards later on in life. Because so much of my own early curriculum was oriented around experiential outdoor learning. I learned that, historically, outdoor access has been stratified along the lines of socioeconomic status and race, so it became really important to me to make sure that outdoor experiential education was universally accessible. Everyone and everything is going to be impacted by climate change in some capacity, and being able to understand how to steward the environment in a way that’s thoughtful and empathetic is critical.

That commitment drew me to curriculum building for early outdoor education through the Golden Gate National Parks Conservancy, as well as working for Bay Area Wilderness Training, a local nonprofit in the Bay Area that offers free outdoor programming as well as outdoor gear to underserved communities, primarily communities of color in San Francisco. That work has kind of just attracted my interest in environmental studies.

AO: I’m hearing you mention a lot about systemic change and systemic

issues. How have you personally been impacted by the climate both when you were younger and how it has changed now that you’re a little bit older?

KH: I think when I was younger, I was more shielded from understanding the reality of climate change, and part of the reason for that was I have always grown up in a world in which the climate was variable. Growing up in California, perpetual drought was just part of the way of life. It was what I understood the environment to be; in tandem with that, wildfires were a really consistent part of my childhood. So many of my friends and family were impacted by the Camp Fire when I was in high school as well as several other large-scale wildfires that we’ve had in the last couple of years. I remember waking up one day during high school to a sky lit red by charcoal-colored ash. I thought it was the middle of the night, and it wasn’t. It was 9 a.m. and you couldn’t

“It’s heartbreaking for me because that is not only my home, it’s my source of identity.”

see any sunlight. I mean, that was the most extreme, I think, that the wildfires got. But I say all this just to emphasize that,

really, growing up in California, one of the beauties of it is that you’re so surrounded by nature. It’s really integrated into your lifestyle in so many ways. You become more and more perceptive of the minor and major shifts happening in the environment. By the time I was in high school, it was impossible not to notice the signs of climate change. And that’s why you also see California being the forefront of activism for a lot of climate advancement of climate policies, because it is so impactful in our day to day lives in a way that I think isn’t as noticeable in some other areas in the country. I think that the fact that mobilization is coming from those who experience acute climate change first-hand speaks to the cultural salience of individualism, and ultimately, that is a barrier to large-scale, coordinated efforts to address climate change. As to my emotions about changes to the climate, I mean, I think it elicits a mournfulness and a sense of uncertainty within me, as I think it does for many. So much of my childhood was grounded in the environment and my time spent outdoors with family and friends and the connections I made. And so seeing our

forests be ravaged by wildfires, the hill-sides be blackened by ash, and to see my city flooded multiple times over the last couple of years by rainstorms that we call “atmospheric rivers” is disconcerting. It’s heartbreaking for me because that is not only my home, it’s my source of identity. So I think that a lot of the emotions that I’ve been feeling with respect to climate change are certainly like the sense of tragedy. But simultaneously, I think it’s also really motivating because I do think that we’re in this precarious moment on the precipice of further harm or transformative change towards climate benevolence. We have the technologies to be able to implement a renewable energy transition. We have the technologies for carbon sequestration. All of the groundwork has been laid to be able to really advance in terms of our climate policies. Really the last barrier that we’re facing at the moment is, in essence, willingness, so I think that is where I think there is a lot of hope that we could progress in the next few years. I think with the new administration coming in, the possibility of progress feels less hopeful for sure but I do think that the simple fact that climate change has become a central topic of debate within political discourse, is a good sign because it means that it’s gaining traction culturally. And often, shifts in our cultural consciousness precipitates change in legislation and change in our governance.

AO: Traversing both the urban and the natural environment, how would you say you envision home and how this vision has been affected by those contrasting environments that you’ve grown to love?

KH: I think the way that I understand home, it’s not really just a singular place. My grandparents are from Korea. They immigrated after the Korean War and came to the US. My dad’s side is Irish-American. My family is just kind of dispersed everywhere, so I think of home so much about the people. I evaluate it based on the people I’m around, and so like my family is my home, first and foremost. And I think that view of home has been soothing in a way. Given the variability of the climate and the environment right now, the understanding that as long as I have this certain group of people around me, I will feel like I am in my safe space, like I am home. Also though, I think I consider all of nature to be home.

Last week, I was actually canoeing out on the Millstone Delta right off the Tow Path. And it was just this moment when I realized I felt so much more at home than I have in the past semester on this campus that is really such a human-developed space. Just having that time to be out on the river again I felt like myself more than I had in a really long time. And I think that was a testament to me that regardless of the specific environment I am in, being on earth in general I find myself at home.

AO: What drives you to pursue environmental action and continue to be hopeful?

KH: Throughout my studies, Indigenous knowledge and ways of thinking have grounded my understanding of the environment. Kyle Whyte, an environmental activist, philosopher, professor, and member of the Potawatomi nation, advocates in “Against Crisis Epistemology” for multilateral coordination to address climate issues. To that end, I think that an important component of climate activism is a holistically empathetic approach that centers the understanding that everyone has a climate story, that every being has a climate experience. Some are more intense than others—I think of climate refugees and climate induced migration and of people who have been ravaged in our country by natural disaster in the last year, whether it be through wildfires in California and New Jersey, or flooding and hurricanes in the South, or drought all throughout the Midwest and West Coast. I think, you know, this is an issue that is an incredibly human issue, but it’s not an issue that ought to be viewed anthropocentrically: it’s an issue that affects all beings and earth systems. That universality is ultimately what drives me.

AO: What works do you find most impactful or have mostly shaped your current ethos and environmental activism?

KH: I’d say *Braiding Sweetgrass* is one everybody should read. Reading Robin Wall Kimmerer was just such a turning point for me. I first read her book first in Yosemite and was struck by how vividly and lovingly she speaks about nature. She writes in this unique narrative style that occupies a liminal space between academic authorship—with her background as a botanist—and lyrical prose abounding in love, kinship, and the interconnection towards every living being—ideologies she identifies as cen-

tral to her culture as a member of the Potawatomi nation. For me, reading her work was this sort of “aha” moment. I felt like I had found a worldview and line of scholarship that resonated with my feelings towards nature and beliefs about the world around me. Professor Kimmerer actually came to Princeton last semester, and I got to meet her and that was just really big for me—and for my dad too. I got him a signed copy of the book because we had read it together in Yosemite, so that was really special. *The Trouble with Wilderness*, by Professor William Cronon is another pivotal work. Cronon argues that the US-designated wilderness system offers a really narrow conception of what “wilderness” and “true nature” are. It operates on this nature-culture divide in which urban centers and human culture are antagonized to nature. This is counter to indigenous knowledge which frequently understands humans to be an extension and a part of nature. To reach a wilderness designation, by law, the land in question needs to be “pristine,” “undeveloped,” and “untouched by man.” The result is that the Wilderness Act promulgates an illusion of “pristine wilderness” while creating barriers to accessing wilderness along socioeconomic and racial divides, because of the cost of gear and transportation to national parks, because of our nation’s history of redlining, indigenous forced removal, and national park segregation. The result is that we don’t view ecosystems adjacent to urban environments as genuine nature. When

we aren’t able to apply the tenants of conservation at home, how are we possibly going to combat climate change? Reading *The Trouble with Wilderness* really helped me to understand how our historical institutions have impacted different communities’ experience of the environment today and the stratification in that as well. On a personal level, I think it was pivotal for me because I grew up hiking and backpacking through local state and national parks, and I never saw another woman alone. I definitely never saw another Asian woman on trail. Growing up, that was always something that I thought was a strange coincidence and, kind of like a pebble in my boot as I kept hiking on, it started to blister, and I became acutely aware that this absence is actually part of a more structural phenomenon. Personally, Professor Cronon has also empowered me in my nascent environmental research. In my high school research pursuits, I emailed Professor Cronon in search of an excerpt he had written in his book *Changes in the Land* not thinking he would get back to me. He did, not only directing me to it, but also pointing me to another work that has shaped my research: *Tending the Wild* by M. Kat Anderson. That interaction meant so much to me.



“I Came to See That Science Wasn’t Actually Where the Fight Was”

Alex Norbrook in conversation with Camila Villavizar Gomez

Alex (’26) is majoring in History and minoring in Environmental Studies. He is the co-founder and co-coordinator of the Princeton Sunrise Movement that advocates for the university to meaningfully address the climate crisis.

Keywords: climate justice, moral dilemma, salvaging, pragmatic hope, staring into the abyss, triple injustice

CVG: Why did you decide to pursue the EMV minor? What do you like most about it?

AN: The environment has always been an interest of mine. I want to be tackling the climate crisis and building political power to support a just energy transition. So, I’m taking courses pretty strategically to understand systems of power that have led to the crisis that we’re in. There’s some really interesting science-based courses, architecture, urban studies, but I’m taking more of the politics, history, sociology side. The coursework I’ve been doing has been meaningful as I assemble the tools I will need to think about the broad environmental questions of our time.

CVG: How would you say it intersects with your major—because that’s a very cool combination!

AN: The most generic perspective on environment and history is what’s called environmental history, which is a subdiscipline that recognizes and foregrounds the role that environments play in the creation of history. So, we are understanding the factors that we might perceive as passive have agency in the histories we see. For instance, I’m in a class on environment and war, and it’s looking at how the environment interacts with society and with war. It creates a nexus: war on the environment affects how the environment interacts with the way people wage war. I would also say I’m interested in a lot of the political history that has led to the global inequalities we see today. The climate crisis is deeply rooted in a long historical progression which is very much linked with broader histories of colonialism and capitalism. I was learning in my Mediterranean history class that a copper mine in what’s now Syria is completely desolate, and that’s a copper mine from Roman times that’s still polluted today. The climate crisis is a truck of history barreling at us. In some ways it’s terrifying because how do you stop this massive accumulation of decisions that has led to where we are now? But for me, it also takes the edge off. We’re going up against this big history. It’s okay we’re kind of screwed. Our generation is the one left to fix this, but we are not totally at fault for the society that we find ourselves within.

CVG: It sounds like your academic interests help you ease some of your guilt, would you agree with that?

AN: Yeah, while also not lessening the responsibility that we must reduce emissions.

Everything we’re doing now is departing from where we’ve come from. That’s inspiring. At the same time, there’s many factors to why we didn’t do the best job besides we didn’t try harder.

CVG: That’s a very new perspective. In that vein, what does climate justice mean to you?

AN: Two summers ago, I was doing an HMEI internship to produce an audio documentary series about two new lithium mines that are being proposed in the US. Lithium is used for electric vehicles, and lithium mining companies are saying this will solve the climate crisis while we live our lives the exact same way but with a battery in a car. These narratives are used to essentially steamroll local community opposition. One of the mines that’s being proposed is in Thacker Pass, Nevada where a few of the local indigenous tribes in the area have held it sacred because there was a massacre during the 1800s. Today, that’s being disputed in the federal government and the mining company has hired an archaeological firm which argues there’s no evidence of it. But this is a clash of oral history versus recorded history. Other concerns include the bringing in of man camps, which have been

“fighting for every tenth of a degree means saving lives.”

known to be correlated with increased rates of kidnapping, rape, murder of especially indigenous women in the local areas, as well as the depletion

of water table and the impact on crops. But they have no power to stop the mine because of ridiculous mining laws from the 1800s that prevent them launching a more grounded defense. Also, mining company automakers are using the language of the energy transition to justify this exploitation. This is a triple injustice. On one hand, you’re putting an infrastructure project in vulnerable and less powerful communities. That’s environmental injustice. You have the epistemic violence of erasing indigenous history by saying that a massacre didn’t happen here. And then you have the climate injustice piled on top, which is using the narrative of energy transition to justify this project in a way that it might not have otherwise been justifiable. Of course, we need some lithium for the energy transition. But do we really need lithium for things like the cyber truck? Companies are portraying this transition as if we can swap out internal combustion engines with batteries, and it’s all fine. That isn’t actually the case. It could be, but that probably would lead to more cases like Thacker Pass than if we chose a system of high public transport use and infrastructure. So, climate justice recognizes that if you want to have an energy transition, you need to bring communities on board and get their consent. Not just in the consultation of these infrastructure projects but achieving energy transition through community support, enthusiasm and consent. Maybe there’s another reality where the mining company

is like, “All right, we’re going to do this, but only if you guys consent. And you will get tangible benefits like profit sharing and employment not payouts like a new road or a school.” If you give local communities more control over the process rather than trying to tap down and dismiss opposition, you can get organic support for the energy transition that will ultimately be more durable than if you’re having to fight every community in which you want to build a wind or solar farm.

CVG: I love what you are saying. What does a term like “climate storytelling” mean to you? And would you mind sharing your climate story with us?

AN: On climate storytelling, I think it’s a way to make an affective climate crisis narrative that people feel more engaged with—and maybe even more empowered to tackle. About my climate story, I was born in 2003 in England, and the mainstream environmentalist narratives resonated with me. When I was a kid, I wanted to invent a thing you could put over a car’s tailpipe, and it would transfer the carbon dioxide into oxygen. I wanted my contribution to be scientific because that’s where I saw progress. And gradually, I came to see that science wasn’t actually where the fight was. Sure, we may invent fusion and the price of solar power is going down, but it doesn’t matter if your solar panel is 0.00003 dollars per kilowatt if you’re never going to put it on the ground. Many people arrive at climate work through a big moment in their life. I don’t really have one of those, and I consider myself privileged in that I lived a pretty normal childhood disconnected from a lot of climate impacts. I’m grateful for that. My process has been more gradual. Growing up, learning, becoming more aware of the deep histories of racial oppression, of colonialism, and resource extraction, and the dual but still separate natures of the climate crisis and the environmental crisis, led me to see that a lot more is wrong with this planet. We cannot tackle climate alone. Also, I got involved in the Sunrise Movement in high school and now I’m one of the founders of Sunrise Princeton. I’m trying to create more robust research programs that aren’t accepting fossil fuel money and trying to call attention to the insane stuff that happens when big oil companies fund your climate research and the damage that does, while also calling attention to the fact that we own a fossil fuel company called PetroTiger. We got 33 million dollars from it last year. I see myself doing organizing and policy work during the rest of my time at Princeton and beyond.

CVG: Would you say that topics like climate justice and climate storytelling are being addressed in your curriculum?

AN: Princeton has some really strong professors who are focusing on climate justice and environmental justice work. I took Professor Nixon’s course on environmental justice through literature and film last spring.

There was a lot of reading about past struggles and thinking about the frame of environmental justice through different case studies. That was pretty meaningful. We weren’t doing storytelling per se, but my final project was a narrative creative nonfiction project about train transport. There are definitely opportunities within the ENV curriculum that one can engage with these questions.

CVG: Within your curriculum, what is a main thread or emphasis that you usually see in your classes?

AN: What I’m kind of impressed by is how there isn’t really one. In my freshman spring, I was taking a course on energy transition and Net Zero America project. How and where will we build what? That was very business, policy, private sector stuff that I wasn’t such a big fan of. And then I go to Professor Nixon’s class where we learn about the ways in which a environmental and justice leader in Kenya created a grassroots movement to fight against an authoritarian regime and regenerate a lot of the ecosystems destroyed during the Mau Mau rebellion. That’s two very different perspectives and approaches. The first one is very science-oriented and it was argued the solutions will be technical. And maybe we can involve storytelling to make sure we get permission to build where we want to build. There’s this kind of thread in the minor that accepts more of a Western epistemology and then maybe another sphere that is more questioning and exploring alternatives in new and interesting ways that I see as more adept at being able to tackle the climate crisis, or at least, with some of the Western methodologies.

CVG: Would you say that there has been any course so far that has taken an interest in what indigenous voices have to say about climate change?

AN: Yes, my writing seminar on disrupting nature. One of the topics we were looking at was Standing Rock and my paper was exploring alternate ways of seeing agency and non-human agency in climate fights. I think that’s vindicated by my current ENV course, Environment and War, which is seeing how the climate is an active agent in the way we understand our societies, and how the Western perspective treats it as if it’s supposed to be ambient. Challenging that notion has been a part of some of my courses at Princeton.

CVG: How is hope and hopelessness discussed in your ENV classes? Are they central or not? Are they discussed?

AN: In terms of hope, I talk with my professors about it outside of class. I think in class, we’re mostly addressing the facts on the ground. And I accumulate knowledge to maybe gain or lose hope. I think the course on energy transition solutions sounded potentially hopeful, in the sense that at least there is a way we could get to net zero. But what are we losing along the way? That project would probably be supportive of the lithium mine that has a lot of environmental justice concerns. Sometimes hope can be there, but it’s

also a type of hope that is hollow because it doesn’t center justice. At a certain point, you have to weigh in, is it worth it? Which is a terrible way of looking at the world. Is it worth sacrificing communities to lower emissions? And who do you sacrifice? The environmental justice perspective says no community can be sacrificed. But is that feasible in the time we have? Is it ever justifiable to continue oppression if it means potentially saving people in the future? But then we also need to recognize how that narrative can be weaponized.

CVG: Do you think it would be productive to have conversations in class about hope and hopelessness? Would it relieve some of the tension or maybe it would be good to know what other people are thinking about this?

AN: I think making it personal and making it affective is important. But hope is only possible through action. I also think there’s a very positive understanding of hope that can pacify one’s contribution. But I feel the most hopeful about the climate crisis when I am at a protest, or I am fighting rather than just assuming it will work out. I don’t know if there’s a natural problem in the way people see hope.

CVG: Would you say that your work at the Sunrise Movement gives you hope?

AN: Probably should do. I guess my personal philosophy is that it’s gonna be bad. It’s gonna be like 3.1 and hundreds of millions of people rely on our current balance. But every tenth of a degree we reduce warming will at least save some people. We’re not gonna stop the climate crisis or even suffer from a mild climate crisis. It’s gonna be really bad in ways that we do not fully know, because we cannot comprehend the agency of the global system. But in my work, fighting for every tenth of a degree means saving lives. We are not going to get the perfect world. But at least saving as much as we can is worth

saving.

CVG: You mentioned thinking that we can’t stop the climate crisis, but we can probably save more people. What does the future look like and how has your major and your minor helped you envision a future?

AN: I think my major or minor has given me a more realistic view of the future. Aspirationally I’d like to reimagine the way we live, the way we see a worthy life, the way we relate to each other socially, economically, politically. But a more realistic vision is pretty grim and that’s the story I really see for us. We’re not going to do enough. Well, enough is so relative, but I see we are critically insufficient in every mark. And I don’t see that changing until it gets bad but by then it’ll be too late.

CVG: How do you deal with that? That’s a lot of mental stress.

AN: I guess a few ways. One, I feel like I’m in a very privileged position. I know my life will not be in danger and that’s probably kind of horrible to think that I can live my life as if it’s not going away. I recognize that’s a privilege that I have as a person of this university, of this identity, of this everything. What gives me comfort is that everything we can do to salvage it is worth salvaging it. I didn’t cause this crisis and as long as my contribution is somewhat positive, I think that’s meaningful. I guess I’m just going to be depressed, but hopefully motivated enough to continue fighting.

CVG: In that sense maybe you’re not materially in danger, but maybe mentally affected by the climate crisis.

AN: Yeah. I am very much affected by the prospect of other people being materially in danger, but that is not new. The U.S. has put a lot of people in danger already and killed them without this environmental crisis. It’s not like we haven’t been in this situation before.



“Hope is something that you have to have — you have to manifest it within yourself”

Frida Ruiz in conversation with Maggie Stewart

Frida tackles the role of education in creating a livable climate future, and she discusses climate solutions at the intersection of engineering and environmental studies. At Princeton and in the wider world, she is building community and cultivating hope and action for the future in an often overwhelming present.

Keywords: Learning, Hope, Engineering, Biomimicry, Future, Action, Environmental Justice

MS: What are some pivotal moments in your life that have shaped the way you view climate change and, therefore, led you to study and be involved in environmental issues at Princeton?

FR: Ever since I was little, I have been interested in nature and animals. My mom reminds me about how I would hate to go indoors, and I would spread my arms and legs so as not to go inside. Or she would tell me about how, at the zoo, the horses and llamas would give me kisses. I was just always a big fan of animals. And, for a while, it was just that. But then there's one very pivotal moment in my life that changed everything. It's such a simple moment, but sometimes it is a simple moment that really makes a difference. I remember being in first grade and waiting for my parents to pick me up. While waiting, I saw that there was a bunch of litter around the field at the back of the school. And, you know, just seeing garbage everywhere was very compelling. I wondered why. Why are people just leaving garbage around in nature? Even at that age, I thought it was ridiculous, even though I couldn't fully express it. So I started picking stuff up by myself, but then I saw my friends playing soccer nearby, and I was like,

guys, can we do this together? So, we put together a team to pick up stuff. As a group effort, we were able to clean that part of the field much faster than just doing it myself. After that, I was picked up by my parents. But I remember thinking there were a lot of problems related to the earth, even at that age. Even though I didn't fully understand how large these problems might be, I just knew even then, seeing that. I felt like if that's a problem I am already seeing, then maybe there are other environmental problems I don't know about yet. And from there, I was just super interested in learning more.

My dad and I would watch a bunch of nature documentaries together when I was in elementary school. I just started to research these different environ-

“it's important to remember your motivations. Why are you doing this? Why are you fighting for this, even though it does seem like an uphill battle?”

mental issues more. When I was in middle school, I wanted to be an environmental scientist and continued to get more and more involved.

Once I was in high school and college, I actually had more opportunities to get involved.

MS: Have there been any specific courses in your Princeton climate education that you've taken that have really impacted you, in and outside of the classroom?

FR: There was a conservation biology class which had different guest speakers each week. One week specifically stands out, when we had to read about the Indigenous and human rights violations that mining companies were perpetrating, but also those same violations occurring in big environmental organizations like the WWF. Learning the perspective of people who are be-

ing harmed by what's supposed to be an institution to help them or to help our planet was honestly quite horrifying to read. I was really, really upset by that. It led me down this whole research spiral, where I read a report from conservation companies that admitted to some human rights violations but justified them for the sake of our planet. Like, yeah, we're kicking these people out. We're not considering them at all. But it's ok because we are doing good work otherwise. The guest speaker emphasized these themes as well as my readings, which made me more determined not to be one of those people in my future work who just pushes the local people aside because that's not really conducive to actually making a change. Because, oftentimes they know what's best. They know their lands the best. They know how everything works the best. And it just makes so much more sense, scientifically and socially, to collaborate with them. But this, like reading this and reading how even environmental institutions that are supposed to help our planet and people are part of this too, really instilled in me that my work will 100% be for the people. It will not be trying to see them as lesser than or as an inconvenience to us solving the earth. So that was a very big moment. When taking these classes, I'm glad that some of them cover these various perspectives and address the larger systemic issue rather than narrowly focusing on one aspect.

MS: How has your education at Princeton shaped your plans for your career and life outside of Princeton? And how do you think it could better support you going forward?

FR: I am very interested in the intersection between engineering and conservation. So more specifically, that might mean that I help develop technology for conservation or ecological restoration purposes.

And a lot of that is not just like the technological aspects to know how to design things or put things together, but it's also understanding the issues behind it, knowing the fundamentals of how this will help this system run better. Why is this action going to help our planet? We need to get in contact and collaborate with current efforts, whether through nonprofits or NGOs, actually develop those relationships and make sure that we are helping these people and doing what they are requesting. I think that's also really important, and that's where I think having an environmental studies background will also be very useful in my future career. Biomimicry is an engineering technique Princeton could highlight more often. Oftentimes, you see that what is being done in nature is more efficient than what humans might have thought otherwise. There are many examples of that; one, in particular, is the bullet trains in Japan or in other places. They wanted to solve the issue of speed and efficiency and prevent sonic booms from previous designs. So they looked at the Kingfisher bird and how it would go into a body of water to capture its prey and would do so so that the waves were significantly minimized so the fish wouldn't sense them. From there, they could capture their food a lot more efficiently. Once engineers incorporated the bird's structures and techniques into the train, they were faster and quieter. So it's super cool to see what nature is doing. From there, see how we can apply it in a human sense. I hope that Princeton will focus more on that crossroad between engineering and the environment. Right now, it seems to be focused on energy or tracking CO2 emissions, which are both useful and important. But there is much more to consider, especially when it comes to helping address our biodiversity crisis. However, Princeton added a biotechnology class, which is a good start. I hope to learn more about the wider applications of engineering. I would personally have loved to learn

about robotics in a natural setting. So, not only how to build robots but also the considerations needed to have robots work in natural terrains. I have to figure out those things right now for my senior thesis. So, knowing that information would have been helpful.

MS: How do you hope to see Princeton address climate change in the future?

FR: Firstly, start by divesting from fossil fuels. That's one very important thing. As an institution as powerful as Princeton, setting that example can really make a difference. Oftentimes, people think that actions from an institution such as Princeton do not matter, but being able to set a standard is important. I would love to see where exactly their money is going and be able to feel proud. Aside from the obvious, such as divesting, there are a lot of cool initiatives that they're doing to address environmental issues, like the geo-exchange or the S.C.R.A.P. lab. They should continue to expand those things. They should work on tackling things from a systemic lens, especially as a very influential institution. They have a lot of power to actually make a difference. I also think that aside from how to improve themselves as a campus, they should work to improve Princeton townships and uplift grassroots efforts.

MS: Has the environmental studies minor or Princeton in general helped you envision a future where the climate crisis is under control, or has it made you less hopeful about the world's future?

FR: I feel like it's not my minor; it's just society, like our surroundings, that has made me—I don't want to say less hopeful

because I really do think fundamentally that hope is something that you have to have—you have to manifest it within yourself. You can't rely on feeling hopeful based on external surroundings because then you won't feel hopeful. Reading things such as that report from the UN about how we are headed to 3.1 degrees warming, it's easy not to feel hopeful at all, especially considering circumstances that have happened recently. But it's important to remember your motivations. Why are you doing this? Why are you fighting for this, even though it does seem like an uphill battle? So, I really do think that hope has to come from inside. It has to come from you. It can't come from anywhere else because that's the only way that you're actually going to make a change or that you're going to be pushed to make a very powerful change. I think it's hard to actualize something without hope. I think community building is essential for that. I think having a hub of people you know who also feel the same way and who are working on this together makes it easier, whether that be groups at Princeton or in other communities. As someone who's involved very heavily in the sustainability spaces at Princeton, I do feel like I have, like, you know, a group of people that I know that are also fighting the fight who I can relate to and helps me to feel more hopeful.



“It’s Not Just About Warmth, it’s About Extremes”

Hannah Riggins in conversation with Michael Igbinoba

Hannah, in her second year at Princeton, intends to major in SPIA and minor in environmental studies or sustainable energy. In her discussion with Michael, she shared her evolving awareness of climate change through personal experiences and emphasized that climate change isn’t just about warming but also involves intensifying extremes. Her environmental science studies have driven her to take on leadership roles and advocate for actionable solutions. While she’s feeling fear and hope about the future, she emphasizes the importance of balancing individual actions with broader systemic change, addressing misconceptions, and improving climate communication to inspire collective action.

Keywords: Misunderstanding, climate change, urgency, humanities, shifting, proactive

MI: Can you share any significant moments or experiences that first made you aware of climate change and its potential impact? How have those moments shaped your personal perspective on environmental issues?

HR: This summer, I was in Amsterdam for an internship, and seeing how the Netherlands operates was a real eye-opener. The country is five meters below sea level, and for decades they’ve been managing the constant threat of flooding. Their canal systems, levees, and seawalls are a way of life. Over there, climate change isn’t something to debate; it’s just a fact. That experience made me realize how behind we are in some parts of the world. If we don’t act now, we’re head-

ed for the same challenges, but on a much larger scale.

It showed me how proactive policies and technology can make a difference. I came back with a stronger sense of urgency and focus on how we can implement solutions, not just at the government level but also in how communities can prepare for what’s coming.

MI: How has climate change directly affected your home, family, or local community? Are there particular environmental changes or climate events that stand out in your mind?

HR: Even in New Jersey, I’ve noticed how seasons are shifting. This year, summer dragged into November with temperatures in the 80s, and fall barely existed, it felt like we jumped straight into winter. That’s not normal. People don’t realize how much these changes are intensifying, even if they seem small.

And then there’s winter. The snowstorms we’ve had in recent years are way more severe than they used to be. Seven feet of snow is not normal. These shifts are affecting everything, from agriculture to infrastructure, and people are still brushing it off as “weird weather.” But it’s not. It’s climate change in action,

and we’re living it now.

“These shifts are affecting everything, from agriculture to infrastructure, and people are still brushing it off as ‘weird weather.’”

MI: What role has studying environmental science played in shaping your actions or sense of responsibility regarding climate change? Have you taken any specific steps or actions to address it?

HR: Taking environmental science classes has been huge in helping me understand the systems behind climate

change. It’s not just about temperatures rising; it’s about how the entire system is shifting. For example, understanding why tropical cyclones are getting more intense, even if their numbers aren’t increasing, has made me think differently about the urgency of the problem.

That knowledge has pushed me to get more involved. I’m running for sustainability chair in our student government because I believe leadership at every level matters. It’s not just about what we learn in class, it’s about taking that knowledge and applying it in a way that drives change, whether it’s policy, grassroots organizing, or even small everyday decisions.

HR: Has learning about climate change affected your outlook on the future, either personally or for the planet as a whole? What emotions does this bring up for you?

MI: Honestly, it’s a mix of fear and hope. Sometimes it’s overwhelming, thinking about what kind of world future generations will grow up in. Is it even ethical to bring kids into a world that’s so overpopulated and environmentally unstable? But then I remember the people I have, their passion, their drive to fix things, and that gives me hope.

I also think about the balance we have to strike. It’s easy to spiral into thinking every decision has to be perfect, like, “I can’t drive five hours because it’s bad for the environment.” But I’ve realized it’s about doing the best we can with the choices we have now while staying focused on the bigger picture.

HR: If you could address one misconception about climate change, what would it be, and why do you think it’s essential to clear up this misunderstanding?

MI: The biggest misconception is that climate change is just about global warming. People think, “Oh, it’s not warmer here, so it’s not real.” But it’s not just about warmth, it’s about extremes. Winters are harsher, summers are longer, and places like the equator are getting wetter while deserts get drier. It’s not normal to have seven feet of snow or 80-degree November days.

This misunderstanding leads to inaction because people think it doesn’t affect them. But everything is connected. Just because it’s not your house flooding doesn’t mean it’s not happening elsewhere. If we want people to act, we need to communicate science better and show how these changes are already affecting our lives.

“it’s about taking that knowledge and applying it in a way that drives change, whether it’s policy, grassroots organizing, or even small everyday decisions.”



“Everything You Do Will Be Affected by the Radical Increase in Unpredictable Weather”

Kate Voltz in Conversation with Rory Rusnak

Kate and Rory discuss personal climate stories, what inspired Kate to become an environmental studies minor, and how her decision intersected with her extra-curricular work. Kate also shares her hopes and worries for the climate under the next Trump presidency and points to the very real legislative options on the table at the state and municipal levels.

Keywords: Wildfires, Environmental Studies, Greenwashing, Unpredictability, Climate Legislation, Flexitarian Diet

RR: In this class, we talk a lot about climate stories, the personal stories we have about ourselves and our experiences with the changing climate. Do you have a personal climate story that you can share?

KV: The threat of fire in my home state of Oregon has gotten so much worse in my lifetime. My mom worked in the Forest Service and was always dealing with emergency funds running low. There would be entire weeks where they would tell people not to go outside because the air quality was so hazardous. I remember in 2020 walking outside and seeing my yard covered in ash, like snow. It hasn't been as bad the past couple of years, but the smoke is still bad. I was in the mountains this summer, and it was definitely noticeable. Wildfires have gotten worse, but in Oregon, it's not as bad as California, since Oregon gets so much rain. Eastern Oregon, though, definitely has drought problems, which makes the fires worse. Fires typically start as early as May or June, but they're worse in Au-

gust and September, when it's been dry for months. By then, everything is like a tinderbox.

RR: What inspired your decision to become an environmental studies minor at Princeton?

KV: My interest in Environmental Studies has been a happy accident. I didn't come in thinking I was going to do that. I applied to a lot of schools as a Politics-English double major and switched to SPIA once I got here. My freshman summer, actually, I worked for an environmental and racial justice nonprofit, the Leadership Council for Justice and Accountability out of Fresno, California. I was more interested in the racial justice

“I think this is true in general—Princeton talks a big game, whether it's about environmental studies or net zero, or even about being the future leaders of public service, but then half the graduating class goes on to work in consulting: a lot of people sell out.”

component because I wanted to do public interest policy, but the environmental portion ended up being really interesting. We mainly focused on issues like concentrated animal feeding operations, industrial pollution, and highway zoning, which are unsexy issues but very important for environmental justice! So, I thought maybe environmental justice was something I'd be interested in. Then, I took an ecology class here, EEB 321, with Robert Pringle which was a SPIA elective, and I loved it. It connected me to my roots. I've always liked being in nature, but I didn't really see myself going into it. It was a species interaction and biodiversity class. I loved every lecture. That's what made me think I wanted to do an Environmental Studies minor. The next semester, I took two environmen-

tal classes. I was very gung-ho about it, so I took Environmental Law and Moot Court and Religion, Ethics, and Environmental Justice. Both were fantastic. Last summer, I worked in the Environmental Enforcement section of the Department of Justice, working with teams involved in cases like the East Palestine, Ohio train derailment settlement. It's interesting to see how environmental justice is being incorporated, since a lot of pollution is concentrated in disadvantaged areas.

RR: Princeton prides itself on its “net-zero by 2046” commitment. How do you feel about Princeton's environmental approach generally?

KV: I mean, to some extent, it's greenwashing, right? Princeton has so much money, and they undid divestment a month ago. I think this is true in general—Princeton talks a big game, whether it's about environmental studies or net zero, or even about being the future leaders of public service, but then half the graduating class goes on to work in consulting: a lot of people sell out. Holding Princeton accountable as much as possible is key. I think a big part of it is getting alumni to hold them accountable because that's where they feel the pressure, from the purse strings. I think Princeton is a bubble in general and a lot of people are checked out. They may be interested in doing something with their career, but Princeton is so isolated—other than being near New York or Philly—that there isn't enough of a community around us to support these massive campus movements. We have no law school, no business school, no medical school. Yes, we have grad students, but there are very few of them, and they're often leaders in movements, which is helpful because they're older and have more resources. But Princeton constantly kneecaps its own.

We do have centers like the Andlinger and High Meadows Environmental Institute that are doing a lot of important work. I think Princeton likes to put those on their postcards, but really centering those, by expanding PICS opportunities for environmental studies and having professors encourage their students to go into public service, is important. And also reminding students that, no matter what their career is, it will be affected by the climate crisis: everything you do will be affected by the radical increase in unpredictable weather.

RR: Moving outside of the “micro” of Princeton, following the election—what are your expectations for climate policy on the domestic and local level following the election?

KV: I think climate is one of the things I'm most worried about for the next administration. A lot of climate action relies on agency decisions, which were weakened by the West Virginia v. EPA decision and are heavily dependent on who's in charge of the executive branch. The Inflation Reduction Act is a congressional act, so it should endure, but in terms of executive orders, a lot can still change. For example, the previous administration pulled us out of the Paris Accords. If we don't take further action, we're looking at a 3.1°C increase, which is double what we'd hoped for. That's obviously depressing, but there's still room to adjust.

I'm worried about what four years of federal inaction will do, but states like California have a lot of power, especially with its consumer base. California is a trendsetter for auto regulation, and states like New York also have some regulatory influence. The EU's approach to data and electronic regulation shows that states can have power in other areas as well. As for executive agencies, we'll have to wait and see.

But in terms of local communities, I

think, for instance, what companies they allow to zone in their neighborhoods is important. Local and state governments have a lot of power. I mean, we saw New York basically kick out Amazon when they were trying to come in. Local communities have a lot of power in terms of who they allow into their towns, both in terms of actual water, air, pollution and climate. Local communities have a lot of say about zoning in terms of where they put their highways, how big they make their highways.

RR: Finally, if you had a magic wand, what climate-related actions would you take?

KV: I think that this is not going to happen in the next four years, but maybe in two years if Congress has a radical shift: having a unified federal climate relief plan that is multilateral with other countries could be important. Although I'm focused more on domestic policy, I know it's important to have a broader global conversation about climate justice in terms of who emits what, who deserves to emit what, and who is paying the biggest price and being hurt the most by it. We absolutely need an actual climate bill, like a Green New Deal, and actual binding climate emission

standards. There needs to be industrial change as well because polluters get off scot-free so much. Also – and this is both climate and disposal related – we have to rethink what we eat. I worked on animal agriculture both of the last two summers. Cow manure is a very unsexy issue, but agriculture produces 7 to 10% of our CO2 emissions as a country, and a lot of that is from cattle. I'm a pescatarian. Realistically, if I were fully ideologically consistent, I should be vegan. But I think we have to rethink how we eat in order to deal with both climate change. It's difficult because the ten richest people are taking private jets across the world every day. I think there's a balance. We need more public transit, high-speed rail, permeable pavement, better city design, and walkable cities. We need all of this. And we need more Americans to be flexitarian, eating less meat. In terms of the animal agriculture industry, that's where change on the individual level matters because every American consumes animals.



“A More Global Perspective Is the Need of the Hour”

Emily Yang in Conversation with Sidak Singh

Emily (’26) shares their story of climate action and how their environmental awareness developed through personal experiences, academic growth, and community connections. We talk about how to balance hope and worry and consider powerful grassroots movements and the role of local and global actors in tackling climate challenges. We highlight the importance of creative sustainability approaches and elevating diverse voices as imperatives to foster climate justice.

Keywords: Leadership, Grassroots Movements, Spread Awareness, Sustainable Solutions, Amplifying Voices

Sidak Singh: How did your upbringing shape your views on environmental issues, and how has your perspective on climate change evolved as you’ve grown older? Also, what major did you select and why?

Emily Yang: I can start with the story that I typically tell when I’m asked about environmental issues. I grew up in the mountains of western North Carolina, which are very beautiful. It felt like growing up surrounded by nature. There’s a place in my town called the Green Energy Park, a glassblowing and ceramics workshop built on top of an old landfill that powers the workshop with landfill gas. Growing up, I saw people who combined a love for art and the environment. In high school, I was heavily involved in environmental clubs and held leadership positions in the Student Environmental Education Coalition. As a sustainability project leader, I would

run seminars and sustainability projects in my school, which involved making websites to create awareness about individual sustainability. As I grow older (I’m now in my third year of college), I have come to see climate change as a harsh reality, like an impending doom waiting to be unleashed. I’ve focused on learning about environmental science, sustainability, and implementing sustainable practices. However, over the years, I have felt a growing sense of guilt and fatigue. At Princeton, there isn’t a dedicated Environmental Studies major. At other colleges, I would have majored in Environmental Studies, but here, environmental education is more interdisciplinary. As it relates to my major path, I was rotating between a couple of different areas, like Ecology and Evolutionary Biology, but I was not interested in pursuing biological research as independent work or a career. I ultimately chose Electrical and Computer Engineering because I enjoy studying circuits, systems, and signals, all of which have environmental appli-

“I believe this is the key question in imagining the climate of the future: how to manage and navigate both hope and worry simultaneously.”

cations. I also considered English, but its curriculum doesn’t really foster an application to problems, and ultimately it was not a field I was truly interested in going into either.

ss: What role do your personal relationships or connections to your

community play in shaping your feelings about climate change? How do they influence your outlook for the future?

EY: The communities that I’ve been a part of strongly shape my feelings towards nature and climate. My high school friends were deeply passionate about environmental issues, and we of-

ten worked together on sustainability projects. I find that when we all work collectively on some issue, we are likely to find better and more sustainable solutions. I am aware that groups like the Princeton Conservation Society and Princeton University Energy Association have done work to reach out to the Princeton University community to spread awareness about energy efficiency and climate change issues, but I myself have not been involved with these efforts. In my own communities, I believe that we are all on the same page on climate change issues, but we don’t always discuss openly. We need to build even stronger connections and solidarity to make significant, lasting changes in the society we live in.

ss: We often discuss hope and worry and how these feelings can be intermixed. How do you manage that mix of hope and worry that comes with thinking about climate change, and does being at Princeton impact this?

EY: I believe this is the key question in imagining the climate of the future: how to manage and navigate both hope and worry simultaneously. I don’t think I do this particularly well, because it gets tricky. I am quite optimistic that there will be a brighter future, but the journey will be a lot tougher than it presently appears. The kind of hope that drives people to take action is one that I have struggled to find. I have to mention here that I have a friend in my hometown who is very involved in the recovery effort for the regions that were hit extremely hard by Hurricane Helene. My other high school friends have also organized multiple relief efforts for their communities. At Princeton, I am a part of the student theater, which fosters a nice community. I notice that change happens here at Princeton through coalitions like Divest Princeton (now Sunrise Princeton) movement.

I have come to understand that it is this community action that can drive change.

ss: You say that for some students, movements like the Sunrise Movement can make them feel like part of a meaningful community. However, you have personally not felt that as much. What do you think needs to change so that you can feel supported in these groups?

EY: Well, for those students currently in grassroots movements to hear, I think that there should be more incentive for new students to join, participate, and refine their groups. It would be great to allow newcomers to shape the movements in unique and transformational ways. There could also be more incentives for student participation and better institutional support for grassroots efforts. I especially wish that the University was more open to listening to movements like these. For instance, Princeton should be taking greater action based on students’ dissent or input.

ss: What role do you see yourself playing in creating a fairer, more sustainable future? What do you think the responsibilities of places like Princeton are in this?

EY: I think Princeton should be committed to fostering a broader understanding of critical issues, including sustainability, equity, diversity, and accessibility. It would provide an environment that fosters the all-round growth of its students. These key components are essential for any meaningful project or discussion. In fact, I notice that students come in with their set of values and leave with a broader perspective on almost everything. Meeting and learning from people at Princeton who really care about the environment, climate change, and sustainability has profoundly shaped my worldview on many issues. And this is what happens

to everyone who comes here to study. They get to learn a lot from their peers and colleagues. The courses and clubs here also play important roles in enhancing knowledge and communicating a balanced global perspective. Aside from great learning experiences, these facets allow students to better contribute to sustainability in the future through action-driven approaches.

ss: How has your education been so far? How has it particularly influenced your thoughts on climate justice, and what areas do you feel need more focus to address climate issues effectively within your education?

EY: I actually feel pretty strongly about this. Particularly at Princeton, I think there should be more focus on global environmental issues in the curriculum. A lot of environmental studies courses at Princeton are extremely focused on the US, but climate change and environmental issues affect all communities globally. A more global perspective is the need of the hour, along with a balanced perspective that incorporates both the global and local impacts of climate change we see today. We will truly benefit a lot from learning about both US and non-US perspectives. Courses should also more deeply explore the human and anthropological sides of environmental studies. I would say climate justice is recognizing how climate change (in particular in this case) affects different communities and places differently. This means that some are affected more and others less. People lose their livelihoods due to changing climatic conditions, and recognizing these disparities is crucial.

ss: As we wrap up this conversation and with recent political events in mind, what are your thoughts on the future of climate action? What are your excitements and concerns about what lies ahead?

EY: I am hopeful that decisions will still be made with departments and checks and balances. After reading a little bit of the election news, like who has been nominated to offices, I am a little surprised by the picks. I find myself thinking about whether it will be better or worse. We should find ways to let our governments know our opinions, such as through protests, writing letters, or voting. However, there are difficulties with our system which often makes it feel unresponsive. Sometimes, it feels like our voice isn’t heard — like it doesn’t go anywhere. We need more people to raise their voices and build a movement around a meaningful cause. Only then will our voices be heard.

Meaningful action often feels easier at the local level, like in our tight-knit communities, where efforts seem more tangible. But at a larger scale, it can feel like the work is going nowhere. This is why change needs to be affected both bottom-up from a local level and top-down from an institutional level. Building movements around shared causes is essential for amplifying voices and driving action at all levels.



Mira Easwaran's Climate Story, “I Didn't Know This Was Happening to Me.”

As shared in conversation with Trinity Smith

Mira ('26) shares how a friendship made her a climate activist and prompted her to reflect on how environmental health and air pollution have shaped her journey. She approaches her studies using a justice framework and has a sharp eye for institutions' often ambivalent approach to sustainability and climate action.

Keywords: smog, environmental justice, activism, environmental studies

Trinity Smith: How have your childhood memories of the climate differentiated from when you were a child to now?

Mira Easwaran: My parents are immigrants from India. They immigrated here in the 90s. I used to go back to India to visit family as a really small kid. I had a weird nostalgia: this was like my home country, my family's home country, and I loved going back but then I got another asthma attack, this time, in India. I remember it was pretty much because of the smog. I didn't quite realize that was doing something to my body but I remember being able to get a hospital bed in Mumbai and getting treated for the asthma attack. I am so thankful that I was able to have that. Then, every time we'd go outside I would have to wear a mask because my mom was very concerned that I would get an asthma attack again.

I have really grown out of it now but at the same time, two summers ago I was in New Jersey, in Princeton, working here. I was here during the wildfires [when smoke from Canadian fires affected air quality in the central and eastern

U.S.], and my window wouldn't shut. I had to keep the door into my hallway open in the dorm so I wouldn't inhale smoke all night. I would be coughing and it was very reminiscent of being in India as a kid.

I was actually never really environmentally conscious. I kind of was, but it wasn't something that I was drawn to until college when I was kind of soft-recruited by a friend [Alex Norbrook] to join a climate activism group which I now have been in for two years and I'm one of the coordinators of. If I'm going to trace back and think about it in a different way now than I did back then, that would be my first interaction with climate. The beginning of my climate story would be having that interaction with smog in an industrial city.

TS: Can you talk more about how you got into environmental activism and your motivations to pursue the ENV studies minor?

“I am so passionate about this outside of class it only makes sense that I educate myself within the resources that Princeton has.”

ME: I often tell this story in a very joking manner because I wasn't sure about my own climate story which I have been figuring out myself. But I would joke, like, “Yeah, Alex Norbrook asked me to come to a meeting. He said there was free cake, and I said okay. Then I just never left. I was lured in by free cake and new friends but I stayed because I was passionate about the work.” So that was my introduction [to Sunrise Princeton]. Then I learned all about Princeton-specific policy on fossil fuel companies, I got more educated on what fossil fuel companies are doing, how they are operating. I found myself really passionate

about divestment from fossil fuel companies as well as environmental justice. I think from there I was already on my path and I was like, “Okay, this is happening. This is happening for myself. I am so passionate about this outside of class it only makes sense that I educate myself within the resources that Princeton has.” I think along the way something that really stuck with me—something I gravitated towards—was environmental justice. So over my first summer [after my first year of college] I learned so much about New Jersey environmental justice and how many disparities exist within our state. It's kind of crazy to live in Princeton and see so much green space and have all these environmental commissions and sustainability goals and then to take a trip to Trenton which has been in a large way subject to industrialization and the departure of manufacturing. There's a superfund site on the lower side of the Passaic river. The Passaic river has Agent Orange in it which the US military used in Laos and Cambodia during the Vietnam war. I also learned about the Ramapo people in New Jersey that have had toxins dumped in their community by Ford motors who also is a sponsor of athletics at Princeton. The fact that that has occurred in the state of New Jersey right alongside a town like Princeton that is so sustainability focused is just such a strange cognitive dissonance that I personally find to be really interesting.”

TS: You said Princeton is a place that is so sustainability focused, and I want to question you on that especially since you're a part of Sunrise Princeton. Are we really sustainable? Especially given the back and forth from Princeton on fossil fuel divestment, what are your feelings on that?

ME: So one, I think I should clarify Princeton, the town, does well in being sustainable. I think there have been efforts for semi-permeable sidewalks, there have been efforts for local renewable energies, there are people in the town that are very environmentally focused in a clean energy way. But Princeton University has a really interesting two-fold relationship with sustainability. So on the one hand they do things like geo-exchange which I think is really incredible. It's trying to minimize the amount of energy that we use. But at the same time they own a fossil fuel company called Petrotiger. They are raking in money from that company and have a sponsorship with BP which has decimated natural wildlife in their oil spill. You know how they have composting in the dining halls? The compost that's in Frist goes to the Scrap Lab which is a biodigester. The compost in the dining halls, so the majority of the compost goes to Trenton renewables which has now been rebranded from Trenton Biogas. It creates natural gas which is not as clean, right? People try to say it's cleaner but then there's lots of issues with it. It's kind of a false solution. I think that Princeton is very contradictory in the way they approach sustainability.

TS: What do you think justice has to do with environmental science? How does environmental justice fit into environmental education?

ME: One thing I think environmental justice poses to us is a moment of reckoning and a moment of change. There's so many different things like racial justice, socio economic justice, geographical awareness...all of those

“environmental studies has always been justice centered”

are caught up in it. There is a wealth of experience and data that can be analyzed so we can better understand the systems of oppression that create these patterns. As a Policy major, it's really important for me to understand how systems create these circumstances so I can hopefully one day start to deconstruct it.

TS: How does your justice outlook redefine what environmental studies and environmental science means to you?

ME: I think for me environmental studies has always been justice centered. I think because I entered into it already with a justice framework, that's probably what it was. So when I was learning and sitting in that classroom in Guyot and learning about albedo and learning about different scientific things, I was looking for and analyzing all the ways in which communities are disproportionately impacted by these changes.

TS: Before our interview and Professor Wiggin's mini-lecture, did you have a definition of a climate story? Did you know what a climate story was and did you feel you had one?

ME: I did have some understanding of a climate story, I think, this semester. Before then

I didn't think I had time to reflect. Recently I have been looking at my past, like we talked about, I've been looking at my time as a kid, my time when I would visit India, and my own everyday experiences and seeing how that relates to climate. So I have not always had a climate story. I'll be very honest my first semester or so within Divest Princeton [now, Sunrise Princeton] I was really struggling to find out where I entered the fold. And then you figure out, “Oh, I actually have had a really long past with this, I just never knew about it. I just never knew how to pinpoint it. I didn't know that this was happening to me.”





Climate Conversations Around Campus



Political Organizer Lake Liao in
conversation with Rory Rusnak

Ph.D Candidate Maya Chung
in conversation with Michael Igbinoba

Faculty Member Dr. Allison Carruth
in conversation with Camila Villavizar Gomez

Princeton Sustainability's Andrew D'Amico
in conversation with Sidak Singh

Princeton Sustainability's Dr. Ijeoma Nwagwu
in conversation with Angela Osaigbovo

Princeton Sustainability's Gina Talt
in conversation with Trinity Smith

Princeton Sustainability's Kitty Helm
in conversation with Maggie Stewart

Political Organizer Lake Liao's Climate Story, “Bring a Sense of Empathy to the Table” *As shared in conversation with Rory Rusnak*

Lake Liao is the Green New Deal advisory to the Democratic party and a current Princeton sophomore. He is most concerned with electoral politics, specifically how they can be used as avenues to further the goals of climate justice central to modern progressive politics. In conversation with Rory Rusnak, he talks about climate education and the need to clarify the links between climate impacts and voters' material and economic self-interests.

Keywords: electoral politics, climate education, economics, voting

Rory Rusnak: In our climate storytelling class, we've pondered moments of realization that come with childhood. Sometimes these moments are rooted in the most mundane experiences. For example, growing up, I noticed that as I got older the windshields of my parents' cars no longer froze over. Simple tasks, like defrosting the windshield, became less common. Looking back, I find it so interesting to be able to reframe these moments within the context of the climate crisis, even though I didn't have the language for it at the time. I'm curious, were there any moments in your childhood when you first became aware of climate change?

Lake Liao: I was aware that climate change was happening starting in 2019, when AOC [Congresswoman Alexandra Ocasio-Cortez] released this video titled “Message From The Future,” where she outlined what the U.S. could look like in 2030 after a 10-year transformation from the Green New Deal. That was the first time I understood the economic and political context of the climate crisis—and how it's a result of the brutality of unregulated capitalism. Another acute moment was when COVID was first reaching the U.S. I did some research and learned about how zoonotic viruses would become more prevalent

as climate change makes habitats uninhabitable for animals, pushing them closer to humans, which creates conflict and exchange of diseases. I'm from Michigan, and growing up in the Midwest, from November to February, we would have snow that would blanket the entire state. Now, both back home in Michigan, like here in New Jersey, that doesn't happen anymore. On December 3rd, Princeton had its first snowfall, which is a huge deal. It's just a tangible reminder of how the climate has changed.

RR: When it comes to climate education, I know there are significant gaps in how it's taught, especially in the U.S.—if it's even addressed at all. I'm curious, did you receive any formal climate education during your schooling, or did your involvement come more through activism?

LL: No, nothing formal on climate. I think AP Environmental Science covered it a bit, but it wasn't a mandatory class. New Jersey is the only state in the U.S. that mandates some form of climate education, and that's because of its partisan swing. Climate education is highly politicized. There are conservative pushbacks to integrating climate education in a scientifically rigorous and politically non-convoluted way. I'm not an environmental scientist. I work in electoral and legislative politics. I'm currently the Green New Deal advisor to the Democratic Party. I worked on the Harris-Walz campaign and in AOC's office this summer on the legislative team, specifically developing legislation around the wind industry, transmission, and social housing with decarbonization provisions. The one class on climate I've taken at Princeton is in mechanical and aero-

space engineering, called “Introduction to the Electricity Sector: Engineering, Economics, and Regulation,” taught by Jesse Jenkins. It's about the decarbonization of the electricity grid. I'm interested in the physical infrastructure side of things because a big issue with decarbonization is how we shift energy systems, transportation, and housing.

RR: How would you describe the level and nature of political engagement among students at Princeton?

LL: I'm not heavily involved in on-campus climate organizing, mainly due to my obligations with Democratic Party work. There is a small but very committed group of organizers at Princeton. They just passed a divestment referendum with 77% of the vote, demanding Princeton divest from big polluters. I'm also close with the College Democrats, and a member of the Princeton College Democrats. There's probably about 20 or 30 students actively involved in canvassing for down-ballot races, congressional races, and for Kamala Harris and Tim Walz.

I don't think we can separate electoral politics from climate activism. I see electoral organizing as part of the broader climate fight. The people committed to this are doing tangible work, whether it's working on a USG referendum or canvassing for elections. As for the muted nature of political engagement at a school like Princeton, I think the U.S. has a culture of respecting politeness in politics, whereas in Europe, politics can be more directly confrontational.

RR: I recall reading a quote from you in *The Princetonian* where you mentioned the need for a more materialist approach to politics. Could you elaborate on that, especially in relation to climate education?

LL: So just to clarify, when I say “material,” I'm referring to economic conditions, what people are spending and earning. What I meant is that data from exit polling and swing state polls show that most people are unhappy with the state of the economy. They feel like things are more expensive now than a few years ago, even though figures like GDP growth and real wages are improving. These academic measures of economic health don't align with how people feel in their day-to-day lives.

So I think that, while I'm broadly a proponent of talking about the Green New Deal and climate and decarbonization in elections, I do think we have to be cognizant of the fact that, while we know climate is going to hurt and touch everyone eventually, to varying degrees, the average person wants economic security. They want to be able to afford groceries, rent, sending their kids to college, or whatever. The materialist exercise with climate is tying the problem of climate change to issues that working-class Americans can touch and feel, and this is a demographic of the U.S. that is shifting away from the Democratic Party for various reasons. So I

“I wouldn't say that climate is a lost cause as an electoral issue. It's an issue that we have to frame in a way that makes people understand why their own economic and material self-interest is in.”

RR: Given the gaps in climate education in the U.S., what do you think should be implemented at the elementary and high school levels? Should climate education be mandatory, and if so, how can we foster a collective consciousness around its immediate realities?

LL: We should look to pulling in data shared by the Yale Center for Climate Communications' study that shows climate is the 17th most important thing that the average voter cares about. I

think that's really sobering. There are also studies that say that a lot of people don't understand the process of global warming. You burn the fossil fuels, then they emit the CO₂, and then there's the greenhouse effect and that warms the environment. But, why is this bad? Why is that unhealthy? So the explanatory process is not simple, or as simple as a political issue like abortion rights or gun rights. I think there would be a really intense and clashing fight in state legislatures, in the Department of Education, and sections of the executive branch and the federal government to ingrain more New Jersey-type laws [mandating K-12 climate education], because the question of what's mandatory in education reaches into this cultural, ideological fight of who's indoctrinating “our kids,” right? So there are Republicans and the American right who want to ban any sorts of modifications: teaching about gay people or trans people, or even just politically contentious books with an activist or revolutionary spirit.

If people learned about climate change as a problem growing up, and it was in the curriculum, certainly, I think it would become more politically salient, but the same powers and forces that are preventing us from shutting down fossil fuel plants and building more renewables are the ones that are going to push against integrating climate education in the public education system.

RR: You've spoken really passionately about the need for a strong leftist push, particularly in the context of the Green New Deal and the state of politics. What's your emotional reaction to the current political climate, especially considering the outcomes of recent elections?

How do you feel when looking ahead to the future?

LL: It's been tough. People like me, at institutions like Princeton, often have values that aren't shared by the majority of society. The results of recent elections have been demoralizing. From a climate perspective, there's a real risk that the progress we've made—such as with the Inflation Reduction Act—could be dismantled. But I try to keep a long-term perspective. The forces that make climate issues hard to address are the same ones that create political instability. When people are economically insecure, they vote for change, which often leads to unpredictable political outcomes.

That said, there's hope. There's a lot of smart organizing happening both inside and outside the Democratic Party, thinking about how to rebuild a political movement that can win in 2026 and 2028. We have the facts on our side.

I think someone like Andy Beshear in Kentucky could be a great candidate. He's socially and economically progressive but also knows how to communicate with people across the aisle. He would bring a sense of empathy and unity to the table, which could be key to building a broader coalition.

Other names like Gretchen Whitmer, Gavin Newsom, and Josh Shapiro are also worth considering, though I'm less excited about some of them. It's too early to say, but a lot can change in the next four years as everyone grapples with the shifting political landscape.

“If you’re just thinking in climate model world, you’re not seeing what’s really causing this problem”

Maya Chung in Conversation with Michael Igbinoba

Maya, a 5th year PhD student in climate/atmospheric sciences, spoke with Michael about the deeply interconnected challenges of climate change and its societal and public health dimensions. Maya reflects on pivotal experiences, such as Zambia’s hydropower crisis during a drought, that highlight the localized vulnerabilities of green solutions. She advocates for interdisciplinary education that integrates STEM, humanities, and ethics to address the societal causes and impacts of climate change. Misconceptions about climate as purely a technical issue overlook the role of human behavior and systemic disparities. As Maya says, overcoming these limitations requires imagination, global collaboration, and diverse perspectives, particularly from underrepresented regions. Ultimately, effective climate action demands holistic thinking that bridges science, policy, and social justice.

Keywords: climate change and local challenges, imagination, humanities, interdisciplinary research, transformative solutions

Michael Igbinoba: Could you share any pivotal research or field experiences that first made you realize the far-reaching impacts of climate change? How did these moments shape your academic perspective, especially as someone studying disease outbreaks in the context of climate?

Maya Chung: One of the moments that really underscored the interconnectedness of climate change and its far-reaching effects involved hearing about a country heavily relying on hydropower. In Zambia, they’ve been relying a lot on hydropower, and they had a drought, so they don’t have electricity in a lot of their communities. This highlighted how even green solutions are not immune to climate impacts

and made me realize that a lot of these things overlap.

These experiences deeply shaped how I view the challenges of imagining truly sustainable futures. We haven’t imagined that full sort of truly sustainable future, I think, yet. It also clarified the importance of understanding localized and systemic challenges because it depends where you are in the world. For example, island nations, monsoon regions, or higher latitudes will all experience unique vulnerabilities, and these geographic differences must inform how we approach both research and solutions.

MI: How has teaching or engaging with climate sciences influenced your views on climate education, particularly in relation to disease and public health? What steps do you think universities should take to better prepare students for addressing climate-related challenges in these fields?

MC: Teaching has revealed the value of imagination and interdisciplinary approaches. For example, I recalled how even elementary school students could generate creative ideas when equipped with basic knowledge. It doesn’t just have to be climate, but it can be social as well, like, how do we make this all come together? I think there would be a version of that you could do for elementary, middle, high school, and college, and beyond too.

Universities need to foster collaboration across diverse fields to prepare students for complex climate challenges. If you actually want to do anything about it beyond engineering, you need the financing for it, right? That all ties into politics and economics and philosophy. Moreover, involving students in real-world problem-solving opportunities, like brainstorming workshops,

could enhance practical engagement. I knew the TA for a class [at Harvard] where they brainstormed climate solutions, and one of his students asked him, ‘Why can’t you just, like, explode an atomic bomb in a hurricane to stop it?’ And people laugh at that question and scientists agree it would be very dangerous to do that, but it’s such a good question. This illustrates how even

“geographic differences must inform how we approach both research and solutions.”

naïve-sounding ideas can inspire new perspectives. Ultimately, universities should emphasize interdisciplinary courses that integrate STEM, policy, and ethics. When I was an undergrad as a senior, and I was writing my senior thesis on oceanography, I was taking two philosophy classes: one was sort of like a science-and-society class, and the other was about the ethics of climate change. These classes helped me see the moral complexities of climate justice and the responsibilities owed to future generations.

MI: If you could address one common misconception about climate change in your field of expertise, what would it be? Why is it important to clear up this misunderstanding, particularly in relation to disease outbreaks or public health?

MC: A significant misconception is that solving climate change is just a technical challenge, disconnected from human behavior and society. As I mentioned, if you’re just thinking in climate model world, you’re not seeing what’s really causing this problem because it’s being caused by human behavior. This misunderstanding oversimplifies the problem and ignores the nuances of societal impacts, especially in public health.

Clearing up this misconception is crucial because the impacts of climate change are deeply tied to social and economic disparities. For instance, the solutions we propose can perpetuate existing injustices unless we consider their broader context. What do the countries that cause climate change owe to the countries that are suffering because of climate change? There’s injustices there. There’s economic disparities. Misunderstanding these dynamics risks exacerbating harm rather than addressing the root causes of vulnerability.

MI: Do you believe that a failure of imagination exists in how climate change is often framed or addressed, particularly when it comes to the health impacts of climate shifts? If so, how can we overcome this limitation?

MC: Yes, there is a failure of imagination in addressing climate change, especially regarding its health impacts. I think we are too focused on incremental changes rather than envisioning transformative solutions. The countries that are developing their energy infrastructures a lot more now have a great opportunity because they’re wanting to build new systems, not just trying to retrofit or replace

“Climate change is being caused by human behavior, so solving it requires understanding social systems and values.”

what they already have. To overcome this limitation, we need to involve younger generations and those from underrepresented regions in the conversation. I think that’s going to hinge a lot on making sure that we involve people from the Global South and the countries where this is actually happening. These communities often bring fresh perspectives because they experience the immediate consequences of climate shifts. Imagination also thrives in environments where diverse disciplines and perspectives intersect. At a

geoengineering conference I recently attended, people were arguing—the philosophers and the scientists—because they couldn’t understand each other’s point of view. But I think talking through these differences ultimately leads to positive, constructive interference of sorts.

MI: Do you feel that a stronger humanities focus could enrich climate change research, particularly in understanding its effects on human society and public health? How does this influence your work at Princeton?

MC: A stronger humanities focus is essential for understanding the societal dimensions of climate change. Climate change is being caused by human behavior, so solving it requires understanding social systems and values. My experience at Princeton has shown me the importance of philosophy and ethics in shaping policies that balance competing priorities. Learning how to weigh different moral problems against each other to create policy is extremely difficult to do, and there’s no one correct moral framework.

This interdisciplinary approach enriches my work by grounding research in re-

al-world complexities. For example, I’ve seen how climate solutions sometimes exploit vulnerable communities. Several countries gain credit for “green” solutions by taking advantage of other countries.

To move forward, integrating humanities into STEM education is critical. If you want to be an effective climate scientist, you have to know how your work sits in our world, in the full context of the climate problem. Climate change isn’t just a scientific problem; it’s a societal one, requiring collaboration across economics, politics, psychology, ethics, history, and more.

Faculty Member Dr. Allison Carruth's Climate Story, "Storytelling is Not Necessarily a Progressive Vehicle" *As shared in conversation with Camila Villavizar Gomez*

In this climate conversation, Camila asked Dr. Allison Carruth all about climate storytelling. Dr. Carruth, a professor of American Studies and Environmental Studies at Princeton, founded Blue Lab, an incubation hub for local stories about global warming. With Camila, she meditates on how stories of climate denial and delay have proven alarmingly compelling, and on the need for more compelling stories about local climate impacts—stories that show where we went wrong, that illustrate solutions in action, that hold grief, that express outrage, or that can spur action.

Camila Villavizar Gomez: What does climate storytelling mean to you now, both personally and academically?

Allison Carruth: I think it's helpful to think about climate storytelling in relation to climate communication, climate science, climate action, climate activism, and climate policymaking. All of these fields and areas intersect with one another, but are also sometimes at odds. There's a lot of data to suggest, particularly in the United States, that the level of worry, concern and commitment to taking action on climate change really varies by political orientation or by cultural background.

Given that the science of human-caused climate change and global warming has been clear, why is it that this sort of belief in climate change has become so politicized? That has to do with a couple different factors. There has been really powerful storytelling coming out of groups and institutions that benefit from climate change disinformation like the Heritage Foundation which is a far right think tank. At the same time, the fossil fuel industry has told very captivating stories that the climate anomalies we're experiencing are natural cycles and how the kinds of actions being proposed to address climate

change would be far too disruptive to people's quality of life. I've really come to think deeply about how storytelling is not necessarily a progressive vehicle or an instrument of justice.

CVG: Has that changed your relationship with stories? How do you feel about them now?

AC: I think I had a much more idealistic and naive relationship to storytelling. When I started a PhD in American literature and culture, and then when I started first collaborating on public facing environmental narrative, I thought that

storytelling was inherently on the side of good. But I have actually come to accept that storytelling is a repertoire of tools, genres, modes of expression and communication that can be put to really different uses. A case of storytelling not being used for good are some of the ways that tech companies have been charismatic storytellers around their model of change and model of action. It is not a mode I am always opposed to, but it is a mode that has been increasingly hostile to collective action and governance and sees a very small number of large corporations to be in the role of saving us through technological innovation. But they tell really compelling stories, especially that progress means technological progress and that the issue with climate change is that we need better technology—not to actually rethink the structure of technological capitalism.

CVG: What is your opinion of the narrative Princeton puts forward on how it is tackling the climate crisis?

AC: One of the things that really informs Blue Lab's work and much of my related research is the premise that there are a

couple of dominant ways that climate change is narrated in mainstream media and in popular culture that emphasize data and projections. And for some people that is enough to move them. And yet for other people it's sort of underwhelming. The other dominant mode is disaster-based with the aim to really move the needle on people's concern about climate change. I have been particularly interested in how this

"There has been really powerful storytelling coming out of groups and institutions that benefit from climate change disinformation."

type of storytelling goes around the globe and shows you wildfires or flooding events—but when it comes into the local setting it's very brief. So one of the things that Blue Lab does is try to scale down the climate storytelling to be very localized and community-centered and to develop stories that emerge out of actual communities' lived experience and hopes and fears about the future. Sometimes, climate change is just a piece of the story.

CVG: What sort of stories are most successful to get through to people?

AC: I don't think there's one kind. I think so much of climate change is bleak, apocalyptic and all about swimming through a sea of data. So I thought it would be interesting to try out comedy, specifically dark comedy and satire. One of the things that's really powerful about satire is its history as a form of expression and creativity that takes the powerful and brings them lowest. I still think that that is a mode of storytelling we should experiment with, but I also think we need stories of climate action success, heroic stories of communities who have actually made a just transition away from fossil fuels. But we also need stories that come from rage as well as stories that grieve what's been lost or being lost for communities.

One of the roles of storytelling has long been the collective working through grief and holding the memory of loss. Ultimately I think we need stories in all these different forms. That is what is powerful about storytelling.

CVG: What do you see the process being between, like, literally climate storytelling and climate action?

AC: I think storytelling has lots of different roles. It's really important to acknowledge that stories can move some people and have long done so around all kinds of large and small challenges as well as different scales of lived struggle. But they don't always. Not all stories are meant to do action, neither are all stories meant to build awareness. Sometimes a story's role is as a catalyst for action. Sometimes it is to actually document where action went wrong or faltered. And sometimes it's to open up a horizon of possibility, to imagine a transformed good future like the type of speculative storytelling that imagines other paths instead of staying on the course of history we are on. One of the guiding premises of my work is that storytelling does different work. So we need to be clear if we're collaborating on or creating a story we need to think about its aim. Is it to move action? Then we need to think for whom as well as the models we have of storytelling moving that kind of action.

CVG: What is the ultimate purpose of the stories you craft? To convince those that don't believe that climate change is real? Shake those scared out of their paralysis, or motivate people into organizing against the accelerated climate crisis?

AC: Blue Lab is an incubator for research-driven but hyper-local environment storytelling and for new forms of climate media. And one of the aims that I and the lab's co-founder, Barron Bixler, have is to provide models of climate stories that capture how different communities are grappling with and responding to real-time climate change—and in some cases catastrophic loss—in the places they call home.

"One of the roles of storytelling has long been the collective working through grief and holding the memory of loss. Ultimately I think we need stories in all these different forms."

Princeton Sustainability’s Andrew D’Amico’s Climate Story, “When Systemic Change Becomes Possible”

As shared in conversation with Sidak Singh

Andrew D’Amico is the Assistant Director for Operational Engagement & Impact Analysis in the Office of Sustainability at Princeton. With Sidak Singh, he reflected on his educational journey and work at Princeton, sharing how his personal experiences and professional background have forged his specific sustainability and climate approach. He offers key insights into staying positive, even when the news is not, and discusses how data, equity, and community are critical for advancing climate action.

Keywords: Sustainability Commitments, Advocacy Movements, Environmental Education, Environmental Justice, Environmental Communications

Sidak Singh: How did your upbringing and formative experiences shape your views on sustainability and climate change, and how have they evolved with experience?

Andrew D’Amico: I grew up at the shore of Monmouth County, New Jersey. It was a very New Jersey upbringing, where I definitely remember appreciating nature and being outside, but more in the context of sports and suburban nature. Honestly, my parents didn’t hike, camp, or take me to national parks. While in high school, I had moments of realization where what was going on in the news disturbed me. Some classmates showed us a documentary about the genocide in Darfur, which deeply impacted me. Beyond sadness or anger, I couldn’t believe something like this could happen in the world, especially given my comfortable suburban life. That kind of woke me up. I wanted to study something in college that would allow me to make a positive difference in the world. As an undergraduate, I created my own major. I was taken aback by egregious global poverty, like people living on less than a dollar a day. I created a major that looked at how different countries, thinkers, and developmental institutions tried to solve extreme global poverty. I also realized that climate change disproportionately affected the most vulnerable,

low-income people around the world, with projections indicating it would only get worse. Climate change and sustainability intersected with and impacted every other cause I cared about. With these things in mind, I set forward a dream to work in sustainability. As an adult, I developed a love for nature. Now I go camping, visit national parks, and experience the beauty and awe nature inspires.

SS: How do you personally manage the stress between hope and worry for the future, given your involvement in climate action and data analysis?

AD: This is one of the big struggles in my life, as it is for many in the social and environmental impact space. Encountering climate projections and global poverty statistics during undergraduate studies affected me deeply. While it’s naive to view climate projections as rosy, I’ve learned to accept that I’m one individual among billions, trying to create some good. That perspective helps me stay positive day-to-day. Self-care is simultaneously crucial. I’m personally a drummer, so I like getting my creativity out that way. I also do yoga, read fiction, exercise, and spend time with my dog and one-year-old. Compartmentalizing and enjoying life outside of work helps me manage stress and stay effective in achieving my goals.

SS: In your department, how do you work with and turn data into actionable strategies, and what aspects of your work do you find especially meaningful or interesting?

AD: As the Assistant Director of Sustainability at Princeton, my job is measuring the progress Princeton has made on its sustainability commitments. As part of my position, I especially enjoy collecting data that may lead to more sustainable decision-making. For instance, a big project I’ve worked on this

year is the STARS report, a 1,400-question report card for sustainability at higher education institutions. My role required reaching out to almost 100 people across Princeton to touch on sustainability in some way, gathering written responses and qualitative and quantitative data, and compiling all of it into a cohesive public document. I found that everyone I worked with at Princeton cares about sustainability as much as we do on the sustainability

team, which was incredibly heartening. Climate projections and news about extreme weather events can be disturbing, but collaborating with people who are engaged is rewarding. In the process of compiling reports, there are often eureka moments, like finding trends or patterns through spreadsheets, pivot tables, or formulas that suggest more sustainable decisions. Working with the supportive seven-person team in the Office of Sustainability has been a highlight of my career so far.

SS: What are the most critical operational changes for advancing sustainability in your view?

AD: I’ll offer a disclaimer that I’m not a climate scientist or an engineer. I have a background in helping nonprofits and universities measure their impact effectively, and I advocate for a more holistic understanding of sustainability issues and environmental justice. The Princeton Sustainability Action Plan sets bold commitments across seven different action areas. Net-zero greenhouse gas emissions are central among them. My role also focuses on advocating for the understanding of relationships between issues. For instance, reducing greenhouse gas emissions and air pollution doesn’t just fight climate change, it also impacts marginalized communities near Princeton.

We care about where stormwater goes, the local water bodies it joins, the pollution it creates, and who bears the brunt of that pollution. From my position, I try to connect these issues and use an environmental justice lens to move forward.

SS: What role should universities or similar institutions play in ensuring that their sustainability initiatives address environmental goals as well as equity and justice goals?

AD: The first step is defining a commitment to environmental justice alongside sustainability. Formally committing to it is significant, and clarifying terms and definitions goes hand in hand. Environmental justice is newer in higher education sustainability efforts. Educating those working on sustainability about its importance and how it’s connected to trends like water pollution, air pollution, and stormwater management is critical. Empirical data shows the worst effects are disproportionately borne by marginalized communities. In terms of strategies, universities can make a big difference in stormwater management. Rainwater picks up pollutants that affect local ecosystems and communities as it runs off into local water bodies. The displays on campus, like green roofs and plant installations, are designed to limit water runoff into Lake Carnegie and improve its quality. Advocating for stormwater management as a sustainability and environmental justice issue has been a success for our team.

SS: What are some gaps in higher education’s current approach to climate education, and how can universities better prepare students to address environmental challenges?

AD: Positive developments are happening. For example, the STARS report allows universities worldwide to measure and benchmark their progress on sustainability and education. The ques-

tions that are asked about how many courses you have that relate to sustainability or what kind of programs you offer allow you to, as an organization, benchmark where you are compared to leaders in the field or those who are struggling. So, I think one key here is just talking about it like the STARS report does and being open about the challenges it throws up. Climate education often starts with minors and certificate programs before evolving into required courses or majors. Advocacy from students, staff, and faculty is key to embedding climate literacy and sustainability into the curriculum fully. By identifying gaps and pushing for more coursework, universities can better prepare students.

SS: How did opportunities like your own undergraduate capstone project in Chile influence your understanding of global climate justice and the impact of local action and community involvement?

AD: Traveling abroad to Chile and to Senegal allowed me to contextualize the effects of actions in the United States on the rest of the world. For instance, during a study trip to Senegal, we visited a massive landfill in Dakar, a major source of pollution from electronic waste. Much of the waste came from the global north. We met people living and working in the landfill, removing batteries from discarded cell phones, and burning e-waste, releasing toxic fumes. Seeing the direct impact of thoughtless decisions, like throwing away a cell phone without considering where it ends up, made me more conscious of our actions. I’ve seen the ripple effects of actions in the global north on marginalized populations in the global south during my travels. It drives my work to ensure our actions consider these impacts.

SS: How can people in America become truly invested in sustainability without personally witnessing the disastrous effects you’ve seen?

AD: This is an incredibly challenging question, and our office thinks about it constantly. Communicating why sustainable decisions matter is central to our work. For students on campus, we use media and tailored messages to engage them. Infographics are especially effective because data and figures can leave a lasting impression. I aim for my charts, graphs, and infographics to convey their meaning within five seconds. Storytelling, creativity, and graphic media are vital since numbers and text alone aren’t always engaging. Quick-hitting Instagram videos with calls to action are another tool we use.

SS: How should offices like yours meaningfully work with student groups to advance sustainability?

AD: Advocacy movements are essential to advancing urgent issues like climate change and environmental justice. Both civic engagement and internal efforts are needed. I value seeing people across disciplines, from scientists to engineers to building services staff, fighting for the same results. When advocacy movements change hearts and minds and institutions enact incremental changes, systemic change becomes possible.

SS: What excites you most about the future of climate action, and what obstacles do you see as the greatest threats to progress?

AD: At Bloomberg Philanthropies, I saw how private institutions and nonprofits step up when there is a policy gap around climate. While I don’t believe the private sector should necessarily lead on these issues, it is great to see non-governmental actors and local governments step up. I expect this trend to continue, and I hope to contribute to these efforts as part of an organization that cares about sustainability.

Princeton Sustainability's Dr. Ijeoma Nwagwu's Climate Story, "Nobody Can Get There Alone"

As shared in conversation with Angela Osaigbovo

Dr. Nwagwu is the Assistant Director for the Office of Sustainability at Princeton, and she manages academic engagement and the Campus-as-Lab initiative. She and Angela discussed Dr. Nwagwu's legal training—she has a PhD in jurisprudence from Harvard and loads of international experience. They talked about how different people come to sustainability differently, and the importance of centering humans' diverse lived experiences in climate and sustainability solutions. Dr. Nwagwu shared what makes her mad, and she emphasized the policy tools already in our hands to effect sustainable solutions for all people—and the planet.

Keywords: Environmental burdens and overburdens, environmental justice, sustainability, solutions

Angela Osaigbovo: What did climate mean for you when you were younger, and what does it mean for you now?

Ijeoma Nwagwu: We moved a lot, and the two landscapes that defined my early life were far apart. My family lived and I grew up in central Nigeria, in an area called the Jos Plateau. It's spectacularly beautiful: it's temperate and altitude-wise, it's one of the highest areas in Nigeria. It also had great soil. So I grew up in this really fertile, beautiful, almost Garden of Eden natural environment. I think that's where my love of the environment kind of grew, you know, just really unconsciously, we never talked about it. We just lived there, and my parents were educators, but they also farmed, so we had our own gardens and farms, and just growing up in that beauty, as well as that abundance of fresh food, which I didn't know was a big thing then, shaped my worldview. In the garden, we had organic foods, avocados, green peas, what have you, and I was born in that space of beauty, joy, and love and wonder around climate. I grew up around small

holder farmers and pastoralists, people who are really at the forefront of, what we understand now is the climate crisis. A lot of the strains in that part of the world now is around, you know, a climate that is warming to the extent that it cannot provide their livestock, enough green grass to eat or predictable weather for growing crops—introducing new levels of precarity. Growing up, I really enjoyed just navigating the farmers' markets with my mom and spending time engaging with people there. A lot of the interaction was relational, you wanted to buy stuff, but you did that while tending to relationships and supporting people. I really appreciate that social experience, which is also what I love about the work that I do with the Campus as Lab. I get to engage and talk with people about their research and course interests. Growing up in the environment I did made me curious about people as well as how they adapt, grow and navigate the stresses of life, including a changing climate. When we moved to the US, we lived in Black community, near the university my parents attended. At this time, in the '80s, integration was ongoing. At one point, for elementary school, I was bussed into a nearby white community to go to school, and I started to notice disparities between the community I was going to school in and the one I was living in. In that low-income Black community, there was a marked lack of verdant space and not a lot of opportunities to practice sustainability in general or in the local schools; it was a food desert as well. So that was my lived experience of what it means to be Black in America in terms of being constrained by an under-resourced environment. Our neighborhood in Baton Rouge, Louisiana was right next to the Mississippi River, and we would play

by the river. There was some exposure to nature, but [near where] we used to play was a landfill site. This lived experience—in an environmentally overburdened community [where we were] held up by faith communities and mutual support—also fed into my climate story.

AO: How does your legal training and international civil rights background shape your approach to your work in sustainability?

"It's important that people are the center of solutions."

IN: I think it's an important background to have because a lot of the things that we describe as sustainability challenges, environmental challenges, have a justice component—all peoples are not impacted the same way ... or have a voice to be heard in policy. We have environmentally overburdened communities, both at the national level, state level, international level, that have been kind of sacrificed—where, for instance, we locate landfills or other waste infrastructure, thereby setting up a situation of harm. [...] Another example is cancer alley in Louisiana. I remember just going around my state of Louisiana and seeing rows of chemical facilities. They have been shown to have led to toxic exposures for the communities, and it's an area with higher incidence of cancer as a result. So, I think they [environment and society] present one and the same issues. We can't separate them, and it's only by addressing them together that we will be able to actually solve what we describe as the climate crisis. It's important to center people and planet and prioritize both, not just the planet. It's important that people are the center of solutions. Luckily, in the discourse since the early 2000s, there's been a real recognition that environmental justice and adding a critical justice lens are key to how we think about sustainability. [...]

When you understand that [people] have varied lived experiences—sometimes people live in an environment that has been heavily impacted by, for example, high levels of incarceration, or [lack] systemic support for schools. So you may come to sustainability from a different perspective. [Some] communities don't have enough green space and sometimes have food deserts as well, with a lack of access to healthy and organic food. So all these different experiences impact how people view sustainability and come to it.

AO: When was the last time something "environmental" made you mad?

IN: I have two examples. [The first was sparked by] a recent conversation with graduate students who were working on a Campus as Lab project and exploring how our campus could reduce waste and reduce our waste's impacts on environmentally overburdened communities. We at Princeton, like other institutions, send waste to locations which are often environmentally overburdened. If you think about this surrounding area, our waste is sent to Trenton to collect and then further on, to a landfill somewhere in Pennsylvania.

And I got mad just seeing the statistics on the EPA's website tracking the air quality index and toxicity levels in overburdened areas which demographically have more Black, Brown, and low-income communities. And I just got mad seeing these higher levels of toxic exposure caused by no fault of the people living in these communities. The game is being kind of stacked against people before they even start. So just seeing how these indicators line up made me mad, you know, to see the data scientifically. That really was upsetting to see. The other thing that made me mad was looking at recent flooding and seeing ordinary people's lives upended by environmental-climate disasters. It feels like globally we're applying band-aids to big, festering wounds that are impacts of climate change. So what makes

me mad is the dissonance between the reality we're experiencing around the devastating impacts of climate change, that disproportionately affects low income communities and communities in the global south, and our overall response. We are not treating it as an emergency, and that really makes me mad. We're reactive where we could be more imaginative. But what does give me hope is seeing imaginative solutions that people are experimenting with. Here on campus for example, we have a project called the Seed Farm which grows and multiplies indigenous heirloom seeds and partners with many generous people and organizations including community partners such as the Experimental Farm Network, Munsee Three Sisters Medicinal Farm, and the Ujamaa Cooperative Farming Alliance. The project also studies indigenous farming practices and fundamentally just finds ways to repair historically broken relationships with indigenous communities. Collectively, we develop real solutions by working collaboratively to plant the seeds to address important concerns like food sovereignty and food deserts in modern-day indigenous communities.

"We're reactive where we could be more imaginative."

AO: If you could implement one environmental policy what would it be?

IN: For me, I think it would be reducing the cost of implementing sustainable practices. One amazing thing I've seen here at Princeton is the energy infrastructure transition: the solar build out, the conversion from steam to hot water with geo-exchange for heating and cooling our buildings. I would love to have a policy implemented where people can very easily introduce such energy infrastructure to their homes. Policy-wise nationally, we have it on the books through the Infrastructure Reduction Act. But what we've seen is that at the civic level, communities and individuals find it a little daunting. It's difficult [both] from an awareness standpoint

and regarding technical knowledge, even for solar. So, from a policy standpoint, I would be delighted to be able to move us to adopting clean energy technologies, composting practices to combat food waste, and building energy efficiency practices more easily. That would be a great thing to happen—especially considering the health possibilities and positive outcomes associated with clean energy, waste management and building energy efficiency. Even if we at Princeton are able to get to net zero by 2046, we're still all on the same planet, right? So nobody can get there alone, this requires collective effort.

“Connecting Academic Work with Campus Operations in Pursuit of Sustainability”

Gina Talt in conversation with Trinity Smith

Gina Talt (Princeton ’15) is a key member of the Office of Sustainability’s Campus as Lab program, and she works across the university’s operations and academics on projects around food systems. With Trinity, she shared reflections on her undergraduate experience at Princeton, on connecting academic work with campus operations, and the need to build personal and institutional relationships and processes for sustainable—and scalable—solutions.

Keywords: sustainability, Campus-as-Lab, composting, relationships, sustainable processes and solutions

Trinity Smith: When did your interest in the environment first begin? Were you always interested in environmental studies?

Gina Talt: I think it stemmed from an overall love for animals—for the natural world. When I was younger, I was just fascinated by, like, the speed of a cheetah, and I loved being around dogs. My first memory of what I wanted to be when I grew up was a vet. Then, I got into running; you get an appreciation for the natural world when you’re alone in your thoughts. And then that led to taking environmental science in high school and being a part of green groups.

TS: So when you came to Princeton as an undergraduate, did you know you had an interest in environmental studies? Tell me more about your time in undergrad. What was your major? What classes did you take?

GT: Almost 10 years ago, I graduated from Princeton, so that’s pretty surreal. My major was economics, and I got a certificate, or what is now a minor, in environmental studies. Other schools might have had a major in environmental science or studies, but we only had this certificate. So I knew I had to find something else, and that’s where I landed on economics. I enjoyed the more quantitative social science approach. I thought not a lot of people might see the connection between economics

and environmental studies. What you might see is a lot of EEB majors or geoscience majors, right? But at the end of the day, sometimes, to appeal to people you have to make a profit, or you have to make things appealing to the mass public. So I think I wanted to explore more of the intersection between environment and economics. I enjoyed digging deeper into very niche topics within the economics major but also in ENV. Someone just asked me the other day during a composting shift, what my favorite class at Princeton was. I remember one, right on the heels of Super Storm Sandy. It was called “Ex-

treme Weather in the Garden State” but [the professor] made it tailored to this recent, probably climate induced, weather event that really devastated the New Jersey shoreline. We actually went into the communities and talked to them about repair, rebuilding, and ways to do it in a climate friendly way. And then, by the end of the class, we came up with outreach materials that translated the latest science into actionable things that homeowners can do to make their homes more resilient. At the time, this was a ‘Community Based Learning Initiative,’ but now it’s called ‘ProCES.’”

TS: How did you transition into the work you do now?

GT: My first job [after college] was more policy analysis, and I felt like I wasn’t having the impact I wanted. In my cover letter for the application for the [Princeton Office of Sustainability] fellowship position, I actually talked about how I wish I had done something a little bit more applied for my [undergraduate] thesis work. It’s kind of hard with economics, but I feel like there could have been a way. That was just when the Campus as Lab program was starting at Princeton, and that’s what led me to wanting to come back to Princeton and

to try to show people that there is this way where you can connect your academic work with campus operations in pursuit of sustainability.

TS: What is the goal of your work?

GT: Being in this more dynamic environment, working with students on new solutions—if we are able to show that they can be effective here, they could be repeatable at other institutions and maybe even scaled up at city level. So that’s the work I’m doing with the composting [Campus as Lab] project and also modeling with the Seed Farm

too. It’s great to see Princeton trying to use its resources to be at the forefront of doing things differently in pursuit of sustainability.

TS: Do you come across any climate deniers or people who are not willing to be a part of the change?

GT: I feel in this bubble; there’s relatively fewer deniers, so I don’t think that’s been as much of a challenge. Sometimes in my personal life, you know, there’s definitely people who don’t really understand it or don’t believe it exists, and that’s a little bit more difficult. But there’s also different tiers of what people need. There’s going to be the early adopters, right? Then there’s people who need incentives. There’s other people that need convenience and other people that need disincentives in order to act in a more pro-environmental way. So it’s a matter of figuring out what motivates people or what’s their current roadblock.

It takes a lot to change something. You got to be that squeaky wheel, try to convince people, and build consensus. For example, the composting work, it required a lot of buy-in from different departments, facilities, campus dining.

TS: In class we talked about how sometimes sustainability staff members at other universities feel their work is marginal to the university’s greater operations and goals. I’m just curious what you think about that and if you feel empowered in the Office of Sustainability, here?

GT: Our office has only really been around for like 20 years, right? The institution’s been around for almost 300, coming up soon. But some institutions are just forming offices of sustainability. So in some ways we’re ahead of the curve. Some ways we’re not. With anything relatively new, trying to make sure that sustainability is always incorporated is a matter of trying to build relationships and processes. I’ve seen ways where sometimes we are overlooked, and it’s just that institutions are used to one way of operating, and now we need to be the ones to guide it in the new direction. It’s not that it’s a bad thing. Every year I’ve been here, I’ve seen progress towards that, but it’ll definitely take some time.

TS: So do you feel like you’re making an impact at Princeton, being in the Office of Sustainability?

GT: Sometimes there’s a tension when you have that Princeton degree. People are like, “what are you gonna do next?” Expecting big things from you. One thing I took away from one of my [graduate] classes in communication and leadership is sometimes you don’t have to do this big, significant effort to show that you’re a leader. Think like a lollipop: what can you do every day, even if it’s just to change people’s minds? If I can have a positive influence on the next generation and have them think more critically about a subject or maybe even pursue a career in sustainability. Then that is a kind of impact. And so I think my leadership style is more “lead by example,” showing that you can make a career out of this and you don’t necessarily have to follow the traditional path. Every individual and every person, village, town, college, makes a difference. If you take short-

cuts or don’t show the right practice, it can have a ripple effect on how other people behave, and it kind of becomes cyclical. So if you try to live your ethos of sustainability on a day to day basis, more people do.

“With anything relatively new, trying to make sure that sustainability is always incorporated is a matter of trying to build relationships and processes.”

“Anything You Can Think of Can Be Tied to Sustainability”

Kitty Helm in conversation with Maggie Stewart

Kitty and Maggie discuss how student engagement can create a better climate future, even as the dimensions of climate impacts grow. Kitty shares her childhood experiences growing up along the Ohio River in Kentucky and the importance of relationships and making connections for climate action. She emphasizes the importance of meeting people where they are—and of cultivating hope and solutions at Princeton and beyond.

Keywords: Relationship Building, Community, Inspire, Passion, Cultivation

Maggie Stewart: Do you have a story of how climate change has affected your life? How has your story impacted your decision to study and work on environmental issues?

Kitty Helm: I was interested in sustainability and going into this field because of my childhood experiences. I grew up in Kentucky, and my family's still there. My moms have a beautiful property on the Ohio River, and as an only child, I grew up in the woods, in nature, and on the river. However, we experienced pollution in the river. From a young age, my parents had open conversations about what it means to take care of the environment that we live in and how important it is to cultivate the environment. Through our home, they taught me seemingly simple things, such as why you have to think about where our waste goes because otherwise, it ends up in places like where we live. I ended up studying environmental science in college because of both the positive experiences I had as a child and also because, quite frankly, the climate crisis scares me. It felt like it was a meaningful field to enter into. After my education, I worked for the Office of Sustainability at the school I went to, Elon University. I then came to Princeton, where I have worked in the Office of Sustainability for

two and a half years.

MS: What has been the most fun or successful part of your time at Princeton?

KH: I'm personally really driven by relationship building. I have been able to cultivate meaningful relationships with students and campus partners. One of my favorite programs that I get to work on is the Princeton University Farmers' Market. Over the years I've been here, I've become friends with many vendors and farmers who participate. It's really heartwarming to create those relationships through the Farmers Market. Beyond the market, building relationships with the students in leadership roles or working for our office over the years has been really impactful. Being able to get really close allows me to learn from them. Whether it's sustainability-focused or even just well-being-focused, it's really important to create a community around the things that we're passionate about.

MS: How do you hope Princeton can inspire young people to engage in environmental issues?

KH: It is a never-ending process of trying to reach more people, especially trying to reach folks who wouldn't initially engage. There are a lot of students who come to us because they're already passionate about sustainability and the climate crisis, but reaching those students who do not view environmental issues as their top priority can be harder. Creating partnerships with student organizations is really important, whether through academic or administrative departments on campus. This allows us to have a bigger network of

people to reach. It is also important to meet students and administrators where they are. Especially if they're passionate about other things that are intersectional with the climate crisis, whether it be diversity, equity and inclusion, well-being, or even being passionate about food, anything you can think of can be tied to sustainability. My work is to make environmental justice interesting to everyone.

MS: As the sustainability engagement coordinator at Princeton, what do you think is the most important part of your job, and where do you think sustainability belongs in modern universities?

KH: I think it belongs everywhere. We're lucky because our office has eight staff members, whereas many other institutions might only have smaller Offices of Sustainability. Still, these conversations about sustainability should be important to everyone: administration, students, and the whole community. In my role, since I do student engagement, I lead our student-employee programs and do lots of student-facing events. It is incredibly important to me to inspire future leaders by having these conversations and giving opportunities for students to take action on projects they're passionate about that are related to the climate crisis or sustainability. People are going to leave Princeton and take leadership roles in their careers, and we hope that they'll take what they learn about sustainability from Princeton into those roles in the future. It is important to get people engaged, whether by encouraging people to vote for the planet or just having more climate conversations with everyone around them.

“From a young age, my parents had open conversations about what it means to take care of the environment that we live in and how important it is to cultivate the environment.”

MS: Has working in the Sustainability Office changed your outlook on the future? Has it made you more or less hopeful about our path forward?

KH: It has been a little bit of both. I definitely try to stay optimistic about the future. There is a lot to be hopeful about. There are a lot of solutions out there, and change is happening every day. Although, you know, the climate crisis is a really scary thing that we're facing. All we have is hope, and we need to stay focused on solutions, action and hope if we want to get through this together.

“All we have is hope, and we need to stay focused on solutions, action and hope if we want to get through this together.”

When I arrived at Princeton in the fall of 2024, I imagined that the stellar first- and second-year students enrolled in our experimental seminar, Climate Storytelling for Climate Action, would be highly climate literate. To my dismay, and theirs, we discovered that only 30% of them had received any formal climate education before arriving at university. In my experience with the My Climate Story project—working with college and high school students around the country—30% may actually be higher than average.

I started the My Climate Story project with the goal of creating a no-cost climate curriculum for students, teachers, and professors that provided opportunities for learning communities to build climate literacy and co-author their climate stories: science-based stories of how climate was impacting their lives. Climate impacts nearly all sectors of contemporary life, and so climate education needs to be threaded across our education, across the sciences and the arts. The project began during pandemic. Since then, some five hundred students and dozens of teachers and professors have explored and shared their climate stories. As the project’s mission statement says:

You don’t need a lab coat to collect climate data. My Climate Story is a public storytelling project that recognizes climate change data as stories about the people and places we care about. These personal experiences of climate change provide valuable additions to the quantifiable science as we continue to struggle to

comprehend and to take action on the climate crisis.

Together, we’ve designed and offered workshops in high schools and colleges. We’ve generated a “Story Bank” of climate stories searchable by location and impact. We’ve made a project documentary and a project workbook. We’ve partnered with media outlets to hold a Philadelphia’s Climate Stories Festival. We’ve trained undergraduates across the nation to be Climate Campus Correspondents. We piloted new writing workshops and, with the help of the intrepid students at Princeton who took “Climate Storytelling for Climate Action,” we refined those workshops.

Now, we are aiming to make the workshops we developed together more easily available to faculty and students writing on other campuses. In the meantime, you can find them through the links in this magazine and online.

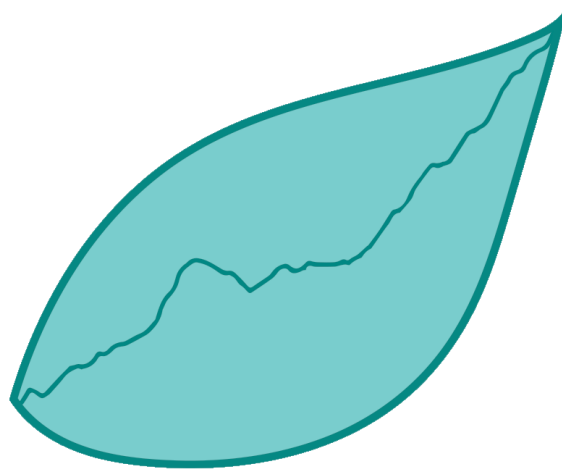
In our class at Princeton, we surveyed the explanations that climate and sustainability educators offer to account for the continued failure to take action on climate at scale. We read reports about fossil fuel lobbyists’ sordid history of lies and misinformation, and we examined some of the pro-fossil fuel lesson materials the oil and gas industry provided to educators. We explored social scientists’ theorization of a “triple failure of the imagination” to account for the ongoing failure of programs and schemes to end the causes of climate change.

We attended to public and environmental health educators’ call to teach our students to cultivate “agency in the Anthropocene,” creating curricula replete with interdisciplinary content and supporting “an action orientation that encourages youth leadership, peer interaction, and community involvement.” Together, we thought deeply about the power of education to effect transformative change.

Climate storytelling, and climate education more broadly, cannot substitute for climate action. But learning to recognize climate harms and then documenting and sharing them provide essential steps. Sharing climate stories builds social and political communities capable of mitigating those harms and building resilience. It is our hope that the climate stories shared here support Princeton on the path to a more just and sustainable future and that we can encourage others to recognize and document their climate stories too. If you’re a student, we invite you to take the storytelling tools we’ve created and make them your own: explore your climate story and share it with family and friends. If you’re a teacher in the sciences or the arts, we encourage you to offer climate storytelling lessons and workshops in your classes.

Bethany Wagoner





MY CLIMATE STORY

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