

**Congrats to the 2023-24
Steinbrenner Doctoral Fellows!**

A new group of PhD students will be supported by the Steinbrenner Institute in their environmental research. Read about the fellows and their work. > p. 1

**New Environmental and
Sustainability Studies Statistics**

18 students graduated from the ESS program this academic year. Among these students is Maegan Bogetti. Read about her experiences and achievements. > p. 2-3

**What's happening at the
Steinbrenner Institute?**

The institute continues to grow, welcoming new faculty and cultivating community on campus. Learn about recent events and meet new faces at the institute. > p. 4

THE ENVIRONMENTALIST

Education and Research at the Steinbrenner Institute

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Congratulations to the 2023-2024 Steinbrenner Doctoral Fellows!



Theobard Habineza (Mechanical Engineering - Presidential Fellow)

Theobard is jointly advised by Dr. Albert Presto and Dr. Allen Robinson and is a member of Center for Atmospheric Particle Studies. His research focuses on PM chemical characterization and source apportionment in Eastern Africa and its comparison with the Global North. He is conducting an intensive real-time measurement campaign to quantify the concentration and composition of PM_{2.5} using the Aerosol Chemical Speciation Monitor (ACSM) in Rwanda.

Abdulhakeem Ahmed (Chemical Engineering - Dunlap Fellow)

Abdul is advised by Dr. Ana Torres. He is researching the design and optimization of sustainable circular economy networks. Currently he is assessing the life cycle of PET to determine optimal and viable circular networks spanning various pathways for production to varying recycling technologies for post-consumer PET. His work aims to build upon existing methodologies, providing quantitative metrics and a generalized framework that increases the current understanding of how we measure network circularity.



Morgan Newman (Architecture)

Morgan is advised by Dr. Nida Rehman. Her doctoral research works at the intersection of spatial and quantitative analysis, and architectural history to explore issues of racial and environmental injustice in the United States. Currently, her research examines and contextualizes how emerging practices in architecture and reparative design can be implemented in rural landscapes to create more sustainable and ecologically equitable communities in the Black Belt region of Alabama.



Leenia Mukhopadhyay (Chemistry)

Leenia is advised by Dr. Carrie McDonough. Her research is focused on detecting and evaluating the presence of PFAS in environmental matrices and biological samples. She is working on evaluating biomimetic materials for passive sampler development, which enables high-resolution analysis of PFAS in the environment, providing accurate and high throughput results. The goal of her research is to help in the understanding of exposure and bioaccumulation of organic contaminants in animals and humans.



Congratulations to new alumni of the undergraduate Environmental and Sustainability Studies program!

14 students graduated with an ESS minor during the 2022-2023 academic year, three students graduated with an ESS additional major, and one student graduated with a BXA concentration in ESS.

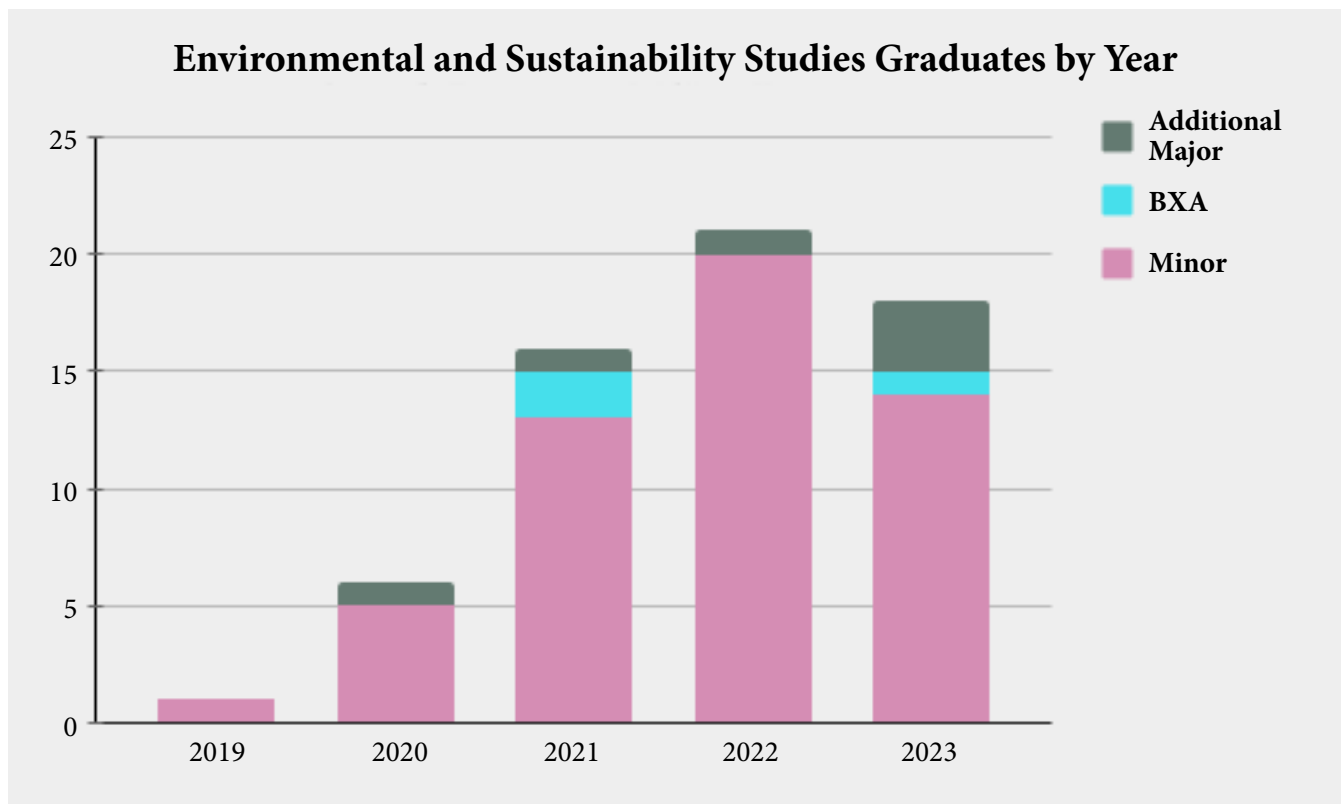
2023 Graduates with a Minor in ESS:

- Engineering: 7 students
- CFA: 2 students
- Dietrich: 2 students
- MCS: 2 students
- Tepper: 1 student

2023 Graduates with an Additional Major in ESS:

- Dietrich: 2 student
- MCS: 1 student

The graph below shows the rate of graduation from our undergraduate program since the minor was created in 2018.



As of summer 2023, there are 26 students with a declared minor in ESS, one student with an ESS BXA concentration, and 19 students with a declared additional major in ESS.



Environmental and Sustainability Studies Alumna Awarded Fulbright Scholarship

Maegan Bogetti, an alumna of the Environmental and Sustainability Studies program, has been awarded the prestigious Fulbright Scholarship.

Since graduating in December of 2022, Maegan has been working as the Outreach Coordinator for Green Village Initiative and Digital Media and Communications Intern for Breathe Project, two organizations she is extremely proud to be a part of. Through her work with Breathe Project, Maegan has

been a part of several campaigns largely spearheaded by community members who are afflicted by poor air quality in Southwestern Pennsylvania. She has learned a lot about the many layers of this resistance – from intervening during the permitting stage, to sharing personal stories, to creating pathways for residents to create a record keeping system for the things they see, hear, and smell, to navigating politics within organizations that are meant to help residents, but who often let them down or outright mistreat them.

This work pushed Maegan to apply for a Fulbright Scholarship. She received an Open Study/Research Award for Naples, Italy, where she will be conducting a nine month community-based environmental justice research project. The project takes an environmental justice approach to analyzing the waste crisis happening there from the 1980s onward, with impacts still being felt today. The crisis was declared a national emergency in 2008, as the mafia-run waste dumping and incineration operation resulted in heaps of trash drowning the city and health impacts on residents from the incineration. However, many have criticized early government inaction on the problem and attempted to invalidate the impacts on local people and the environment. Maegan will be interviewing grassroots environmental organizations and leaders to assess how this crisis impacted the environmental worldview of the Naples community and resulted in unique local government policies and human-nature relationships today. She will also study the urban-rural divides that emerged in how the crisis was handled across Naples compared to Acerra, Nola, and Marigliano, three regions forming "Il Triangolo Della Morte" (the triangle of death), known for high cancer-related mortality rates stemming from the waste crisis.



After her year abroad, Maegan will be pursuing her Masters of Environmental Management with a concentration in People, Equity, and the Environment at Yale University. She hopes to keep doing community-centered work and facilitating amplification of the voices of frontline communities in environmental solution-making. Whether that role will be within an academic institution or in the nonprofit world, she knows that the collaboration of each of these industries is important and hopes to aid in creating more healthy relationships across them in her work.

Maegan's ESS additional major enlightened her to the necessity of being surrounded by students and professors from all disciplines and backgrounds. She believes that this rich diversity of identities and knowledge is critical in finding solutions to environmental problems. "Those experiences are our knowledge, and are crucial to finding socially, and not just environmentally, sustainable solutions." She encourages other students to "aim with what feels like a long shot ... I entered CMU feeling totally overwhelmed and underprepared as a first generation college student from a rural small town in central Pennsylvania. I never would have imagined that three and half years later I'd be preparing to complete a Fulbright in Italy and then after, attend Yale."

Read more about Maegan and her work on the Steinbrenner Institute's website.



Steinbrenner Institute Hosts Successful Annual Sustainability Symposium

The annual Steinbrenner Institute Sustainability Symposium began in 2016 as an Earth Day event and is an opportunity for both undergraduate and graduate students at CMU to showcase projects and research of theirs which relate to sustainability in some way. This year it saw around thirty student projects of various disciplines. The room was crowded with posters, slideshows, and films about various subjects ranging from waste management to algal emissions to more equitable urban infrastructure.

The symposium was judged by Karen Abrams, Pittsburgh's Director of City Planning, Alex Hiniker, CMU's Director of Sustainability Initiatives, and Daniel Tkacik, CMU's Executive Director of the Wilton E. Scott Institute for Energy Innovation.

This year's two \$1,500 Travel Awards were awarded to:

Morgan Newman, Architecture: "Sewage Right are Human Rights: The Problem of Sewage, Flooding, and Environmental Racism in America's Black Belt Communities"

Andrew Jones, Civil & Environmental Engineering and Engineering & Public Policy: "Climate Change Impacts on Future Electricity Consumption and Energy Burden"

The judges were very impressed by everyone's work and awarded a third \$500 Travel Award to:

Kian Pu, Mechanical Engineering: "Dynamic Electrochromism for All-season Radiative Thermoregulation"

Special thanks to the judges for their time and careful review of all projects, Veggies N'at for providing lunch, and the student participants for their captivating work. You can read more about the winning projects on the Steinbrenner Institute's website.

**Want to learn more
about the institute?**



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Welcome new Steinbrenner Institute Faculty Affiliate, Kim Beck!

Kim Beck grew up in Colorado and now lives in Pittsburgh where she is an Associate Professor in the School of Art at Carnegie Mellon University. Her work includes photography, print, drawing, installation, and sculpture. Kim has an MFA from the Rhode Island School of Design and a BA from Brandeis University.



Her work has been shown widely, including at the Walker Art Center, Carnegie Museum of Art, Smack Mellon, Socrates Sculpture Park, Warhol Museum, Indianapolis Museum of Art, Omi Sculpture Park, Hallwalls and on the High Line in NYC. You can also find Kim's art in the collections of Agnes Gund, the Philbrook Museum of Art, the Minneapolis Museum of Art, and the Denver Art Museum among others. Her work has been awarded by ARS Electronica, the Studio for Creative Inquiry, Pollock-Krasner, Heinz Foundation, Sprout Fund, Pittsburgh Foundation, Thomas J. Watson Foundation, and Printed Matter, and has been reviewed in the likes of *Art in America*, *The New York Times*, *Philadelphia Inquirer*, *The Village Voice*, *Interior Design Magazine*, and more.