

### **Congrats to the 2021-22 Steinbrenner Doctoral Fellows!**

With the conclusion of the 2021-22 academic year, it's time to celebrate the achievements of this year's Steinbrenner Doctoral Research Fellows. Read about the fellows and their research. > p. 1

### **Congrats to the new ESS Graduates!**

18 students graduated with an ESS minor or additional major this past May. Among these students are Nicklaus Smith and Greta Markey. Read about their experiences. > p. 2-3

### **Updates at the Steinbrenner Institute**

Over the past year, the Steinbrenner has both welcomed and said goodbye to staff and faculty all the while growing our programming. Read about some recent developments at the institute. > p. 4

# ***THE ENVIRONMENTALIST***

Education and Research at the Steinbrenner Institute

Summer 2022  
Issue 01

## **Congratulations to the 2021-2022 Steinbrenner Doctoral Research Fellowship program cohort!**

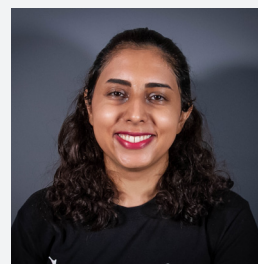


### **Alexander Polzin (Design - Presidential Fellow)**

Alexander Polzin is a PhD candidate in the School of Design's Transition Design program, advised by Peter Scupelli and Jonathan Chapman. His research examines human-forest interactions at a time when forests are increasingly digitized. By contextualizing and testing the design of sensors, interfaces and algorithms within the broader socioeconomic systems they function in, his work seeks to conceptualize how tensions between distinct, at times conflicting, frames might be bridged through ecological and generative design.

### **Maryam Hakimzadeh (Civil & Environmental Engineering - Dunlap Fellow)**

Maryam Hakimzadeh is a PhD student in the Department of Civil and Environmental Engineering and is advised by David Rounce and Kaushik Dayal. Her research examines the mechanics of sea ice and focuses on developing continuum models for sea ice rheology. Hakimzadeh explores the challenges and opportunities global climate change and warming oceans present regarding undersea energy exploration, newly available shipping routes, climate modeling, and sustainability of built infrastructure in the Arctic region.



### **Chunzhi Wu (Civil & Environmental Engineering)**

Chunzhi Wu is a PhD student in the Department of Civil and Environmental Engineering, advised by Gerald Wang. His research focuses on using a variety of computational tools—including Molecular Dynamics simulation, density functional theory and graph algorithms—to study the transport properties of polymer materials. Wu's research aims to design better sustainable polymer materials, which can help solve the environmental issues around the world.

### **Jenna DeVivo (Chemistry)**

Jenna DeVivo is a PhD candidate in the Department of Chemistry. She is advised by Neil Donahue and is a member of CMU's Center for Atmospheric Particulate Studies. Her research focuses on measuring atmospheric radicals through radical conversion chemistry and direct detection of peroxy radicals (RO<sub>2</sub>) using time-of-flight mass spectrometry. DeVivo's current project perturbs RO<sub>2</sub> radicals on a sub-second timescale to characterize the kinetics and mechanisms of unique RO<sub>2</sub> branching chemistry.



# Congratulations to the new graduates of the Environmental and Sustainability Studies program!

18 students graduated with an ESS minor this past May, and one student graduated with an ESS additional major. Among these students are Nicklaus Smith and Greta Markey. Learn more about their Carnegie Mellon experiences on the following page.

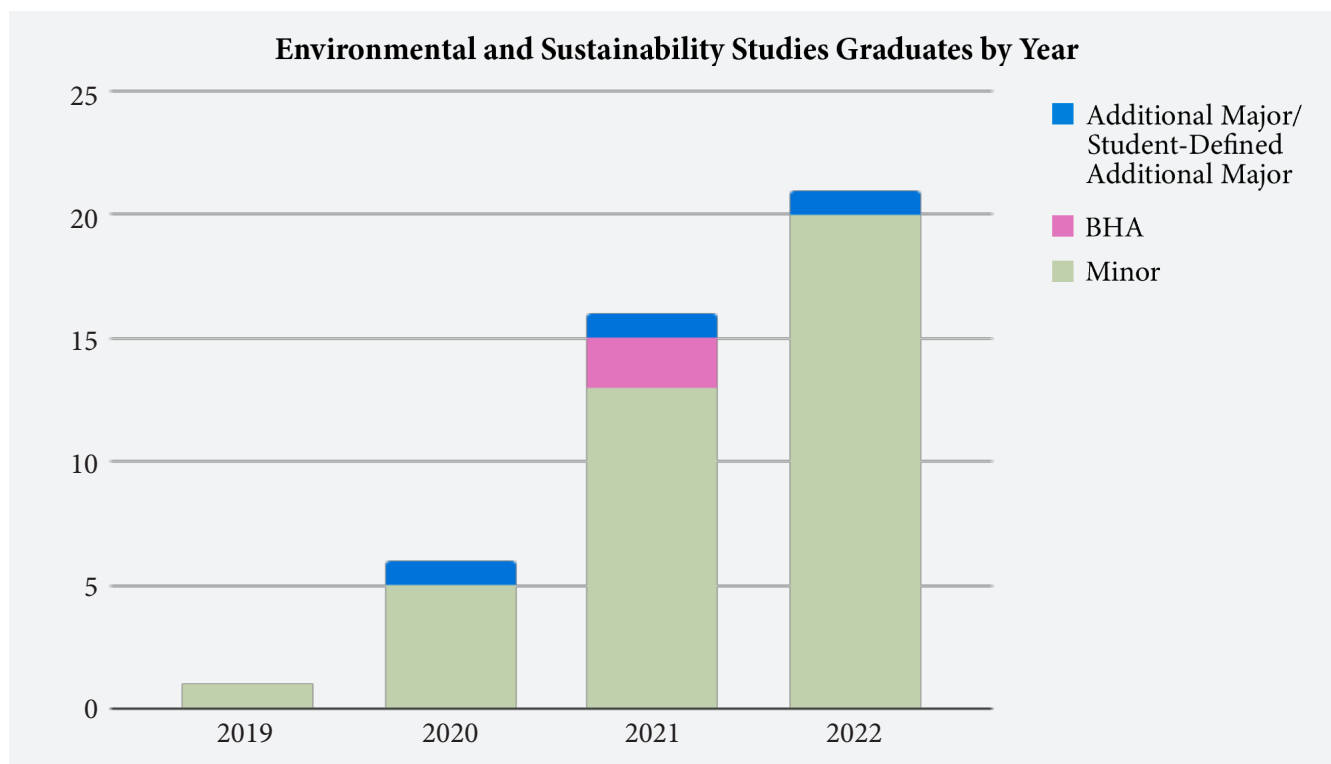
## 2022 Graduates with a Minor in ESS:

- Engineering: 7 students
- CFA: 3 students
- Dietrich: 3 students
- MCS: 4 students
- Tepper: 1 student

## 2022 Graduates with an Additional Major in ESS:

- Dietrich: 1 student

The ESS Program has grown considerably since the minor was created in 2018. The graph below shows how our alumni family has grown then.



As of summer 2022, there are 29 rising sophomores, juniors, and seniors with a declared minor in ESS, and 7 rising sophomores, juniors, and seniors with a declared additional major in ESS.

**Nicklaus Smith (he/him)**

BA 2022 Social & Political History, Environmental & Sustainability Studies Additional Major, Drama Minor

Nicklaus Smith's introduction to sustainability was heavily influenced by the Deepwater Horizon oil spill of 2010. At the time, Smith was living in Alabama, and having a major ecological disaster happen so close to home was a radicalizing moment for him. He wondered how such a devastating event was able to occur and was catapulted into a variety of environmental initiatives. As a senior, Smith was able to declare an additional major in environmental and sustainability studies and further examine the topics he gravitated toward. He appreciates the human aspect of the ESS program and how committed and passionate everyone involved is. Smith believes that "interdisciplinarity is the cocktail for solving problems," and hopes the ESS program continues to grow.

Now that Smith has completed his undergraduate degree, he will be pursuing his master's degree in climate and society

at Columbia University's Climate School, "a 12-month interdisciplinary program that trains professionals and academics to understand and cope with the impacts of climate change and climate variability on society and the environment."

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**Greta Markey (she/her)**

BS 2022 Civil & Environmental Engineering, Engineering & Public Policy Additional Major, Environmental & Sustainability Studies Minor

When Greta Markey first began her studies at CMU, she knew she wanted a curriculum which emphasized interdisciplinarity. Pursuing the ESS minor gave her the opportunity to do just that. Markey has found a lot of value in the opportunity to interact with non-engineers with similar environmental justice goals as her. "Not one discipline is going to solve all problems, and it's interesting to see how all the disciplines intersect and work together." Productive discourse with people who have expertise in fields she's unfamiliar with has opened her eyes to other approaches on how to solve the same issues she's interested in.

Markey will be continuing her education from 2022-2024 through a Marshall Scholarship. Through the program, she will be pursuing her master's degree in environmental and international development at the University of East Anglia's Water Security Research Centre (WSRC). She is excited to look into how certain water technologies promote or inhibit equitable access to water on an international scale, spur international conflict, or enable one country to hold power/influence over another and will continue to examine how we can support indigenous voices and representation in the water engineering and technology field."







## Steinbrenner Institute Sponsors 7th Northeast Workshop on Energy Policy and Environmental Economics

Over the weekend of June 13th and 14th, Heinz College hosted the seventh Northeast Workshop On Energy Policy and Environmental Economics. The workshop provides faculty and senior graduate students with an opportunity to present and network in a smaller scale setting. Speakers are assembled to present on a set of papers which reflect the latest advances in energy and

environmental economics. The event focuses on key policy-oriented energy and environmental issues through public economics, development economics, health economics, industrial organization, and macroeconomics.

The weekend featured presentations on longer papers with discussants, presentations on shorter papers, and quick, five-minute egg timer sessions, which allowed participants to sketch out an area of current research and highlight central findings. This year's event saw around 45 people in attendance.

This year's Northeast Workshop was organized by CMU's Karen Clay, Akshaya Jha, Edson Severnini, and University of Pittsburgh's Jeremy Weber and had generous support from the Scott Institute, the Steinbrenner Institute, the Tepper School of Business, and the University of Pittsburgh, Graduate School of Public and International Affairs.

## The Steinbrenner Institute has a new website!

Scan the QR code below or head to [www.cmu.edu/steinbrenner/](http://www.cmu.edu/steinbrenner/) to check it out.



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## Congratulations to Professor Joel Tarr on his Retirement!

Professor Joel Tarr, a Steinbrenner Institute Faculty Affiliate, has been at Carnegie Mellon University since the Carnegie Institute of Technology merged with the Mellon Institute of Industrial Research and the university became known as CMU. After five and a half decades of service to the university, he has now retired. He served as the Richard S. Caliguiri University Professor of History and Policy in the Department of History with joint appointments in the School of Public Policy and Management and the Department of Engineering and Public Policy before retiring.

Professor Tarr “studies the environmental history of cities and the history and impact of their technological systems” and “is particularly interested in using history to understand contemporary problems.” Professor Tarr taught classes like Perspectives on the Urban Environment and Pittsburgh and the Transformation of Modern Urban America and supported over 24 doctoral dissertations. He has won many prestigious awards for his work, including the Society for History of Technology Leonardo da Vinci Medal (2008), American Society for Environmental History Distinguished Service Award (2015), National Council on Public History Founders Award (2018).

An event celebrating Professor Tarr was held on May 6, 2022 on the Baker Hall Patio. During the event colleagues recounted the profound impact he has had on their lives. Three of his former students, who have all gone on to become distinguished leaders in their fields, spoke of Professor Tarr's remarkable career, his appreciation for thorough research and good writing, and his continuous support and mentorship. To honor his 50+ years of service to CMU, the history conference room, which can be found on the second floor of Baker Hall at 246A, has been renamed the Joel A. Tarr Conference Room.

