

Environmental Studies

SPRING 2019

The Next Steps

By Md Rumi Shammin, Chair and Associate Professor of Environmental Studies

The Environmental Studies Program in 2018-19 conducted follow-up work that ensued from the 2017-18 program review, which is a structured process to periodically evaluate, investigate, and implement curricular changes and make other improvements to the program. The ES Program is grateful to the three external and two internal reviewers for their time, dedication, and careful analysis of the Environmental Studies Program at Oberlin College. While we are proud of the program's development over the past decade, we embarked on this review process with the intention of taking a critical look at our program and identifying areas for further improvements. We took this review process very seriously and as an opportunity to continue to strive for excellence. We are humbled by the kind comments made by the external reviewers that recognize the accomplishments of the program:

"We were impressed by the great strengths of the academic program, its faculty, staff, and cocurricular elements."

"It is clear that all aspects of Oberlin's Environmental Studies Program have expanded and grown stronger since the previous external review in 2006."

"The ES Program has met and exceeded the goals set out in that previous review report and the Program's response."

The reviewers highlighted other program assets:

"Program-wide commitment to issues of diversity, inequality, and environmental justice."

"Program's commitment to community-based learning in multiple classes across the curriculum."

"The collegial atmosphere and collaborative relationship between core and affiliated faculty."

We are also thankful to the internal reviewers for helping to calibrate the observations and recommendations of the external reviewers in the Oberlin context. The



Outgoing chair Rumi Shammin (right) with recently retired ESPC member Denny Hubbard.

Environmental Studies Program Committee (ESPC) concurs with their assessment that: "The program review in 2017-18 shows that the Environmental Studies Program has developed significantly since its last program review; indeed, its progress from then to now makes this review feel in some ways less consequential—now more a matter of fine tuning and adjusting than making major revisions or innovations."

While we are pleased to know that the reviewers commend the overall excellence of the program, we are committed to addressing their recommendations regarding curriculum, faculty/staffing, cocurricular programs, and student career preparation and advising. We have already addressed several of the recommendations through planned and implemented changes. In addition, we have

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formed various subcommittees to address areas that require thoughtful deliberations and revision of existing documents. Overall, it is our intention to address the recommendations of the outside and inside consultants with appropriate, meaningful, and actionable steps.

This is also a time of leadership and personnel changes. After two years of excellent service, our administrative assistant, Rosalind Soltow, moved on to work as a development associate at the Nature Center at Shaker Lakes. While we will miss her impeccable management of administrative and student affairs, we are happy to see her advance in her career and wish her success in her new endeavor. We also are going through a transition in student leadership in program governance. Our wonderful student reps—Ramsha Babar, Ananya Gupta, and Amy Wang—are handing over the batons to Madeleine Gefke and Olivia Vasquez, who will serve through the end of spring 2020. Our student reps participate in program governance, represent the majors, and organize various student activities. Welcome Maddie and Olivia!

Long-term ESPC member Denny Hubbard retired this year. Denny has been a valued member of the ES program,

and we thank him for his years of dedicated service and wish him our very best in his future adventures. Finally, as I hand over the chairship to Professor Karl Offen, I look forward to new initiatives, ideas, and adventures that the new leadership might introduce while refocusing my full attention to research and teaching.

This past year has also seen significant national and international environmental policy and political roadblocks—all at a time when new and emerging knowledge is pointing to worsening climate change impacts and forecasts, along with an escalation of social and environmental injustice. These are times of complexity, turning points, ingenuity, collaboration, despair, resistance, creativity, and innovation. These are times when the best of intentions collide with the worst of instincts. I believe that these are the times that Oberlin students are best prepared for—to harness the breadth and depth of their liberal arts education to embark on a journey to solve real problems of the real world to make real differences. We have 43 ES majors and 11 minors graduating this year. We wish you success and hope that your Oberlin education has prepared you well to rise to the challenges of your times.

Reflections from Environmental Studies Seniors

IFY EZIMORA



The capacity to navigate the environmental studies major in an interdisciplinary fashion has been the cornerstone of my experience at Oberlin. I was able to mold various subjects I was invested in—environmental justice, psychology, and community building—into my environmental psychology pathway within the major.

Originally, I applied to Oberlin intending to major only in psychology, however, after engaging in research for and working on the Environmental Dashboard as a STRONG (Science and Technology Research Opportunities for a New Generation) Fellow the summer before my first year, and experiencing just a portion of what ES had to offer, I decided to double major in ES and PSYC. The faculty members I formed relationships with during my STRONG research have guided and pushed me to be

the best student I could be. Because of the advice they gave me, I was able to cultivate the skills I needed to serve as an Environmental Studies Program Committee student representative, conduct research seeking to transform negative emotions around climate change and environmental degradation into positive action, and work as a community-engaged researcher in the communities of Oberlin and Africatown, Alabama.

In 20 years, when I look back at my time in the ES major, I'll remember all the time I spent around the green space in the Adam Joseph Lewis Center (AJLC) and almost capsizing the canoe I rode in during one of the major picnics at John Petersen's house.

NAOMI FIREMAN

Looking back on my journey through the Environmental Studies degree has been quite fun. For one, the AJLC itself has been like a second home to me. I work in the Environmental Studies Information Center (ESIC) and feel excited when prospective students, first years, and people who don't know the space come in with curious looks. I take care of all the plants, from the huge leafy



ones to the small spiky ones, like they are my own. I've figured out where the warmest place in the building is during the winter (Room 104) and often stay in the area, even eating many of my meals right next door in Harkness Co-op.

Here I'll share some significant moments that have helped shape me and will continue to inspire me down

the road:

- While taking Society and Environment in Latin America and the Caribbean, we read the book *1491*; I still remember the shock and wonder I felt learning the untold truth about pre- and post-colonial history, the Pristine Myth, and biopirating.
- During Systems Ecology, we walked down wooded paths identifying trees and shrubs; I felt so connected to the species and surroundings of Northeast Ohio!
- In Sustainable Cities, my academic collaborators and I worked on designing a new Western Entryway to Oberlin and presented it to various city council members. Their appreciation and excitement with the project grew my mind seed of a potential career in urban planning and design that was planted years before.

This list would also include opportunities to study rice farming in Japan, live abroad in Ecuador, and attend conferences to present research. I appreciate the truly interdisciplinary education I received within this major and feel prepared to take on anything the world of sustainability might throw in my path.

KIERAN MINOR

I entered Oberlin knowing I cared about environmental issues, but not that I'd be an ES major. It was the little things my freshman year that convinced me: impromptu truck rides to George Jones Farm for my 101 project, spending afternoons in the ESIC (wintertime) or the orchard (springtime), and meeting passionate and motivated classmates who would become dear friends. I learned to love the way certain classes encouraged me to dig deep into specific subjects, as well as the major's emphasis on off-campus experiences, which took me from interning



at a hospital in Arizona for winter term to studying conservation in India for a whole semester. It encouraged me to think big about how history, public policy, and environmental justice intersect.

The thing that will stick with me most, however, is the collective passion of the faculty in their respective fields: they are so knowledgeable and willing to share that knowledge with students and are the unifying characteristic that pulls together the various pathways through the ENVIS major. Special thanks to Karl and Chie, who have guided me toward the things I want to study and spent many hours talking about various projects, applications, and interests with me. Thank you to my classmates, finally, whose individual talents are something I'll remember for a long time to come.

YAEL REICHLER



In many ways, the ES program has guided and shaped my experience at Oberlin. Coming in as a first year, I already had excitement around food and agriculture and jumped at the opportunity to work for the Oberlin Food Hub in town. Working for a nonprofit food and agriculture organization in Denver for my first winter

term, I knew I was beginning to find a subject I was passionate about, but did not have a sense of the bigger picture into which the work I was doing fit.

ENVIS 101 my second semester was what allowed me to truly think about the dynamic elements of environmentalism and approach them through a social justice lens. The ES program opened up the opportunity for me to engage with the environment and climate change through myriad angles; policy, indigenous environmentalism, and urban design, among many others. Through internships and research trips made possible by ENVIS grants, as well as through a private reading and capstone with Professor Janet Fiskio, I was also able to directly pursue my passion of food and agriculture and better understand the crucial role that food justice plays in thinking about and working in this field.

Ultimately, the most rewarding aspect of my experiences these past four years has been my collaboration with community members, peers, and faculty. I am incredibly grateful to have studied and grown with the many people involved in the ES program and know that I will carry this sense of community and support with me as I graduate.

Faculty and Staff Bios

PAUL BREHM



This past year has been rewarding on a variety of fronts. I have enjoyed refining the Environmental and Energy Economics courses I am now teaching for the second time. I have also made progress on a range of research projects, several of which have benefited from the help of Oberlin research assistants. Two new projects look at the effects of

natural resource booms in Indonesia. While results for both projects are still preliminary, I am excited about their potential. The first project examines how natural resource booms affect fertility rates and hopes to shed light on an ongoing puzzle in the literature—why are fertility rates lower in wealthier countries, but rise within a country when incomes increase?

The second project looks at so-called “Dutch Disease”—potentially negative economic impacts due to currency inflows—in the context of resource booms and Indonesia’s developing manufacturing sector. As a first stage, it hopes to examine differences in outcomes based on whether the manufacturing field is resource-intensive or not. It then looks to extend the literature by looking at whether resource intensive and non-resource intensive industries respond differently to changes in government expenditures, as well as by how elastic their supply chains are.

I was able to present more complete work several times over the last year. Most recently, I visited Oklahoma State University. I also presented at the Midwestern Economics Association in St. Louis and the World Congress of Environmental and Resource Economists in Gothenburg, Sweden. While in Sweden, I took the opportunity to do a little additional traveling, visiting Stockholm and journeying north for the Midsummer Festival.

JANET FISKIO

It was a busy and exciting year at Oberlin. In the fall I taught three linked classes: ENVS 230: Environmental Justice and Local Knowledge, ENVS 330: Africatown Immersion, and ENVS 430: Environmental Justice Methodologies. This sequence offers students a pathway for learning and practicing ethical community engagement and environmental justice research. As part of ENVS 330, on our 17-hour drive down to Africatown, we visited the National Memorial for Peace and Justice and the museum From Enslavement to Mass Incarceration. The memo-

rial and museum, created by the Equal Justice Initiative, offered important context for our work in Africatown by placing our environmental justice work in the history of enslavement and Jim Crow, as well as history specific to Alabama, such as Civil Rights activism in Birmingham, Montgomery, and Selma. While in Africatown, ENVS 330 students presented research projects, as well as attended community meetings and went door-to-door as volunteers for the organization Clean Healthy Educated Safe and Sustainable (CHESS).

This semester I’ve immensely enjoyed returning to ENVS 302: American Agricultures. Drawing on new texts that have become available since I last taught the course, including Monica White’s *Freedom Farmers* and Leah Penniman’s *Farming While Black*, I have significantly expanded the sections on Black agrarianism and decolonial and Indigenous food sovereignty. I will teach a new course, *Dissent*, in fall 2019, and plan to teach in a StudiOC cluster, *Race in the Anthropocene*, with Charles Petersen and Gunnar Kwakye in the near future.

I’m pleased to report that my book *Climate Change and Emancipating Dissent* is under review. The book contributes to the fields of environmental humanities, American studies, African American literature, Indigenous studies, and performance studies. I argue that confronting climate change requires witnessing to and taking responsibility for injustices with long histories, including



Faculty and Staff Bios, cont.

enslavement, genocide, colonization, white supremacy, and mass incarceration. Settler industrial civilization, the driver of climate change, is not only dependent on fossil fuels, but also on these histories and persistent structures of racism and imperialism. At the same time, the event of climate change opens an opportunity for truth telling, repentance, and alliances for social change. In *Climate Racism and Emancipating Dissent*, I turn our attention to decolonial aesthetics and politics, including literature and speculative fiction, dance, ritual, direct action, and anti-racist coalitions, with a particular focus on the transformative possibilities of ceremony and mourning. This book synthesizes the range of my interdisciplinary research, as well as my participant-witness and oral history work at the Tar Sands Healing Walk in Alberta, Canada, and in Africatown, Alabama. I hope to spend the summer revising this manuscript for publication. Other than that, I look forward to watching for bobcats, crossfit, backpacking, and chasing chipmunks away from my sunchoke this summer.

ROWAN HANNAN



I am the only full-time staff member assigned to the Environmental Dashboard project and play a key role in project management. I coordinate collaborations across Cleveland partner organizations, Toledo, and Oberlin. I hold a BS in botany and zoology from Ohio Wesleyan University, and I have a passion for conservation

and environmental education. I have experience as a sustainability intern for the City of Delaware, Ohio, and have work experience in botany and horticulture in the Cleveland metro region.

While I am a newcomer to this community, you can often find me walking around Oberlin to maintain screens and collect community data with my standard poodle, Luna. I also manage the new Environmental Dashboard screens in Cleveland’s Great Lakes Science Center and was responsible for designing a permanent lobby exhibit for the project.

I am a dual-citizen (Australian/U.S.) and have been living in Cleveland for the past three years, though I am often traveling. I just returned from a two week trip to Tokyo, where I took cooking classes, practiced Japanese, relaxed in cat cafés, and spent way too much time in the

arcade. In the winter, I enjoy snowboarding with my family in Pennsylvania. At home, I enjoy competitive gaming and collecting insects.

BEN HOBBS

The last year has been full of new and exciting things for me. At the college I’ve had the opportunity to join the Green Edge Fund Board as a faculty advisor. In the past year, it’s funded projects ranging from the lighting retrofit of the AJLC to the Evergreen Energy survey of the proposed waste hot water line from the local landfill to the college campus.

During the fall and the spring semesters, I had the chance to supervise both private readings and independent research projects. These included a project evaluating solar options based on environmental factors that impact efficiency, and a capstone project comparing the viability of agricultural autonomy for different geographic regions. Within the city of Oberlin I joined the board of Providing Oberlin With Efficiency Responsibly (POWER). POWER is a local nonprofit that provides Oberlinians with home energy and efficiency audits, free of charge, and aids in bringing less efficient homes up to current standards as part of Oberlin’s commitment to carbon neutrality.

Last June I attended the Better Buildings Summit in Cleveland, sponsored by the U.S. Department of Energy. The conference convened public and private entities to discuss best practices in both new and existing buildings. On a personal side, I became a Federal Aviation Association licensed Unmanned Aerial Vehicle (Drone) operator, enabling me to start a side business in drone-based aerial photography and videography called AeroSkout. I’ve enjoyed getting beautiful aerial footage of the AJLC, the city of Oberlin, and the surrounding areas. Look for AeroSkout footage in the newly updated AJLC website, coming soon.



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Faculty and Staff Bios, *cont.*

KARL OFFEN



This year I'm grateful that I could help a dozen advisees get over the graduation line. This is the biggest graduating cohort I have advised since coming to Oberlin in 2015. I'm also grateful for receiving financial support once again from the Doris Baron Environmental Studies Research Fund. Counting last summer, I supported

four students working on some of my research projects. These included an article on the importance of the green sea turtle in shaping European colonization, piracy, and intra-imperial rivalries in the colonial Caribbean, another article illustrating the connections between the geographic imagination and English designs on Central America in the colonial period, and my ongoing book project exploring the intersections of biography and environmental history in eighteenth-century Atlantic world.

Personal highlights of the year include a fall break trip to Japan and a spring break trip to Jordan where I visited my daughter, Antonia '20, who is studying Arabic and peace-building through environmental cooperation in Amman. The whirlwind trip took us to see the Roman ruins of Jerash, the Nabataean "city" of Petra, the desert landscapes of Wadi Rum, and the Dead Sea area. Another highlight of the year was my family's latest four-legged acquisition, Ferrin. He's already three times larger than he appears in this photo, but he's still a sweetie who loves all people, dogs, and our cat.

SWAPNA PATHAK

During summer and fall 2018, I worked closely with the Oberlin College president's office to complete a two-year long accreditation process with the UN Framework Convention on Climate Change. Oberlin has joined the ranks of many peer institutions and top universities that are able to send their faculty and students to attend international climate change negotiations for academic purposes. I'm looking forward to taking a small group of Oberlin students to the UNFCCC negotiations in the future. This past year I also hosted a couple of speakers, including Elizabeth DeSombre, an Oberlin alumna and chair of the ENVS program at Wellesley College, to present her recent work on the psychology of environmental behavior. One of the joys of being in Oberlin for me is to watch our students transform from being recipients of



Swapna Pathak writes: "It was initially challenging to switch gears after a year-long research leave (2017-18) and dive back into Oberlin's hubbub. However, returning back among my colleagues and students reminded me why I love this place so much."

knowledge to creators of knowledge. I currently chair the ENVS honors committee and feel very proud to see a rise in the number of our majors interested in conducting their own research every year. This year five students worked diligently on independent research on topics that they feel passionate about. I personally served as the primary advisor to Kelly McCarthy, who wrote a wonderful honors thesis on "Silent Spring and the narrative politics of the environmental decade."

This year has also been a productive year for my research. I published the chapter "Equity in Global Stocktake: The Road Ahead for the Paris Agreement" in an edited volume on the implementation of the Paris Agreement. I am working on two research projects; one focuses on post-colonial theory and norm diffusion in international environmental regimes. The second focuses on international negotiations on climate change from the lens of "practice-theory" in international diplomacy. I am working on applying for an NSF grant that will allow me to gather data and conduct focus-group based analyses at multiple fora of climate change negotiations over a period of two to three years.

Outside of Oberlin, my personal highlight was to hike the entire breadth of the Grand Canyon, about 26 miles, in a single day, and then back. It was an exhilarating experience, but the next time I plan to go slow and smell the roses.

Faculty and Staff Bios, *cont.*

JOHN PETERSEN

Every year is a busy year in Oberlin! On the professional front, as described elsewhere in the newsletter, Cindy Frantz, Rumi Shammin, and I received a \$120,000 grant from the Cleveland Foundation to begin expanding the Environmental Dashboard project into Cleveland through a collaboration with the Great Lakes Science Center and a number of Cleveland-based organizations. Rowan Hannan joined the Dashboard team as project manager and has been exercising great skill working with our student and community collaborators to make the first phase of this Cleveland project successful.

Cindy Frantz and I also received grant funding to travel to Singapore and Hong Kong in January of 2019 to explore a new research project focused on intercultural differences in systems thinking. My work on applied ecology also has a few notables. Senior Naomi Fireman completed an honors project with me focused on summarizing eight years of student-faculty research examining food production and carbon sequestration in an experimental hazelnut orchard initiated at the Lewis Center—hybrid hazel seedlings provided in 2011 by woody agriculture pioneer Philip



Rutter, OC '78. In early 2019, I published an invited peer-reviewed chapter in Elsevier Press' 3rd Edition of the *Encyclopedia of Ocean Sciences* on "Mesocosms: Enclosed experimental ecosystems in ocean science."

Students in my classes—Systems Ecology, Practicum in Environmental Communication, and Systems Modeling-Systems Thinking—continue to impress me with the quality of their real-world projects, which are advancing our understanding of sustainable agriculture, carbon sequestration, and human thought and behavior. Their work with community partners in Oberlin, Toledo, and Cleveland continues to advance sustainability and resilience in these communities. On a personal note, my daughter, Lily, started Oberlin High School, and Luke started sixth grade at Langston Middle School. As I watch many of my colleagues become empty nesters, I want to treasure time with my kids. Lily has been a great helper on collecting "rating curve" data on Plum Creek during rain storms. Luke and I enjoy playing music together most evenings.

CHIE SAKAKIBARA



I have spent the first-half of my junior faculty leave at Dōshisha University in Kyoto, Japan, as a visiting faculty fellow for the Associated Kyoto Program, a nonprofit independent organization sponsored by 13 liberal arts colleges across the United States. I had the privilege of teaching Nature, Culture, Interpretation: Kyoto and Japanese Environmentalism

to 15 students from various colleges across the country, including Oberlin, Williams, Colby, and Pomona. My time in Japan gave me a new and fresh perspective of the country, which will be incorporated into my future teaching and research.

During the fellowship, I traveled to Hokkaido to initiate my collaboration with Ainu, the indigenous people on the northernmost island of Japan. My fieldwork titled "Community-Partnered Exploration of Ainu Environmental Justice and Heritage Resources" was funded by a research grant from the Foundation for Research & Promotion of Ainu Culture. Oberlin's Allen Memorial Art Museum (AMAM) recently received a gift of historical Ainu photographs taken in 1908 by the German-American photographer Arnold Genthe (1869-1942). My fieldwork was the first step toward recovering detailed contextual information about the photographs,

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Faculty and Staff Bios, *cont.*

and the discussion will continue on how best to develop community-wide consensus on the proper and future access and uses of these materials by the community. Kevin Greenwood, Joan L. Danforth Curator of Asian Art, and I plan to co-curate an exhibition on the Ainu culture and environmental history at AMAM in fall 2022. We hope to transform this project into an international, intergenerational, and intercultural exchange by inviting the active participation of the Ainu youth, elders, and members of Oberlin College.

In fall 2019, I look forward to offering a new course, Introduction to Indigenous Peoples and the Environment, to explore with my students the indigenous peoples of North America, their lands, natural resources, and their expressive cultures as a form of cultural solidarity and resilience.

MD RUMI SHAMMIN

This has been another exciting academic year for me—both in terms of expanding new research and serving my final term as chair of the Environmental Studies Program. I received funding from the Arthur M. Blank Foundation and Luce Initiative on Asian Studies and the Environment (LIASE) to support my field work in Bangladesh. I traveled to Bangladesh in August 2018 and again in January 2019 to pursue two research projects. The first focuses on community-based climate adaptation initiatives in Bangladesh with the goal of learning from three decades of experience in dealing with natural disasters that might inform programs in small coastal climate vulnerable communities in the U.S.

The second project emerged from my field visits for the first project, as the climate vulnerable communities that I have been studying in the Cox's Bazaar district were in the vicinity of the Rohingya refugee camps, where about a million refugees from Myanmar have been accommodated. In January 2019, I visited the Rohingya Refugee Camps to observe the crisis in person, learn about environmental impacts and current responses, and interact with both the refugees and people from various organizations who are working in the camps. This has been a transformative experience that is likely to significantly influence my future research trajectory.

I recently received a Global Liberal Arts Alliance (GLAA) grant to attend a conference on migration and borderlands in Greece in summer 2019 to interact with scholars from around world who are working on refugee issues, present my Bangladesh research, and develop potential teaching and research collaboration on refugees, sustainability, and resilience. Five Oberlin student



At the Kutupalong Rohingya Refugee Camp in Bangladesh, January 2019. Photo courtesy Md Rumi Shammin

research assistants are working on these projects with me. In addition, I have continued my engagement with the Environmental Dashboard research group that received a grant from the Cleveland Foundation to expand its scope in the Cleveland area. I am also working on a paper measuring and mapping urban food access in Cleveland that is in the final stages of publication.

As chair, I have been focusing on following up on the 2017-18 Environmental Studies Program Review (more on this in my column on page 1). I have maintained my commitment to increasing diversity in the ES curriculum and facilities, creating an inclusive learning environment, and enhancing student access to career resources. I have also been participating in the Career Communities initiative at the college level and serving on the General Faculty Committee on Community-based Learning.

2019 ES Student Awards

SCHAENING MEMORIAL FUND AWARDS

The Ann Marie Schaening '87 Memorial Fund provides support for students pursuing winter-term projects related to the environment. Seven students were granted awards in January 2019:

Maya Seckler '21
Daniel Hill '21
Nathan Carpenter '20
Tyler Hartman '20
Will Bertrand '20
Sophie Shalit '20
Ella Moxley '22

DORIS BARON FUND

The Doris Baron Environmental Studies Student Research Fund supports independent research projects proposed by students and designed to increase knowledge of and appreciation for environmental studies. This year the fund will support two group research projects:

Nathan Carpenter '20
Kaylee Elliott '19
Ifunanya Ezimora '19
Michael "Santiago" Roman '20
Kieran Minor '19
Rashad Saleh '19

ARTHUR BLANK FELLOWSHIPS

Established by the Arthur M. Blank Foundation, this grant enables Oberlin students to undertake research and educational opportunities in collaboration with Environmental Studies Program faculty.

Henry Korpi
Lucia Rathbun
Charlotte Price
Liam Hefta
Maya Sosland
Leo Lasdun
Juliana Stoner
Ananya Gupta
Kate Little
Teddy Ment

JOYCE GORN MEMORIAL PRIZE

Joyce A. Gorn Memorial Prize is awarded to one or more students for outstanding work on an extracurricular or off-campus environmental project.

Kieran Minor '19
Yael Reichler '19
Naomi Fireman '19
Ifunanya Ezimora '19

ENVIRONMENTAL STUDIES HONORS

Naomi Fireman
"Experimental Hazelnut Orchard: Exploring Woody Agriculture's Potential for Climate Change Mitigation and Food System Resilience"

Kelly McCarthy
"Literature and Narrative Politics in the Environmental Decade"

Yijia Gao
"How has the introduction of ride-sharing services changed tourists' behavior in cities under revitalization and does ride-sharing help or hurt sustainable tourism?"

Elsa Mark-Ng
"Public Art in Outdoor Space: how environmental art can influence notions of place"

Students Key Players in Cleveland Foundation Grant

By Erin Ulrich '18, Office of Communications Editorial Fellow



Professor John Petersen presenting on the new Environmental Dashboard at the Great Lakes Science Center.

In 2018, Oberlin faculty members John Petersen, Cindy Frantz, and Rumi Shammin were awarded a \$120,000 grant from the Cleveland Foundation to collaborate with the Great Lakes Science Center (GLSC) and other Cleveland-based organizations to begin developing an Environmental Dashboard for Cleveland.

The first phase of this project focused on instrumenting GLSC facility with sensors to monitor on-site renewable solar and wind energy production and electricity, gas, and water consumption. These data are being combined with real-time data on air quality in Cleveland, water quality in Lake Erie and local river systems, as well as information on the positive actions of the city, local organizations, and citizens to improve environmental conditions. In December 2018, the first Environmental Dashboard display of this information was installed in the lobby of GLSC as part of a major exhibit that Oberlin and Cleveland collaborators hope to see expanded into other locations in Cleveland.

Oberlin students have played key roles in every aspect of exhibit design. For example, students in Petersen's fall 2018 Practicum in Environmental Communications course played a central role in developing initial content for the exhibit, as well as in exploring ways in which the GLSC might incorporate Environmental Dashboard technology into their educational programming. Project groups in this class developed the initial designs for both the Building Dashboard component, which provides information about resource flows through the GLSC facility, and the

Citywide Dashboard component, an animated map of the Cleveland metro region displaying its environmental conditions. Another group developed Community Voices content, which combines images and text contributed by collaborators on the project, including the Cleveland Mayor's Office of Environmental Sustainability, the Northeast Ohio Sewer and Water District, Cleveland Metroparks, the Cleveland 2030 District, and the Cleveland Water Alliance.

Outside of this class, a separate group of students are focused on developing the software for accessing, processing, and translating data on environmental conditions into compelling graphics that are displayed on the Environmental Dashboard screens. An additional group of students works with faculty to research the impact of the technology on thought and conservation behavior.

Currently, 18 Environmental Dashboard displays are installed throughout the city of Oberlin, including in the public schools, campus buildings, city hall, businesses, churches, a food pantry, and the Oberlin Public Library. In 2015-16, with grant funding from the Great Lakes College Association, Shammin led a project to install Dashboard at four other liberal arts colleges—Albion, Antioch, DePauw, and Hope. In 2015, in collaboration with Palmer Conservation Consulting and funding from the State of Ohio, Building Dashboard technology was also installed in 42 Toledo public schools.

"There's no aspect of the Dashboard project that students

haven't been involved in developing, implementing, and evaluating," Petersen says. And he's right: Lucid Design, a data visualization firm created in 2004 by Oberlin alums (and ES majors) Vladi Shunturov '05, Gavin Platt '06, Michael Murray '03, and John Petersen '88 first developed Dashboard technology at Oberlin. Lucid now has monitoring and display systems installed in thousands of buildings across the U.S. and Canada.

While some students have gone on to build careers based on their work developing Dashboard technology, for many, the most important part of the project is the perspective it provides. "It's been great to gain context about Oberlin," says junior Grace Bohlsen. "I didn't feel like I had that perspective before this project, but it was actually part of this course." Phoebe Von Conta, the only first-year student enrolled in the Environmental Communications course, says, "this project was helpful to my transition to Oberlin. I've been able to see the bigger scope of Oberlin and be so quickly immersed in the community I'll be living in for the next four years."

Reports by both U.S. agencies and the Intergovernmental Panel on Climate Change indicate that climate change poses a greater threat than previously understood. The work of Oberlin's Dashboard team recognizes that in order to change the world, we must change the way we think. As Petersen says, "over the last two decades, the technology we have developed and the research Oberlin's faculty-student team has conducted has demonstrated that information feedback can be used to shift both thought and behavior."

In his Communications course, Petersen says, "there's so much for students to gain from a project that deeply engages them in community-based projects. Positive change in the world is always a collaborative process. What these students have done with our community partners in Oberlin and in Cleveland, this is real-world work."



Kick-off event for the design of the Cleveland Environmental Dashboard, involving Oberlin students, faculty, and partner organizations in Cleveland.

CONGRATULATIONS, ES GRADS!

ES MAJORS

Alters, Justin
 Babar, Ramsha
 Blackford, Emma
 Brubaker, Lindsay
 Burchiel, Cole
 Carr, Barret
 Chiang, Pang Fei
 Contreras, Juan
 Cooke, Julia
 Curtis, Robert
 Daid, Nia
 Ercilla Antrobus, Olivia
 Ezimora, Ifunanya
 Feasley, Ketzell
 Feather, Ian
 Feinstein, Jeremy
 Fireman, Naomi
 Gao, Yijia
 Ginsburg, Nicholas
 Glaspie, Giselle
 Halsten, Linnea
 Harrison-Weil, Ethan
 Ingoglia, Julia
 James, Brian
 Jarry, David
 Jiang, Haodong
 Klein, Carrie
 Krancer, Christine
 Little, Kate
 Mark-Ng, Elsa
 McCarthy, Kelly
 McManamy, Laura
 Ment, Gabrielle
 Minor, Kieran
 Peterson, Emily

Raabe, Flannery
 Reichler, Yael
 Simmons, Rex
 Sosland, Maya
 Spittel, Caroline
 Stern, Helen
 Swenson, Anna
 Vock, Otto

ES MINORS

Attebery, Sophia
 Badin, Alison
 Fraser, Linnea
 Jones, Sophie
 Lee, Rowan (Megan)
 Loadholt, Kerensa
 Rosenfeld, Theo
 Sarri-Tobar, Gabriela
 Sheely, Sean
 Smith Hale, Sofia
 Turner, Maria

A Glimpse into the Environmental Studies Program



A. ENVS Alums Tina Bosch Ladd, Lyrica McTeirnan, and Lindsay Baker meet up at the Verge conference in Oakland, California. **B.** Professor Rumi Shammin and members of his Sustainable Cities course take a lunch break on a trip to Detroit. Photo credit: Rumi Shammin **C.** Professor Rumi Shammin's Sustainable Cities course on a weekend trip to Detroit. Photo credit: Rumi Shammin **D.** Professor Karl Offen and his advisees pose as a team for Advisor Games. **E.** Professor Rumi Shammin and Ramsha Babar '20 pass off an egg for the egg race during Advisor Games. **F.** Professor Janet Fiskio prepares for Advisor Games. **G.** ENVS students

enjoy a meal at the fall picnic. Photo credit: John Petersen **H.** Olive Ford and Maya Seckler play in the pond during the ENVS fall picnic. Photo credit: John Petersen **I.** Professor Swapna Pathak leads prospective students on a tour during All Roads. Photo credit: Rumi Shammin **J.** Ben Hobbs and Ramsha Babar '20 meet with prospective students and families during All Roads. Photo credit: Rumi Shammin **K.** Ify Ezimora, Santiago Roman, and Kelly McCarthy at the ENVS fall picnic.

Hybrid Hazelnuts: A Sustainable Food Crop for the Midwest

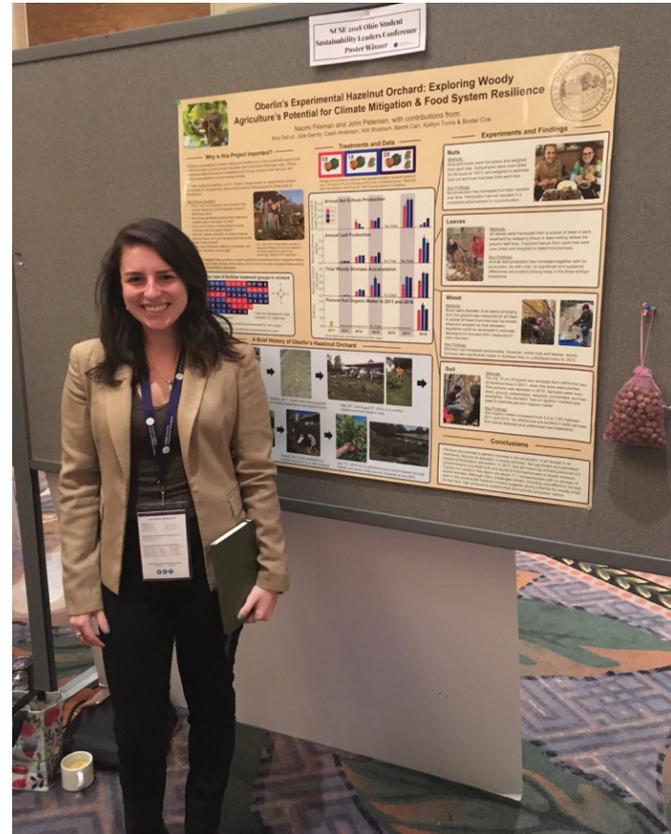
By Naomi Fireman '19

My honors project focused on compiling and analyzing eight years of data on the hybrid hazelnut orchard behind the AJLC annex. In 2017, I participated in Professor Petersen's Systems Ecology class and researched the woody growth and nut production of the orchard at that time. A year later, there was enough data for the first full report to be written about the hazelnut orchard. Because I had been so interested in the hazelnut project, Professor Petersen and I decided it would be a good idea for me to complete this task as an honors project.

The orchard consists of 130 genetically distinct hazelnut trees, 70 of which have been treated with three levels of fertilizer. Almost every year since 2011, students in Systems Ecology (ENVS 316), like me, have collected data on leaf, wood, and reproductive (nut and husk) biomass and soil organic matter in order to track the success of these trees in both producing food and sequestering carbon. We focused on two broad challenges within this research: mitigating and adapting to climate change and transitioning to more sustainable agricultural methods to feed a growing human population.

We documented a general increase in the production of all hazelnut tissues in all treatments. Soil carbon storage increased from 2011 to 2018. The only significant effect of fertilizer was an increase in the production of woody biomass, suggesting hazelnuts are a low input crop. In 2017, this still-maturing orchard produced an estimated 2.1 tonnes/hectare of in-shell nuts compared to typical local soybean yields of 3.4 tonnes/hectare. In addition, by the fall of 2018 the hazel plot had stored 12 tonnes/hectare of woody biomass. Although there are many challenges remaining, including cost-effective harvesting methods, research in this small-scale hazelnut orchard suggests strong potential for hazelnuts as low input, high productivity systems that concurrently sequester carbon.

Completing this project over the course of a year was a wonderful and challenging experience. I loved working with the hazelnut trees in the field and figuring out ways to manage my time and stay motivated. Moving forward, I am excited to incorporate the skills and knowledge I learned from this project into a potential career in ecology and urban design. Additionally, Professor Petersen and I hope to publish an article on this research in an academic journal.



Naomi Fireman '19 presents her research on hazelnuts at the Sustainability Leaders conference in Washington D.C.



The AJLC hazelnut trees after being coppiced. Fireman looked at eight years of data on the hazelnut orchard as part of her honors project.

Adam Joseph Lewis Center: Building Update



AEROSKOUT AERIAL PHOTOGRAPHY

The Lewis Center has been in service to Oberlin College for just over 19 years and continues to perform well and attract positive attention nationally and internationally. Over the past year it has hosted groups from Detroit, Kent State University, University of Pittsburgh, and a Unitarian Universalist group in Oberlin for a conference.

Within the building, several interesting projects took shape over the past year. Room 104 had a face lift, including a minimalist mural depicting a geographic street layout of Oberlin. Grant Sheely, a Living Machine employee and ENVS minor, did a private reading with the goal of increasing the biodiversity of the Living Machine. He wrote a Green Edge Fund grant proposal to fund the

plant purchases and will be planting new species later this spring semester. Another Green Edge Fund proposal was approved for upgrading exterior lights to LEDs. The 59-kW solar array on the roof of the AJLC is original to the building, as are the inverters that convert the DC energy the array produces to AC that can be used in the building. These inverters have begun to show their age, and an investigation is being performed by a third-party vendor to determine the best next steps to bringing the array up to current photovoltaic standards.

On the grounds of the AJLC, five pawpaw trees were added near the west entrance. These pawpaw trees, one of which was dedicated in memory of Alex Chun '08, are additions to our "edible landscape" and should start producing fruit in a few years.

Some plantings were removed, though not permanently. The experimental hazelnut orchard, supervised by Professor John Petersen, underwent a partial "coppicing" (cutting down to its roots) this winter. Three rows, out of six, were cut to the ground, chipped, weighed, and subsequently spread out between rows as part of a soil carbon study that students will manage over the coming years.

Lastly, in the summer of 2018, Biology Professor Emeritus David Benzing assisted AJLC staff in inventorying and marking invasive species that had infiltrated the landscape. Over several weeks, both he and the staff were able to eliminate most of these species. He will return this spring to do another evaluation and help this summer's staff to ensure there are no lingering specimens.

2018-19 ES PROGRAM SPEAKERS & EVENTS

September 29, 2018: Oberlin hosted the annual **Student Sustainability Leaders Conference, "Sustainability in Practice,"** through the National Council for Science and the Environment. This included networking and panel sessions with representatives from nonprofits, private companies, and government agencies to offer insight into sustainability-related career paths as well as a poster session for students' sustainability-related research.

October 8, 2018: Associate Professor in the Department of Spanish and Portuguese at the University of Southern California Sarah Portnoy presented **"Food, Health and Culture in Latino Los Angeles."** Portnoy explored the history of Latino cuisine in Los Angeles and the contemporary Latino food scene, one that sharply contrasts with urban Latino neighborhoods, where access to affordable, healthy food is a struggle.

October 8, 2018: **Indigenous People's Day** was celebrated in a "Vigil of Celebration" on Tappan Square.

October 15-16, 2018: Dr. A.K. Enamul Haque was a featured speaker for the 2018 Global Issues Symposium, Environmental Economics and Policy: Perspectives from South Asia. Haque presented **"Green Economic Growth & the Economics of Climate Change Adaptation"** and **"A Story of Alienation: Rivers, People, & Water."** Haque is a professor of economics at East West University in Dhaka, Bangladesh; director of the Economic Research Group; executive director of the Asian Center for Development; and a member of

the steering committee and the advisory committee of the South Asian Network for Development and Environmental Economics (SANDEE).

November 6, 2018: General Mansour abu Rashid, chair of the Amman Center for Peace and Development, a non-governmental organization dedicated to promoting comprehensive peace and cooperation between Jordan and other countries, shared the **cross-border agriculture work** that the center has done with Israeli farmers around Red Palm Weevil Detection, Barn Owl Pesticide control, and other methods.

November 15, 2018: Professor of Environmental Studies at Wellesley College Elizabeth DeSombre '88 led the talk **"How (Not) to Save the Environment,"** speaking to effective approaches to achieving large-scale long-term behavior change to address environmental problems.

November 19, 2018: Jake Grossman '08, Putnam Postdoctoral Fellow at the Arnold Arboretum of Harvard University, presented **"Smith's Aspen: An Ice Age Relic in the Sandhills."**

Fall 2018: **The Asia and the Environment Lecture Series** took place from September to November with six lectures exploring myriad subjects related to the state of the environment in Asia and intersections with other topics including religion and history.

March 8-9, 2019: Career workshops on how to find and get internships and how to network were hosted in the AJLC and led by the Career

Development Center. The second annual **Environmental Careers Day** took place, organized and hosted by the ES program, the following day. Speakers, predominantly alumni from around the country, spoke of their career paths in fields such as environmental justice, investment banking/consulting, climate change, food and agriculture, environmental education, renewables, and governmental work.

April 12, 2019: Tania Boster and student and faculty participants from the LIASE 2019 winter term study trip to Hong Kong presented **"Community Based Learning & Environment in Hong Kong."**

April 15, 2019: Africatown community leaders Major Joe Womack and Anderson Flen spoke alongside a group of Oberlin students about **Africatown's rich and unique history,** beginning with the landing of the last illegal slave ship and continuing through its present day environmental justice threats, the bold tradition of the Mobile County Training School, and the preservation and advocacy work that Oberlin has collaborated on since 2014 led by Professor Janet Fiskio.

April 19, 2019: Professor Md Rumi Shammin presented **"Refugees & Resilience,"** stories from a LIASE supported trip to the Rohingya Refugee Camps in Bangladesh.

April 28, 2019: **Advisor Games** featured the three-legged race, egg and spoon race, and many others. Competition was high, delicious food was eaten, and students, faculty, and staff enjoyed a beautiful day outside.

Global Issues Symposium: Dr. A.K. Enamul Haque

The Global Issues Symposium brings renowned scholars, policy practitioners, and activists to campus to discuss crucial transnational issues with the college and community. From October 15-17, the Environmental Studies Program, with support from Oberlin Shansi and the economics department, hosted symposium guest Dr. A.K. Enamul Haque, who presented a set of lectures, spoke in classes, and met with students and faculty while on campus. The visit was organized as part of the 2018 Global Issues Symposium in partnership with the International Studies Concentration and made possible through a generous donation from the Isenberg Family Charitable Foundation.

Haque, a professor of economics at East West University (Dhaka, Bangladesh), is director of the Economic Research Group, executive director of the Asian Center for Development, and a member of the steering committee and advisory committee of the South Asian Network for Development and Environmental Economics (SANDEE). His teaching, research, and popular articles focus on climate change, agriculture, and urban issues in developing countries with particular emphasis on South Asia in general and Bangladesh in particular. Haque is also a former colleague and mentor of Associate Professor and Chair of the ES Program Md Rumi Shammin.

On Monday, October 15, Haque presented the lunchtime lecture "Green Economic Growth & the Economics of Climate Change Adaptation." He talked about strategies for climate change adaptation and mitigation in Bangladesh in the aftermath of the Paris Agreement and how those could be synergistic with economic development pathways. More than 35 students were in attendance in addition to several campus and community members.

On Tuesday, students and faculty had



Top: Professor Haque lectures on environmental economics during lunch in the AJLC. Middle Left: Professor of Economics and Environmental Studies Paul Brehm, Professor Haque, and Professor of Economics Maggie Brehm. Middle Right: Professors Shammin and Haque outside the Adam Joseph Lewis Center. Bottom: Professor Haque with guests at the Shansi reception.

continued on page 18

Haque, *cont.*

the opportunity to meet one-on-one with Haque before his second public lecture. Held in Hallock Auditorium that afternoon, “A Story of Alienation—Rivers, People & Water” focused on how a shift in sharing of river instead of sharing of water can generate a win-win solution for transboundary water resources. Haque explained the importance of considering rivers as natural living systems and people as stewards as opposed to managers.

Haque also visited three classes during his visit. On Monday, he was a guest speaker in ECON 231: Environmental Economics, taught by Paul Brehm, assistant professor of economics and environmental studies. Haque spoke to students about the application of environmental valuation techniques. On Tuesday, he gave a guest lecture in Associate Professor Rumi Shammin’s course, ENVS 390: Sustainable Cities, where he spoke on the topic of urban waste management issues and climate smart cities in Bangladesh. On Wednesday, he visited ENVS 323: Global Environmental Politics, taught by Assistant Professor of Environmental Studies Swapna Pathak, where he spoke about Asian environmental regulation in the context of international agreements and related geopolitics in South Asia. Just before the class, faculty and students attended a reception for Haque at Shansi House, organized by Shansi director Gavin Tritt.

Global Issues Symposium organizes events like this to provide students with exposure to speakers from diverse backgrounds to offer equitable representation in dialogues needed to address the most pressing issues of our times. The Environmental Studies Program is thankful to symposium organizer Zeinab Abul-Magd, director of the International Studies Program, and the sponsors for their support in bringing Haque to Oberlin.

2018 Ohio Student Sustainability Leaders Conference at Oberlin



Networking lunch between students and speakers during the NCSE Ohio Student Sustainability Leaders Conference.

The Environmental Studies Program hosted the Ohio Student Sustainability Leaders Conference—a student-run, student-centric conference celebrating undergraduate contributions to the interdisciplinary field of sustainability—last September 29. The conference focused on the theme “Sustainability in Practice.” This event is in partnership with the National Council for Science and the Environment (NCSE) and its other Ohio member colleges and universities: University of Dayton, University of Toledo, Ohio State University, and University of Findlay. The full-day conference engaged student sustainability leaders in both research and career development.

Students had the opportunity to showcase their research, network, and hear from experts and professionals engaged in career fields related to the environment. Renowned Oberlin Emeritus Professor David Orr kicked off the event with a panel discussion on careers in sustainability. Other topics included careers in technology, startup, STEM, government and nonprofit sectors. The day ended with a student panel on campus sustainability initiatives and opportunities. The event was sponsored by the Environmental Studies Program and is part of the program’s larger initiative to provide career development resources and networking opportunities to majors.

Environmental Careers Day Brings Together Students, Alumni, and Faculty to Discuss Paths to Meaningful Work

By Yael Reichler '18

On March 9, the second annual Environmental Careers Day took place in the AJLC through the Environmental Studies Program. The event was divided into multiple themed sessions with 19 guest speakers. Predominantly alumni, the guest speakers spoke about their career arcs, the transition from undergraduate education to their career, and what they wish they had known during their undergraduate experience. Each guest speaker also took part in a question and answer section that included questions previously submitted by students.

The day began early with Ketzey Feasley '18 leading the session “Everything You Need to Know to Get a Job,” with attendees of all years learning important steps to securing employment. As guest speakers began to arrive, exciting reunions took place in the atrium among alumni, faculty, and students—a testament to the community of the Environmental Studies Program. Professor Rumi Shammin

made opening remarks along with event organizers Feasley, Rosalind Soltow '08, Rebecca Kukushkin '22, Yael Reichler '19, Ananya Gupta '20, and Ramsha Babar '20.

In the first session, Environmental Justice, speakers Dyaami D’orazio '16 and Peter Saudek '15 shared their experiences as recent graduates. Peter described some of the worthwhile challenges he pushed through, such as working part-time in order to find a job he is passionate about, while Dyaami described the dynamics of starting a life in a new city. Dyaami also spoke to creating community in both their workplace and living space and their appreciation for the emphasis in their work on relationship building with community members.

In a concurrent session, Investment Banking/Consulting, Ted Brandt '84, founder and CEO of Marathon Capital, gave an in-depth look into his work as well as the current trends in the field. Landon Lerner '06, head of legal at Lime



Ted Brandt '84 speaking to students during an Investment Banking/Consulting session. Photo credit: Yael Reichler

Environmental Careers Day, *cont.*



Students, alumni, community members, and faculty converse over a lunch during the Environmental Careers Day in the Lewis Center atrium. *Photo credit: Yael Reichler*

Electric Scooter Rentals, gave insight into his career path that led him to his current position.

The last session in this section focused on careers related to climate change. Allegra Fonda-Bonardi '11 tuned in from China to speak about how her intersecting interests in Chinese and environmental studies merged into her career at the independent think tank DeTao Group in Shanghai. The session also featured Leo Goldsmith '16, a first-year Master of Environmental Management candidate at the Yale School of Forestry and Environmental Studies. Leo shared his academic focus and passion for climate adaptation as well as his path to discovering what he wanted to study.

During a lively lunch in the AJLC atrium, speakers, students, and faculty learned more about each other over vegan food generously provided by Bon Appetit.

A Recent Alums Panel followed with Shavonne Stanek '16, Anna Moore '18, Leo Goldsmith '16, and Dyaami D'orazio '16 describing their life and career paths after graduation. The alums were open about some of their struggles after college, including finding a community and making enough money. They also shared helpful tips and

emphasized self care as a crucial aspect of post-grad life.

In the next section, Brooke Knapick '04, director of educational program development at the Wetlands Institute, and Stephen Lezak '15, researcher and writer at the Oxford School of Geography and the Oxford Environmental Change Institute, spoke about environmental education.

Dave Sokoll '09, sales representative for Farm Fare LLC, and Natali Terreri '14, data system manager for PCC Farmland Trust, led a session on food and agriculture. They spoke about the various ways of participating in this field and the process of finding a job, many times finding the next job through connections from the first.

The final session in this section was on Renewables, with Jesse Gerstin '07, director at the Clinton Climate Initiative at the Clinton Foundation, and Gabe Klooster '13, associate of renewable development at Invenergy LLC, speaking about what it is like working for a for-profit environmental company. Both spoke about the impact of their work and the idea that the future of environmentalism lies in renewables.

The last session of the event included a section on governmental work with Claire Jahns '03, senior advisor



Taiyo Scanlon-Kimura '15 leads an interactive session on Food and Agriculture during the Environmental Careers Day. *Photo credit: Yael Reichler*

to the U.S. Climate Alliance, and Walt Galloway '69, previously an environmental researcher for the EPA Office of Research and Development. Claire and Walt discussed the benefits of working for the government, especially with the goals of the programs they have worked with being focused on public good rather than profits. A concurrent section on geology/environmental consulting was led by Sylvan Long, a local environmental hydrogeologist and consultant. Sylvan provided useful information about the world of consulting and the types of jobs available in the field and offered the story of his career path as an example to approaching that work.

Excitingly, the final session in this section was led by Taiyo Scanlon-Kimura '15, a fellow at Bon Appetit Management Company, who presented an interactive case study in food and agriculture in which students were able to consider how they would approach some of the challenges and questions he engages with in his work.

Ultimately, the second annual Environmental Careers Day was a success, with speakers, faculty, and students commenting on the wonderful and supportive energy in the AJLC throughout the event.

Research Update: On Multispecies Ethnography

By Chie Sakakibara

In January, my family adopted a puppy from the Friendship Animal Protective League in Elyria. Our sweet Ferrin, an American Staffordshire terrier mix, is now five months old and weighs about 50 pounds. We were thrilled when this four-legged fuzz ball joined our family. Broadly put, my research in the environmental humanities explores human-animal relations, so I've been thinking a lot about Ferrin's interspecies interactions with his human and nonhuman siblings, Kaya (human), Giro (dog), and Neko (cat).

I'm currently writing a book about multispecies ethnography that explores how bowhead whales interact with indigenous Iñupiat in Arctic Alaska in this time of global climate change. This book attunes to the power of nonhuman beings to shape the world and the ways in which Iñupiat *become* "real humans" through relations with "nonhumans," in this case, whales. In short, this is an ethnographic study of two life forms in a shared environment.

Ethnography is often about "people writing" (ethno-graphy), but the Greek root of the word *ethnos* actually means a multitude living together. Learning about Iñupiat-whale relations reminds me that we need to be mindful to the social and ecological complexity of the worlds that we co-inhabit with nonhuman others, as our lives are all enabled relationally through multispecies interactions and, ideally, solidarity. I believe this view contributes to our resilience as we try to survive the Anthropocene with our nonhuman kin.

Thinking of human-animal relations this way makes me feel humble. This complex world is our home. The exploration of multispecies ethnography serves as a platform from which to view our multispecies relationships. It helps us see alternative perspectives of what it means to be human, which can hopefully inform a new ethics of living in, and caring for, our environment. Meanwhile, I just saw Ferrin stealing Kaya's string cheese from the kitchen counter... now Giro and Ferrin are fighting over the cheese, which endlessly entertains Neko. So much drama. No doubt I'm a proud mom of this multispecies household that so chaotically moves forward together.

Oberlin & Beyond: Student Opportunities In Environmental Studies

ENVIRONMENTAL STUDIES STUDENTS ENGAGE in a wide variety of off-campus opportunities during their time at Oberlin and traverse a diversity of career paths beyond graduation. Here we have summarized samples of internships, study away destinations, graduate schools, and careers that ES majors and minors have pursued in the past.

INTERNSHIPS:

- Foresight Design Initiative (Chicago): sustainable design projects
- San Francisco Estuary Institute (San Francisco): fieldwork, research, and grant writing
- National Science Foundation (Stillwater, Okla.): Research Experience for Undergraduate (REU), stream rehabilitation
- Toronto Green Community (Canada): advocacy for sustainable communities
- National Science Foundation (Blacksburg, Va.): REU, greenhouse gas dynamics in drinking water reservoir
- North Carolina Botanical Garden (N.C.): conservation and land management intern

STUDY AWAY:

- CIEE: Sustainability and the Environment (Costa Rica)
- SEA: Sea Education Association
- SIT: Tropical Ecology (Panama)
- SIT: Sustainable Development and Social Change (India)
- Frontiers Abroad: Geology of New Zealand
- Danenberg Oberlin-in-London program
- SIT: Amazonian Ecology and Natural Resource Management (Brazil)
- Cornell University: Earth and Environmental Systems (Hawaii)
- CIEE: Development and Globalization (Thailand)
- Earlham College: Border Studies (Mexico and Ariz.)
- Associated Kyoto Program (Japan)

FIRST DESTINATIONS OF RECENT ENVIRONMENTAL STUDIES MAJORS:

- **Graduate Schools:** MS at Univ. of Michigan School of Environment and Sustainability; MEM at Yale School of Forestry and Environmental Studies; Master of City Planning at MIT; MS in resource conservation at Univ. of Montana; MS in nature, society, and environmental policy at Oxford; PhD in English at U.C. Davis; PhD in science/technology studies at Cornell; MS at London School of Economics; PhD in Climate and Environment Group at Brown
- **Fellowships:** Watson Fellowship; Shansi Fellowship: China, Indonesia; Fulbright ETA: Colombia
- **Positions:** Conservation diversity fellow, Open Space Initiative, N.Y.; marketing associate, Pure Growth Organic, N.Y.; geotechnical engineering technician, Md.; TEDx applications reviewer, Calif.; urban planner, WXY Studio, N.Y.; planning specialist, Detroit Building Authority; international coordinator, Roots & Shoots, Jane Goodall Institute

The Environmental Studies Major



CORE COURSES

- Environment and Society (ENVS 101)
- Introduction to Environmental Humanities (ENVS 201)
- Environmental Policy (ENVS 208) OR Environmental Economics (ECON 231)
- Earth's Environments (GEOL 120)
- Environmental Biology (BIOL 103) or Evolution and Ecology (BIOL 200)
- Chemistry and the Environment (CHEM 051) OR Structure & Reactivity (CHEM 101) OR Chemical Principles (CHEM 102) OR Topics in General Chemistry (CHEM 103)

NATURAL SCIENCE ELECTIVE

In addition to the above:
ONE MORE: Any other NS course on the ES Checklist OR that counts toward any NS major at Oberlin
ONE LAB: Any one of your NS cores or electives must have a lab. Typically, GEOL 120 fulfills this requirement.

SOCIAL SCIENCE & HUMANITIES ELECTIVES

Take at least **THREE** courses from a wide selection of approved SS/HU courses listed in the Checklist of Environmental Studies Major Requirements (*consistent with your pathway, in consultation with your advisor*)

RESEARCH METHODS ELECTIVE

Take at least **ONE** course that qualifies as a Research Methods course. In some cases, the 4th NS course or one of the qualified SS/HU courses may fulfill this requirement.

PATHWAY MILESTONES

#1
 Select Pathway Focus Area
When declaring major

#2
 Complete Pathway Proposal
First semester junior year or earlier

#3
 Complete Capstone Proposal
No later than first semester senior year

#4
 Complete Pathway Report
During final semester

OBERLIN COLLEGE ENVIRONMENTAL STUDIES PROGRAM

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