Letter from the Director

by Karl Offen, Professor and Director of Environmental Studies

I thas been a long year, and it is not over yet: Oberlin's first summer term awaits. Although some classes are taking place in the Lewis Center this spring, including my two classes and those of John Petersen, the building is mostly empty. With the exception of the four rocking chairs, the furniture is all gone, the Environmental Studies Information Center (ESIC) is closed, and students are conspicuous by their absence. What remains are the plants and the waterfall. Hearing the latter reminds me of more vibrant times; I will never complain about noise in the atrium again!

When I wrote for the newsletter last spring, the students were all gone, and the college was mostly closed. Some of us hoped the COVID spring might end by the fall, but of course, it did not. The college initiated a three-term model that would include a summer 2021 semester and a "de-densified" campus by keeping third-year students away in the fall, and second years away in the spring. In the fall, some of our juniors signed up for remote research practicums led by professors Jay

Fiskio, John Petersen, and Chie Sakakibara, or other remote practicums directed by faculty from across campus. When juniors returned in late January, they had been away for almost a year. We know that some in the Environmental Studies family have suffered personal and family hardships, and we acknowledge that the year has been challenging for many.

To my knowledge, Oberlin has never had a summer term: second- and third-year students will be part of an experiment that will be new for professors as well. As vaccinations become more widely available, the opportunity to rebuild communities with longer days and fewer students might turn out to be a wonderful

experience. It is the hope of everyone, however, that we are all back to something closer to normal in the fall of 2021 and that we are able to welcome all students warmly.

Despite the hardships, the year had many upshots. This newsletter is full of activities, scholarship, and creative projects carried out or completed over the last year by students, faculty, and staff. The semester started off with our annual fall welcome back picnic at John's Pond. We convinced the college that this was a networking event, and not a party or gathering. We took our masks off only to eat Aladdin's veggie fare or swim in the pond. As an

appetizer, John gave us a demonstration of his

homemade charcoal maker, which allows his team of students to measure the organic matter produced by the experimental hazelnut orchard outside the Lewis

In October, many participated in a roundtable discussion on sustainability hosted by the Oberlin College Campus Office of Environmental Sustainability. Our very own Stephan Ciulla '21 and Wenling Li '21 took part as featured presenters.

Also in October, Will Tuttle, best-selling author of *The World Peace Diet*, delivered a virtual talk describing how our culturally mandated food choices affect us physically, psychologically, and culturally. In November, the first remote event in our Careers in the Environment Series got underway with presentations on Affordable Green Housing. Oberlin alumni Krista Egger '04, Abe Kruger '04, and Jack Popper '12 discussed how affordable housing is financed and constructed. They also discussed green building certification and related career opportunities in the private, nonprofit, and public sectors. Also in November, LIASE Postdoctoral Fellow in Anthropology, East Asian Studies, and Environmental

Letter from the Chair, cont.

Studies Kip Grosvenor Hutchins gave the talk "Eternity in the Desert: Heritage and the Future of More-than-Human Relations" that focused on his work in Mongolia. The year ended with the announced winner of our annual sticker design contest. This year, Abigail Kantt '22 won with the hopeful artwork associated with this column. Felicidades Abby!

This spring, EnviroAlums intern Lauren Holmes '21 has been working with our wonderful and elected student representatives Phoebe von Conta '22, Lea Watkins-Chow '22, and Audrey Kamal '22, to plan the remainder of our Careers in Environment Series. First up in March was Environmental Communications and Journalism, a conversation between Molly Samuel '04 and Marissa Ortega-Welsh that shared their experiences as environmental journalists working with public radio in Atlanta and San Francisco. Also in March, we heard from Michael Lythcott '70, who described his experiences ranging from working with grassroots organizing to serving as vice chair of the National Black Environmental Justice Network. In April, we'll hear about pursuing

environmental justice with a career in law from Will Rostov '88 and Adrienne Bloch '89. Rounding out the series will be a discussion on Indigenous Rights and Titles by Greg Kehm '88. This series and all the events have been made possible by the generous support of EnviroAlums and the student organizers who did all the work to bring everything to fruition!

Several members of the ES program also participated in an Environmental Sustainability, Equity, and Justice in Oberlin Speaker Series hosted by the City of Oberlin. Speakers included professors Jay Fiskio, David Orr, and John Petersen, plus alumnus Nathan Carpenter '20.

Among other exciting news, former assistant professor Chie Sakakibara was tenured and promoted to associate professor, while former associate professor Rumi Shammin was promoted to professor. A well-deserved and hearty congratulations to all!

Last but not least, I am also happy to report that we will be celebrating the graduation of 27 majors and 9 minors this spring. Many happy returns to the Environmental Studies class of 2021!

Class of 2021 Senior Spotlight



ANNA BOSCO

My time as both an ENVS and biology major helped me grow immensely in the two disciplines; the environmental biology pathway provided an awesome framework to examine how humans interact with the biological world and vice versa, ultimately leading to my focusing on ethnobiology and community-

based conservation methods. Some particularly influential experiences as an ENVS major included studying abroad in the Chilean Patagonia doing back-country conservation research and helping out as a farm and ranch-hand for families in the Cochrane / Tortel region and learning an extraordinary amount about Indigenous environmentalisms from Chie's courses. The ability to carry what I learned from such experiences into my everyday student life not only allowed me to deeply reconsider my own relationship with the natural world, but work toward a more comprehensive and egalitarian definition of environmentalism and the science behind how we currently attempt to make sense of and protect our non-human counterparts.



HANAE GARRISON

My time at Oberlin has been very fulfilling! My work for the Resource Conservation Team (RCT) and AJLC Living Machine has furthered my passion for gardening and community outreach. I've appreciated being a part of the ENVS department and have found the faculty and students to be incredible, supportive people. I never

expected to spend so much time in Ohio, but I've learned to appreciate the beauty of its cornfields from the bike path and have loved exploring places like Chance Creek and hiking trails nearby. Living and dining in co-ops has also been a wonderful part of my Oberlin experience; I've met so many great people cooking and cleaning together. I'll definitely take what I've learned at Oberlin with me after graduation, and I look forward to seeing where we all end up!

JULIA HALM

I have learned so much in my four years at Oberlin, both in and outside of the classroom. Being a part of the ENVS department connected me to wonderful people and



opportunities and was a constant source of community for the past four years. I will always look back on the ENVS picnic as the social event of the semester. Thanks to all of my mentors and peers, I will graduate knowing that I have the tools to succeed at whatever comes next. I can't wait to see where we all end up.



LAUREN HOLMES

I have appreciated my time at Oberlin and in the environmental studies department. I have had the opportunity to take amazing classes like Sustainable Cities and Political Ecology, and also build connections with my peers. While my college experience hasn't been the most

traditional with COVID, I'm grateful for the opportunities I have had to grow as a student and activist at Oberlin.



GUS JAYNES

I feel incredibly grateful to have been a part of the Environmental Studies Program. I knew that I was interested in environmental issues by the time I stepped foot on campus, and yet, this community has widely expanded my horizons of understanding. One of the first formative experiences for

me came at the start of my second year, when I was invited to join Professor Jay Fiskio's research collaboration with the community of Africatown, Alabama. It was a great privilege and pleasure to have the opportunity to work with the community, and to think with environmental justice perspectives alongside the great cohort in the course. Later that year, Jay would become my advisor in an official capacity, and I thank her for all of her guidance and encouragement. Off-campus experiences in the agricultural world proved to be equally important learning opportunities. In the summer of 2019, I interned at The Land Institute (TLI), an agri-science research organization working to develop perennial polyculture farming systems. There, I had the chance to work alongside an accomplished team of scientists, to meet the organization's founder and one of my heroes, Wes Jackson, and to make some lifelong friends with other members of the intern class. Lastly, I would like to extend a big thank you to Professor Karl Offen for taking me on as a private reading student on quite short notice. Thank you for showing me how to follow one's nose and ask the exciting questions. I will miss the ES community dearly and am endlessly appreciative of the valuable interdisciplinary education the program provided for me.



AMELIA LEWIS

Interdisciplinary learning has been crucial to my Oberlin education. As a geology and environmental studies major, I had the opportunity to gain both a firm depth of understanding in a science field and find out the breadth of environmental inquires. I have only taken three classes in ENVS,

the rest are cross listed in other departments. This speaks to the wealth of experience this major has allowed me to have. I danced and listened to the birds by the far reservoir for my Somatic Landscape class, read environmental authoritarianism writing in my Environmental Political Theory class and visited the National Seed Distribution center in Bhutan for my Social and Political Dimension of Environment class during my semester abroad. Through Oberlin, I have found a passion for studying pollution and erosion caused by human industry and decisions. In the future, I hope to work in a role that allows me to be an advocate, a researcher, and a science communicator around these impacts of climate change and others of its farreaching consequences.



SOPHIA MUSIAK

Looking back at my time at Oberlin I have been able to take so many thought-provoking and amazing classes. In every class, I was able to build skills to help me in the future and learn how to make an impact on current world issues. My junior year I got the opportunity to study

abroad in Athens, Greece. There I learned so much about the culture and learned about environmental issues that they face. It was very important for me to be able to see human impacts on the environment in different places. I was a part of the Community Based Social Marketing Lab for three semesters, focusing on implementing behavior changes to combat issues of climate change. This semester I am working on a vulnerability assessment regarding climate change in Oberlin. I have had the opportunity to talk to community members and learn about their ideas and concerns about climate change. Throughout my four years I have been a member on the varsity softball team. This has been a huge part of my time here and helped to shape my experiences.

ROGER ORT

My time at Oberlin has not only helped to build my confidence as a biologist and environmental scientist, but in the past four years I have come to find my place in STEM as well. Come fall 2021, I will be attending Penn State as a PhD candidate in the Geoscience department in order to research—among other things—microbes, especially iron-

Senior Spotlight, cont.



oxidizing bacteria and biogeochemical cycling in a mining pollution context. Though I primarily consider myself a biologist, the environmental studies pathway and coursework has grounded my STEM-heavy curriculum in the social sciences and humanities. Because I hope to research issues of pollution in order to better address them, continuing to learn

more about issues of environmental justice and science communication has been absolutely indispensable for me. I am beyond excited to start this next stage of my life. Thank you, Oberlin, and thank you, ENVS department!



MAYA SECKLER (THEY/THEM)

Oberlin has greatly broadened my notions of what environmental studies entails and what is important to me within that. From GIS to American Agricultures, there is so much knowledge I have gained here that will prepare me for a range of experiences beyond Oberlin. I am so grateful to my

professors, advisors, coworkers, and classmates for making this experience all that it has been.



MOLLY THAYER (HE/SHE/THEY)

Throughout the past four years, I've spent much of my time pursuing the creation of inclusive and sustainable maker communities. After being involved in many corners of making around campus, such as the scene and costume shop in the Theater department, TIMARA electronic

arts camps and research, the Resource Conservation Team, OSCA, EXCOs, and through every winter term I completed, I'm finally culminating my time here with the creation of recycled textiles and garments, hopefully in the form of a community-engaged fashion line. I've sort of had to create my own path on campus in regards to finding a maker and fiber arts community, though I've also felt extremely supported by maker faculty such as Rachel Smith, Abby Aresty, and Nanette Yannuzzi. Additionally, the ENVS major has allowed me the flexibility to conceptualize my lens on the world and actively pursue my chosen pathway, innovative community recycling. After I graduate, I hope to continue to work in community art spaces that prioritize cyclical resource use and accessibility.



ELIZABETH WHITE

Oberlin has been a time of growth for me as I continue to find myself and who I want to be. I have studied abroad in New Zealand, fumbled through Principles of Economics, and even saw a white squirrel in Tappan Square after four years of unfruitful searching. I have adored being an environmental studies major

and getting to meet all the amazing people (students and professors alike) who make up the department. One of biggest regrets is that I didn't get involved sooner in it, but I am still grateful for what I have gotten to experience as much or as little as it may be. As cliché as it is to say, Oberlin's greatest asset will forever be its people. The culture of compassion and activism that we have created on campus is something truly special, and I will seek to carry it with me as I go out into the greater world. I still don't know who exactly who I want to be yet, but I know that with Oberlin behind me, I can embrace the unknown for what it's worth, whatever that may be.



JESS WILBER

As a freshman, I founded the Oberlin College chapter of Citizens' Climate Lobby, or OCEAL. My goal was to work alongside other like-minded student groups to create a powerful and cohesive climate movement on campus. It has been wonderful to see more and more underclassmen value climate advocacy and climate justice

work, to mentor them, and to help them find opportunities for making a career out of their passion for the environment. I left campus in December of 2020 seeing twice as many climate and environmental groups as when I arrived, feeling humbled by the relationships I fostered with such talented and intelligent Obies. My parting words to those that remain in our coalition are these: remember that not everyone will take the same approach to solving climate change. There is a key benefit to having such a wide array of climate and environmental organizations addressing different facets of the larger climate crisis. The ideological differences, unique identities, and lived experiences of our peers will drive them to conduct valuable and important work that aligns with their core values. We must welcome and celebrate this spectrum of work, help our peers find an organization that fits their needs (or support their efforts to create a new one!), and lift each other up in the face of this impending crisis.

Faculty and Staff Updates



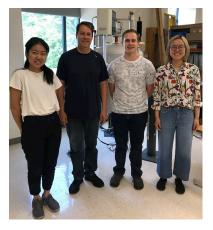
PAUL BREHM

I have been on sabbatical for the 2020-21 academic year, providing me with an excellent opportunity to work on my research. Most excitingly, my research article "Information Asymmetry, Trade, and Drilling: Evidence from an Oil Lease Lottery" was accepted for publication in the *RAND Journal of Economics*. The article uses

empirical evidence from a lottery to examine how trade is affected when parties have different levels of information about an asset. I have also spent considerable time revising two other projects in response to feedback from journals and am pleased with their progress. The first looks at the 2010-2011 Texas electricity sector redesign and shows how the new market decreases costs. However, because air pollution costs were not incorporated into the redesign, we find that social welfare declines. The second looks at how fertility responds to increases in wealth due to natural resource shocks in Indonesia. We find that booms lead to additional fertility. Beyond research, I have also had the opportunity to spend a lot of time with my family. In particular, my son is now running around and starting to talk. We're exceptionally excited for a zoo membership; he has spent the last year watching cats, birds, dogs, groundhogs, and rabbits with great delight!.

JANET CALI

The summer of 2020 passed quickly and I found myself back on campus in my one person office. Many students, faculty, and staff were remote most of the year. It was good to see those who were on campus, and Zoom provided a way to connect with others who were not. Kudos to our students for adjusting to all of the new requirements and procedures throughout the year. This year the college implemented several new computer software programs in the areas of timekeeping, financial and expense processing, catalog and course planning. I receive training for those programs and the official website for our academic office. The learning process was intense, though I have acclimated and believe the new programs and procedures will be much more efficient. I am glad there will be commencement ceremonies this year and offer congratulations and best wishes to all of the ES 2021 graduates!



MATTHEW ELROD

I'm glad that I was instructed that this "faculty spotlight" should focus on my research activities for the past year. It might have been difficult to be as positive by the other parts of my faculty duties affected by the pandemic, but I can report that my work

with my student researchers has been the most normal and satisfying aspect of this trying period.

While I had the unique experience of learning how to transfer the projects of the leaving second-year students to the returning third-year students in February, it turned out to be a smooth process. Our work is aimed at understanding how the atmosphere chemically manufactures aerosol particles, which are a main component of toxic air pollution and a major influencer of climate change (aerosol particles are also newly famous as potential transmission vectors of the coronavirus). In particular, we are interested how chemical processes lead to the presence of organosulfates on aerosol particles. Preliminary evidence suggests that organosulfates might be one of key chemical species that triggers lung damage from exposure to aerosol particle pollution (bad!) and that partially offsets warming from greenhouse gases (good!). Our work uses Nuclear Magnetic Resonance spectroscopy (shown in the background with its favorite humans in the above photo) to identify the organosulfates, which is a technique related to the Magnetic Resonance Imaging instrument used to diagnose abnormal tissue situations in disease and injury cases—in both cases, virtual photographs of hydrogen atoms are the basic data collected. We published three articles reporting our findings in Environmental Science and Technology and ACS Earth and Space Chemistry in the past year.

JAY FISKIO

It's hard to believe that we are more than a year into this global pandemic, and that we are still waiting to return to so many things that sustain us. I miss getting to hug my students, celebrating the end of the semester with potlucks, and traveling to Africatown. This past fall I taught in person and felt the preciousness and fragility of the community we create here. Our students enacted social care in concrete ways, following the protocols that enabled us to continue meeting in person. I was especially grateful to



have the chance to be a part of a StudiOC collaboration with my colleagues Gunnar Kwakye (neuroscience) and Charles Petersen (Africana studies). The StudiOC, Reconstructing the Future: Environmental Public Health and Diasporic Identities, focused on environmental

racism, global public health, history, and justice. My course Environmental Repair placed environmental racism in the context of reparations, looking at the ways that enslavement and the plantation system continues to structure landscapes, producing suffering and premature death in Black communities. Even in the midst of the travel restrictions, my dedicated research assistants have maintained relationships and work for justice. This semester I have been working with two amazing Bonner scholars to collaborate with Vel's Purple Oasis, a community garden and teaching kitchen in Cleveland. We have been working on curriculum, social media outreach, and grant writing.

I've also been working with a cohort of students on the Africatown Collaboration. Africatown, Alabama, is the place where the last ship of enslaved people landed in the U.S. in 1860, and I have been collaborating with the community since 2014. Through summer research, the fall Junior Practicum, and research this spring, students continue to engage with and support Africatown's work of renewal as well as continuing to develop the Africatown Digital Archive. The archive utilizes oral history interviews to tell the proud history of Africatown and to imagine a vibrant future. The goal of the archive is to support the community of Africatown in retaining intellectual sovereignty over their history and story. Oberlin students have been collaborators on every aspect of this project, from interviewing to transcription to designing the website. We are hoping to travel to Africatown in the early fall to celebrate the opening of the Africatown Heritage House and to present the Africatown Digital Archive to the community for its public launch.

BEN HOBBS

I think most of us can confidently say that almost nothing about the past year has been typical. There were no trips, no conferences, and no local meetings. We all became Zoom power users, deftly managing breakout rooms, co-hosting, and screen sharing. I think most of us will be glad to never have to say "you're muted" when someone wants to speak. For me, the past year was not without several positives. I



had the opportunity to present on behalf of the Adam Joseph Lewis Center at the Cleveland 2030 Building Information Series on Net Zero Buildings in May of 2020 where I spoke about the unique

challenges of maintaining a first generation NZB.

In September, Oberlin College convened a Facilities Managers and Building Representatives based Divisional Advisory Committee, for which I was appointed a coconvener. The DAC is charged with discussing facilitiesbased challenges we face and recommending policy changes or amendments for facilities operations to address those challenges. I have had the good fortune to work with our new senior resource manager, Joel Baetens, on surveying and mapping campus monitoring infrastructure in anticipation of the Sustainable Infrastructure Project, which will see Oberlin shift from a district steam system to a district hot water system beginning construction this summer. Additionally, I was named board chair for Providing Oberlin With Efficiency Responsibly, a nonprofit I have been part of for over two years now. The organization received a five-year grant from the city of Oberlin to continue operation and provide subsidization to Oberlin homeowners for the installation of efficiency measures in their homes.

Lastly, I will be teaching a course during Oberlin's first ever summer semester. The course, titled A Practicum in Green Building Technology, will use the AJLC as a living laboratory to understand where green building technologies have come from and then use newer buildings from the surrounding area as learning opportunities for where we have come.

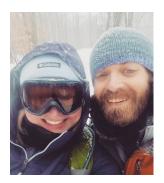
KARL OFFEN

The past year has been a bit of a blur. What I know is that I have finished my final year as program director. I am grateful for all the help I received, especially from former directors, Janet Cali, and understanding and patient colleagues. I had a research trip to the UK planned for last summer. Of course, like others, I had to cancel that trip but I am hopeful I will go this summer. In terms of research, I worked on my book project. Tentatively titled *Mapping Mosquitia: Historical Geographies of a Colonial Borderlands*, the work will be an open-access digital project



written in the open-source publishing platform Scalar. The book will highlight over 120 maps from archives around the world to document and analyze the cartographic construction of the Afro-Amerindian region of eastern Central America during the colonial period. I also wrote some grants to fund the project. Fortunately, at least one already come through and the college awarded me

research status that will allow me to extend my semester sabbatical to a full year. I also fulfilled a request to expand and translate into Spanish my article on the role of the green sea turtle in provisioning the colonial Caribbean. In the coming year I look forward to traveling, seeing family, and getting back to my life in Oberlin post-COVID.



CHRISTIE PARRIS

Hello from the sociology department! As an affiliated faculty member of environmental studies, I am excited to participate in the 2021 newsletter. Much like everyone else, I have been trying to make the best out of our circumstances and decided last summer to reimagine the

lockdown as an opportunity to focus on research and spend more time outside. I research social inequalities and how people make sense of them individually and respond to them collectively. At the individual level, I am interested in how people perceive various aspects of environmental injustices, especially among BIPOC and working class communities. This line of inquiry yielded two publications in 2020. The first, published in *Social Currents*, investigates how Black racial identity impacts assessments of environmental injustices, and the second, published in *Sociological Perspectives*, examines how emotions influence environmentally-responsible behaviors. I am currently working on a third paper with this data set examining proenvironmental policy opinions.

At the collective level, I am interested in how activist organizations and politicians frame social problems and work to lessen inequalities. These interests have manifested in an examination of various social policies.

First, environmental studies professor Swapna Pathak and I coauthored a forthcoming paper in *India Review* examining the post-imperial ideology embedded in India's political stance in climate change negotiations. Next, I completed a project examining the relationship between LGBTQ+ activist organizations and the proper reporting of anti-LGBTQ+ hate crimes at the state level. My coauthors and I published our results in both *Law & Policy* and *The Washington Post*. While research has been a satisfying aspect of my life over the past year, I am glad to be back in the classroom for the spring and summer semesters. I am particularly excited about my Coal, Communities, and Culture seminar because we are able to meet fully in-person!

SWAPNA PATHAK

This year was uniquely challenging for all of us. It was difficult to be away from friends and family living outside of the United States. Moreover, due to personal reasons, I chose to teach remotely this last year, and not being able to see my students in person has been extremely disappointing. However, the year also revealed how resilient and adaptable we can be and how we can find creative ways to connect with each other. This gives me hope that we can change for the better and look out for each other.

For obvious reasons, this year I was unable to travel, and a lot of my fieldwork and research was put on hold. However, it is heartening to know that some of my previous work is coming to fruition. My article, "Managing Emotions in the Classroom: A Cognitive-Ownership Approach to Teaching Environmental Politics and Policy in the Age of Climate Crisis," is forthcoming in the Journal of Political Science Education. This article was a reflection on teaching environmental politics during four years of extreme rollback of federal environmental protections. My second article, "India's Diplomatic Discourse and Development Dilemma in the International Climate Change Regime," forthcoming in *India Review*, analyzes the negotiation strategies used by developing countries like India while negotiating international environmental agreements. This article is part of my broader research agenda that focuses on studying environmental politics from a postcolonial lens. Some of my ongoing projects include exploring the climate justice norm from a postcolonial perspective and thinking about how even "well-intentioned" global discourse on climate migration further marginalizes the "Global South." Just like everyone else, I'm looking forward to resuming some normalcy to meet all my family, friends, students, and colleagues in person.



JOHN PETERSEN

Had this been the year that was planned, I would be writing this update from the UK, where Professor of Psychology Cindy Frantz and I would now be wrapping up an Oberlin

in London Program that we (fortuitously or ironically) themed around "resilience". That and most other things this last year did not happen as planned! This has obviously been a deeply challenging year for people across the globe, particularly those already living at the margins whose health and livelihoods were further stressed and burdened. Yes, this year was challenging for me too, but mostly I just feel thankful: for the privilege of my career at Oberlin; for the resilience shown by my students; for the support and kindness of friends, community members, fellow Oberlin alumni, and colleagues; for living in an old farmhouse in rural Ohio; and for the bonds of nuclear and extended family. Beyond being thankful, I'm actually grateful for the opportunity to spend so much time with my partner Nancy London (ES major '90) and with our children Luke (14) and Lily (17) at an age when they are preparing to take flight. We gardened, raised chickens, played music, cooked new things, explored the Black River watershed, and deeply enjoyed each other's company. That positive dimension of this awful time will be with me for the rest of my life.

Challenges expose both imperfections and strengths. During the last two years, in response to financial challenges, the Oberlin College administration has made some difficult choices that I have disagreed with related to unionized staff and to its contractual relationship with the Oberlin Student Cooperative Association (OSCA). But the larger community that is Oberlin College has been evident as well. In the great Oberlin tradition of constructive engagement, I appreciate the work of fellow faculty and students who stood up to provide what support we could for our unionized colleagues. I am proud of how current students and multiple generations of engaged and committed alumni have rallied in support of OSCA to help secure a future in which aspects of its critical role in an Oberlin education might actually be enhanced even while OSCA's size and financial benefits to student members have been curtailed. At the same time, I want to give the current Oberlin administration credit for innovation and flexibility in response to the pandemic. From all levels,

Oberlin supported a culture in which safe behavior was a norm and held cases and spread to an absolute minimum while providing the best possible semblance of a normal college experience for our students. I've taught safe inperson classes the entire 2020-21 year. I will forever feel a particular bond with the first-year students in the sections of Environment and Society I taught in both the spring and fall of '20. While most of the world our students inhabited was closed down, it was a deep privilege for me to be part of opening up the world of a genuine Oberlin educational experience for them. I was also pleased to be able to support the college's creative decisions to create summer winter term for seniors. I was happy to be able to provide practicum experiences for juniors in the fall and for sophomores in the spring.

In fall of 2020, Cindy Frantz and I (with help from Rumi Shammin) hosted a junior practicum in which we engaged a delightful group of students as collaborators in our research group; together we focused on improving methods for measuring "systems thinking," exploring the influence of systems thinking on behavior, and assessing the efficacy of Environmental Dashboard on behavior. We enjoyed working with Alita Boyse-Peacor, Eric Schank, Julia Blotner, Jonathan Hupfeld and Olivia Gregory. Based on this successful experience in the fall, we sponsored a sophomore practicum in spring of '21 and are enjoying working with Athena Greaves, Abby Morris, Larisa Bushkin, Alita Boyse-Peacor, Camille Franklin, Dorothy Levine, Eric Schank, Julia Blotner and Maia Minson. Introducing Oberlin students into the world of research and forming the collaborative and personal relationships that emerge in this professional context remains when of the great privileges and joys of teaching at Oberlin. You will notice a bit of overlap—Julia and Alita have now been with the research team for over a year and we anticipate will likely be coauthors on papers that emerge from our collaborative research. The challenge of adjusting plans in response to the pandemic has actually created a variety of opportunities. For example, the postponement of the Oberlin in London program afforded me the opportunity to teach a one time "Practicum in Community Climate Resilience Planning in the City of Oberlin". As described in a separate article the 15 students in the class are playing a critical collaborative role in assisting the city in developing its climate vulnerability assessment and adaptation plan. While this is a year that has challenged all of us, I feel so incredibly lucky to have been in the privileged environment that is Oberlin—an environment that has allowed me to work with my wonderful students, colleagues, and family and find ways to learn, adapt, be creative, and be resilient.



CHIE SAKAKIBARA

My heart is full of gratitude for hundreds of people whom I have met and worked with since my very first day at Oberlin College in 2015. I am pleased to report that I will be tenured and promoted to associate professor of environmental studies

as of July 1. Just in time for this promotion, my first book, *Whale Snow*, came out last fall, and I cannot wait to return to my adoptive Arctic home with this book as soon as the pandemic is over (see the New Books entry for more information). I am thrilled to envision my journey ahead with my colleagues, students, and collaborators. Throughout the fall semester, I had the privilege of contributing to Oberlin's Junior Practicum by mentoring three junior students who were off campus. Together we explored the idea of visual sovereignty in contemporary Alaska Native art working closely with Linda Infante Lyons, Alaska Native Sugpiaq artist and environmentalist based in Anchorage.

This spring, I am offering a new seminar, Global Indigenous Health, that reflects my growing interests in Indigenous health and well-being in the midst of the global health crisis. On the personal front, a new member joined our multispecies family in March. Her name is Momo (meaning "Peach" in Japanese), a big sweet girl from the Buckeye House Rabbit Society. Our canine sons Girō (10) and Ferrin (2) are both happy and well, and so is Neko (El Gato, 10). The Zoom technology performed miracles, and I now take weekly lessons from an Okinawa-based sanshin performer, which has been a truly empowering experience. Meanwhile, our daughter Kaya is now 8 years old, and she is diligently improving her violin repertoires. I look forward to the forthcoming post-tenure leave to pause, breathe, relax a little before moving forward with my emerging project with the Ainu community of northern Japan and the Allen Memorial Art Museum.

CALEB STRIPES

The year 2020 was a transitional year for me igniting my pursuit of computer science, challenging me to a difficult situation as the era of CRG came to an end



then landing me into Oberlin's Environmental Studies Program via the Environmental Dashboard Project as a manager. I arrived here through no direct means from the Cleveland Rock Gym where I had been managing an enthusiastic team of climbers providing the public with a means to exercise, challenge and thrill themselves. As long as I can remember, my life's work has been closely tied to the human/Earth

connection. Thus, my involvement with the Environmental Dashboard is a natural course. With my wife Julia by my side teaching 7th grade science, we charge forward framing life as a series of adventures driven by our mutual passion of discovery. It has been fascinating watching her develop STEM curriculum and has provided my own metaphorical sails with wind to cruise on. Each day that goes by I am grateful for all the opportunities life has laid at my feet, but most of all that I have an intelligent, capable, and compassionate companion to keep me going.

In a brief review of my career thus far I have always been dedicated to the idea of using experiences to help people see the environmental impacts of their actions. Usually this took the form of providing adventure to them through climbing, sailing, hiking or just playing outside. Once they were felt inspired by the experience, I would foster awareness in such ways as explaining how these experiences may be changing due to human impacts. I quickly learned that to truly foster these ideals I needed to pair them with examples of successes like the recovery of eagles or consumer driven shifts to renewable energy. Once I made this connection, I began to see the empowerment of people over their life's environmental impact.

With this opportunity I hope to shift my narrative from showing such victories of environmental stewardship to being a part of the team to create them. However, I have not shifted my identity entirely which is why I can still be found pursuing adventure in the outdoors in whatever form that may take.

MD RUMI SHAMMIN

"Sometimes the light's all shinin' on me Other times, I can barely see Lately, it occurs to me What a long, strange trip it's been" – Grateful Dead

This past year has undoubtedly been the most unusual period of time for most people due to the Covid-19 pandemic, and my story is no different. It has also been a strange year to be on sabbatical leave. However, the unusual circumstances yielded unexpected opportunities for me. I worked intensively with collaborators to complete an edited volume on climate change and community resilience in South Asia. The relative isolation in my basement with fewer distractions created the perfect setting for writing and editing. This ambitious project would certainly have taken longer in the absence of the pandemic. I almost feel a sense of guilt about accomplishing something significant during a crisis that cost many lives and disrupted many economies and livelihoods around the world.

As I was planning my sabbatical research before the pandemic, I had plans to conduct research in Bangladesh starting in the summer of 2020, primarily focusing on my project on refugee camp environmental management in the Rohingya refugee camps in South-eastern Bangladesh. However, due to lockdowns and international travel restrictions, I had to postpone my trip. Eventually, I arrived in Bangladesh in the end of December 2020 and have been here since. I was able to visit the Rohingya camps and continue my field work with appropriate covid-



safety measures.

The COVID-19 crisis is playing out differently here in Bangladesh than in the U.S. The government acted early and decisively, so many covid related precautions are more ingrained in the society with broad agreement on what needs to be done. At the same time, this densely populated developing country has been mostly open for business ever

since I have been here. It has been an interesting experience for me to observe the differences in covid-response between a first world country and a developing country.

Finally, I was up for promotion to full professor in 2020-21—an important professional milestone for faculty members. I was able to initiate the process while I was in Oberlin and complete the process from Bangladesh. The final decision on my application is currently pending approval by Oberlin's board of trustees.

Being on sabbatical has made me appreciate Oberlin. I intentionally tried to distance myself from the regular academic life of a typical year. The more I disassociated myself from Oberlin affairs, the more I longed for the routine, the mundane, the challenging, the peaceful and the exciting. In the end, my feelings about this past year resonate with the infamous title of a Grateful Dead album: What a long, strange trip it's been!

CONGRATULATIONS, ES GRADS 2020-21!

ES MAJORS

Anna Bosco Isabel Brown Brigit Cann Sarah Edwards Hanae Garrison Julia Halm Ella Hass Christopher Hays Lauren Holmes

Julian Jacobs

Gustav Jaynes Milend Kolbet Thomas Kumar Leo Lasdun Amelia Lewis Sophia Musiak Roger Ort Mary Perchlik Maya Seckler Helen Stern (Dec. 2020) Margaret Thayer Elizabeth White Jessica Wilber (Dec. 2020) Paige Wilsie Sophie Zandi Alexis Zimmer-Chu

ES MINORS

Lansing Clark Abigail Dyson Madeleine Faubert
Maeve Gualtieri-Reed
Zoe Hecht
Charlotte Hill
Caleb Rose
Hannah Scholl
Isabel Tadmiri
Leilani Vellon

2021 ES Student Awards

DORIS BARON FUND

The Doris Baron Environmental Studies Student Research Fund supports independent research projects proposed by students and is designed to increase knowledge of and appreciation for environmental studies. This year the fund supported three research projects.

Devlin O'Keefe '22 Sionainn Rudek '23 Lea Watkins-Chow '22

JOYCE GORN MEMORIAL PRIZE

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

Brigit Cann'21

For outstanding work on environmental education and community engagement exhibited through her work on developing educational content for the Cleveland Environmental Dashboard exhibit at Great Lakes Science Center and for her work on addressing food insecurity issues.

Madeleine Faubert '21

For outstanding work on environmental education and community engagement exhibited through her work on developing content for the Cleveland Environmental Dashboard exhibit at Great Lakes Science Center.

Julia Halm'21

For community-based research on the feasibility and opportunities for developing a zero-waste consumer composting system for the city of Oberlin.

Lauren Holmes '21

For her contributions to organizing Career Day events in 2020 and 2021. Lauren did an outstanding job both years under challenging circumstances and went beyond her working relationship with EnviroAlums and the broader ES family community.

Maya Seckler '21

For excellent work in developing a "learning garden" based on perennial agriculture at the George Jones Memorial Farm.

Isabel Tadmiri '21

For being an outstanding campus leader on climate change, environmental justice, and racial justice. Isabel has been a central figure for Students for EJ (SEJ) as well as the Africatown project.

Jessica Wilber '21

For tireless community organizing and education to promote positive action to address the climate crisis through Citizens Climate Lobby and Kendal Retirement Communities.

Avehn Zimmer-Chu '21

For being an incredible community member who has been a leader in distinct but overlapping areas, including Asian American Student Alliance, the Africatown project, and LGBT+ issues. Avehn has maintained a sustained presence on and off campus through their work with the Oberlin College Research Fellowship (OCRF) program as well.

ARTHUR BLANK RESEARCH ASSISTANTSHIPS

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

Stephan Ciulla '21 Iliana Lukasik '21 Ethan Michel '22 Shay Rutkowski '22 Elise Steenburgh '22 Adar Tulloch '23 Cordelia Walz '22

ENVIRONMENTAL STUDIES HONORS

Julia Halm, "Exploring Barriers and Benefits to a Food Waste Composting Pilot Program in Oberlin, Ohio."

SIGMA XI, THE SCIENTIFIC HONOR SOCIETY 2020 INDUCTEES

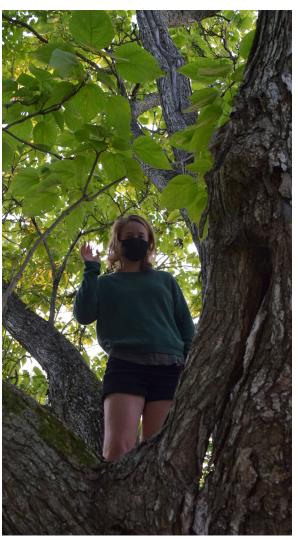
Sigma Xi is an international science research society with over 60,000 members worldwide.

Julia Halm '21

ENVS Photo Gallery _____





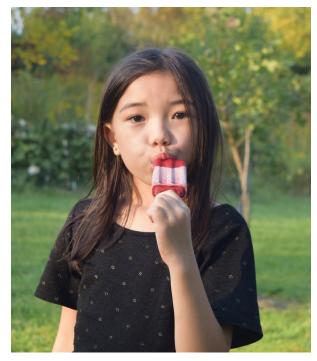












Adam Joseph Lewis Center: Building Update

By Ben Hobbs

his year saw a largely empty Adam Joseph Lewis Center. It was a painful experience seeing this building, typically vibrant with student activity, sit mostly idle over the academic year. Room occupancies were halved in most cases, or more. In anticipation of a mostly virtual learning environment, Oberlin's audio/visual department outfitted several rooms with advanced ZOOM! infrastructure. This included special ceiling-mounted array microphones, wall-mounted cameras, and much needed sound dampening panels in room 201.

We took the opportunity to do some much needed work as the building sat empty. All the temperature sensors in the AJLC were migrated to a new MODBUS framework to simplify their integration into our data management system. In spring 2020, we replaced the three original solar PV inverters inside the AJLC with new Fronius transformer-less inverters that are significantly more efficient and provide a huge amount of data for use within the data management system. The parking lot array was offline most of the early summer due to an animal infestation that resulted in several



chewed wires in an underground wiring box and therefore we lost quite a lot of good production. Oberlin's Facilities Operations

team dispatched one of their electricians for several weeks worth of work rewiring every conductor from the array back to the inverter. This enormous task enabled the AJLC to get back to full production more quickly than we expected.

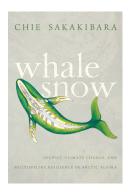
As preparations for the first ever summer academic semester are well under way, the AJLC will host many classes in the coming months. Everyone is excited at the prospect of a full building, buzzing with student energy, and enjoying the unique scenario of summer classes.



HOTOS: YVONNE GAN

Faculty Publications

by Chie Sakakibara, Jay Fiskio, Rumi Shammin



Chie Sakakibara Whale Snow, by Assistant Professor Chie Sakakibara, is the winner of the American Association of Geographers (AAG) 2020 Meridian Book

Award for Outstanding Scholarly Work in Geography. This award is given for a book written by a geographer that makes an unusually important contribution to advancing the science and art of geography. Chie's work shows how the people of Arctic Alaska live in the world that intersects with other beings, how these connections came into being, and, most importantly, how such intimate and intense relations help humans survive the challenges of climate change.

"In Whale Snow, Chie Sakakibara pioneers a vision of surviving humankind and kin safely segueing a conjoined path in the future. On the frontier between tundra and ocean, she engaged in the kind of years-long fieldwork that exemplary geographers have pursued for generations in an effort to understand the why of where. Recognizing that whales and whaling remain integral to Inupiat lifeways, despite the onslaught of globalization and climate change, her work explores and elucidates the significance of bowhead whales to the persistence of Inupiag culture and community.

"This book offers a rare, qualified, and yet substantiated optimism to readers around the world. Hers is a vision of "being in a togetherness" that perseveres against myriad adversities on the near horizon, and that can continue to do so far into the future. This research is exemplary in its sustained commitment to the

community. It demonstrates the best of embedded, ethically-driven, and collaborative knowledge production. Those who seek, through their own studies with diverse cultural communities of practice, to overcome—as do the whaling Inupiat of Alaskan North Slope Borough, in unity with their animal kin—the existential threats of our unprecedented and contingent present will be inspired and transformed by reading this book.

"In so many ways, *Whale Snow* epitomizes the essence of geography as an art, science, method, literary practice, and a way of understanding and relating to the world."— The American Association of Geographers.

All royalties accruing from sale of this publication go to the North Slope Borough Iñupiat History, Language, and Culture Commission.

(Sakakibara, Chie. 2020. Whale Snow: Iñupiat, Climate Change, and Multispecies Resilience in Arctic Alaska. First Peoples: New Directions in Indigenous Studies Series. Tucson, AZ: University of Arizona Press)



Jay Fiskio
Jay Fiskio is happy
to say that her
book, Climate
Change, Literature,
and Environmental
Justice: Poetics of
Dissent and Repair,
has been published

by Cambridge

University Press. Through an exploration of speculative pasts and futures, practices of dissent and mourning, and everyday inhabitation and social care, *Dissent and Repair* illuminates the ways that expressive cultures of frontline communities resist environmental racism while protecting and repairing the world. Many thanks to Avehn Zimmer-Chu '21, who provided

the luminous painting for the cover. Jay is currently working on her next book, *The Cambridge Introduction to Environmental Humanities* (forthcoming 2023), which will be coauthored with Ted Toadvine, director of the Rock Ethics Institute at Penn State University. Jay will be the primary author for the chapters in agriculture, climate disruption, and community engagement. Toadvine will write chapters on aesthetics, animals, and materiality and time.

Rumi Shammin

Rumi Shammin has completed an edited book titled Climate Change and Community Resilience: Insights from South Asia. Since 2011, he has been working on community-based climate initiatives in vulnerable coastal communities in Bangladesh. He has conducted field studies in selected communities, presented his research in national and international conferences, and developed new collaborations. By 2018, he recognized that the body of work that had accumulated over time is probably best represented in a book. Subsequently, Rumi developed a collaboration with Professor Enamul Haque of East West University (Bangladesh), Professor Pranab Mukhopadhyay of Goa University (India), and Dr. Mani Nepal of the South Asian Network of Development and Environmental Economics (Nepal) on this book project. They worked intensively throughout the Covid-19 pandemic to complete the manuscript, which is currently in press for publication in summer 2021 by Springer Nature.

This open access book includes 29 chapters contributed by more than 50 scholars from the seven South Asian countries, two Bangladeshi scholars based in the U.S. (including Rumi) and

continued on page 17

Dashboard Project Update

Eight Summer Research Fellows Collaborate on Cleveland Environmental Dashboard Project



his past summer eight students, working from locations across the country, joined with environmental studies professor John Petersen '88 and project manager Rowan Hannan to play a critical role in advancing the development of the Cleveland Environmental Dashboard project which was just awarded its third round of funding from the Cleveland Foundation.

While the effects of COVID-19 have resulted in the cancellation of many fellowships and internships that are critical in building real-world academic and career experiences, this group of students pulled together remotely to continue the work to make the Cleveland Foundation grant a success.

The team of Oberlin students included computer science majors, graphic design artists, and environmental studies majors who developed computer code associated with Cleveland Citywide Dashboard by enhancing features of the Community Voices software, developing new content, adding a range of new graphical animations, and further improving educational content that is at the heart of the

Cleveland Environmental Dashboard exhibits.

Environmental Dashboard is a technology and an approach to generating ecofeedback designed to engage, educate, motivate, and empower people to embrace sustainable thought and make informed choices that conserve resources.

"In spite of the fact that I have never physically met several of these summer research fellows, I don't think I have ever developed a more unified team," said Petersen. This sentiment could be seen across the board when talking with the students on the team.

Adar Toulloch, a second-year coder for the team, was pleasantly surprised with the experience of working remotely. "I had never met anyone on the team before starting my work with Environmental Dashboard," said Toulloch. "However, I was still able to develop a relationship with the members of the team despite being home in New Jersey."

Like so many students, Sam Craig, a senior from West Lafayette, Indiana, had his summer plans canceled because

Dashboard Project Update, cont.

of the pandemic. It forced him to postpone his plans to study abroad in New Zealand. The team leader for coding, Craig decided he would continue his work with the Environmental Dashboard. Looking to make the best of going virtual, his team "dealing mostly with data flow," had "much of [its] work on the Internet, rendering the task perfectly to do remotely."

One of the challenges, however, was that the display was hundreds of miles away from the programmers, and working on its output required a little innovation. "At times, our project manager would have to set up a virtual video call in order for us to see the outputs of the display we were working on and implement tweaks remotely," said Craig. The team also tested the remote controls for the display from their various locations and watched the display perform the commands.

Petersen breaks down the virtualization of the team's work explaining, "A lot of the credit goes to both Hannan and our senior student programmer Craig. They did a phenomenal job of leading our daily Zoom 'standups' in which each team member shared progress, challenges they were encountering in their work, and we all shared a little bit about how we were doing in our lives. Oberlin students are always amazing and always a great privilege to work with, but the stress of working under COVID-19 and the creativity that emerged really brought out just how talented and special members of this community are."

This is the third time in three years Oberlin College has been awarded a grant from the Cleveland Foundation to support the Cleveland Environmental Dashboard project, which seeks to inspire and empower environmental stewardship and develop STEM education programming in the metro-Cleveland area.

The \$50,000 award continues the partnership with Great Lakes Science Center (GLSC) and supports the implementation of a new Environmental Dashboard being developed in partnership with the Cleveland Metroparks at its Watershed Stewardship Center.

An initial grant of \$120,000 from the Cleveland Foundation in 2018 allowed for the installation of Environmental Dashboard technology as a major exhibit at GLSC. A building dashboard communicates real-time energy use in the facility. Cleveland Citywide Dashboard is an animated map of environmental conditions in the Cleveland metro region, and Community Voices features the actions Cleveland residents are taking to develop greater community sustainability. Oberlin students on the Dashboard team have played a critical role in all aspects of developing and assessing the exhibit.

The outbreak of COVID-19 has forced Oberlin and

GLSC to reimagine their collaboration. Despite a variety of challenges, Petersen believes the team has formed a strong bond.

In addition to Petersen and Hannan, the Oberlin College Environmental Dashboard team includes Professor of Psychology and Environmental Studies Cindy Frantz, who focuses on project evaluation, and Associate Professor of Environmental Studies Rumi Shammin, who plays important roles in content review and experimental design.

Students who were summer fellows on the Environmental Dashboard project include Sam Craig, team leader for the computer coding team; Madeleine Faubert, graphic designer; Dorian Levine, computer coder; Ethan Michel, computer coder; Maxwell Mitchell, senior computer coder; Deena Saadi, research coordinator and Community Voices developer; and Adar Tulloch, computer coder.

Faculty Pubs, cont.



two Oberlin students (now alumni)—Maya Sosland '19 and Amy Wang '20. Readers of the book will get a glimpse of grassroots efforts at sustainable agriculture and

indigenous knowledge, technology adoption, alternative livelihoods, disaster risk reduction, urban sustainability, and equity and justice in South Asia.

The book specifically addresses resilience building and attainment of the UN Sustainable Development Goals linked to community initiatives. The narrative style of writing makes it accessible to a diverse audience from academics and researchers to practitioners in various governmental, non-governmental, and international agencies. At a time when climate change presents humanity with a gloomy future, the stories of innovation, creativity, grassroots engagement, and locally applicable solutions highlighted in this book provides insights into hopeful ways of approaching climate solutions.

South Asian countries have been dealing with the impact of climate change for decades and thus offer valuable learning opportunities for developing countries within and beyond the region as well as many western countries that are confronting the wrath of climate induced natural disasters more recently.

Faculty Research Highlights

by Brad Charles Melzer, John Petersen, Rumi Shammin

Feeding Minds & Bodies: A Five-Year Retrospective for A Practicum in Agroecology at the George Jones Farm

By Professor Brad Charles Melzer, Visiting Lecturer in Environmental Studies

The George Jones Memorial Farm and Nature Preserve (GJF) has been a local sustainability laboratory and resource for Oberlin for many years and has played host to a variety of college courses and activities. The GJF is a 70acre farm and nature preserve located on East Lorain Street about 1.5 miles from campus. Named after a beloved botany professor and community member, the GJF started out as an outdoor laboratory for the Hunt Family children, who lived next door at Hunt's Organic Farm. While homeschooling, Jeremy Hunt catalogued bird species who were living in or migrating

through the wetlands on the property. His discoveries led to a town/gown partnership to create a wetland preserve, which then became a farm as well.

When Brad Masi '93 became involved, the wetland preserve became a home for the Oberlin Sustainable Agriculture Project (OSAP) and under the tutelage of emeritus Professor David Orr, eventually became the Ecological Design & Innovation Center (EDIC). Sometime after, the New Agrarian Center (NAC) was formed, the nonprofit that currently runs the site, as well as its innovative Community Supported Agriculture (CSA) project, City Fresh. City Fresh, which is housed at the GJF, partners with about 12 other farms to bring sustainably grown, local produce into communities in Northeast Ohio that need it most. From June through

November, City Fresh brings healthy food to about 600 families every week, while providing farmers with markets they wouldn't otherwise have access to.

The GIF consists of about 15 acres of farm, 22 acres of woods, and includes multiple ponds, vernal ponds, wetlands, and prairie spaces. There are a number of fields for row culture. raised beds, trellises, hoop houses, and equipment sheds. The heart of the farm is a two-story strawbale building and a stacked sandstone educational mandala garden. The south side of the farm has a farmhouse, barn, various livestock coops, pens, and paddocks as well as six half-acre wetlands in a series that have been used as research sites for restoration ecology data. As a nature preserve, about a third of our land is registered with the USDA Farm Service Agency in the Conservation Reserve Program. Crops that we have grown include spring crops such as asparagus, peas, radishes, and greens; summer crops such as tomatoes, peppers, and eggplant; and fall and winter crops such as turnips, kale, and beets. We have herb gardens, berry patches, and a multitude of fruit trees. Our livestock over the years have included cows, pigs, sheep, turkeys, chickens, ducks, and bees. The farm even boarded a horse for a while!

Overall, the GJF has hosted classes such as ENVS101, Systems Ecology, Intro Geology, Soil Science, and even summer day camps. For the past five years, I have been offering ENVS336, 337, and 338 (this summer)—A Practicum in Agroecology at this beautiful and ecologically diverse site. Many students (who qualify for Federal Work Study) have been hired as farm hands, others have received internships, and still others come out to volunteer. There have been students such as Jacob Roosa and Scott Seiler for whom the GJF was part of their

Clockwise from upper left: GJF at the Big Parade, Farm Manager Pete Morris '11 sorting City Fresh food, Professor Brad Melzer, GJF farmhouse fermentation.









entire Oberlin experience from first year through graduation.

The practicum introduces students to the science of agroecology through hands-on farm activities from seed starting and composting to harvesting and equipment care, all through the lens of changing our perspectives on how we view and experience human interaction with the environment. Human agricultural activities have a huge impact on climate but can become a major driver of regeneration, restoration, and health. Through the design disciplines of Permaculture and Biomimicry, practicum students are also guided through the design process for an agroecological project of their own choice. Some of these projects were theoretical, such as Geena Tognini's rooftop garden for Mudd Library, and some have been implemented, such as Elise Steenburgh's patio garden for OSCA's Harkness. Students are also expected to visit the Oberlin Outdoor or Indoor Farmer's market and share what they find there. Some practicum students have reached out for private readings in such areas as sustainable agriculture and biomimicry. Hannah Rogers, Michaela Squire, and Will Wickham read, watched, sitevisited, received Green Edge Funds to work with local foods, and built web sites around sustainable ag. Elise Steenburgh developed a Biomimicry ExCo. Abby Cali built beehives, went to Jamaica to learn top-bar beekeeping, secured an internship with the GJF, and held workshops on bee-related topics.

Over time, I began to implement site visits to innovative agricultural projects all over Northeast Ohio and have also invited various luminaries to talk or lead a project. We have visited such sites as Lettuce Heads Aquaponics in Wellington, the Ohio City Farm in Cleveland, and Rid All Green Partnership and the Evergreen Cooperative's Green City Growers

in the Kinsman Neighborhood on the East Side of Cleveland. Our most regular and popular guest has been professional forager and mycologist "Mycology Mike" Ballou who takes students out to forage in our 22 acres of woods. We have also been visited by Organic Certifier Mark Cohen, environmentalist John Pardee of the Ohio Rights Group (who spearheaded the legalization of Medical Marijuana in Ohio), Brian Burgess of Burgess electric to connect our solar panels, and Josh Koppen natural builder and board chair of the Permaculture Organization Green Triangle. The current farm manager Pete Morris, who was the City Fresh Farmer Liaison for many years, is also an Oberlin College graduate from the class of 2011.

The Practicum in Agroecology is not only an opportunity for students to get away from campus to a beautiful agrarian setting nearby, it also puts into practice Oberlin College's core maxim of "Learning and Labor."

For questions about the practicum, please contact ENVS or Professor Melzer bmelzer@oberlin.edu.

For questions about the George Jones Farm: pete.morris@cityfresh.org, For City Fresh and the New Agrarian Center contact Anna Kiss Mauser-Martinez annakiss@cityfresh.org. https://www.facebook.com/georgejonesfarm www.cityfresh.org

Engaging students in a Climate Vulnerability Assessment and Adaptation Plan for the City of Oberlin

By John Petersen

In the spring of '21, 15 Oberlin students enrolled in the Practicum in Community Climate Resilience

Planning in the City of Oberlin. This one-time course offering is a unique collaboration with the city of Oberlin in which students are playing a key role in conducting an assessment and initiating the development of a plan for the city. Students are gaining a variety of very practical experiences as consultants and coordinators. They are organizing and presenting data predicting local climate change. They are facilitating discussions and conducting extensive interviews with Oberlin leaders on vulnerabilities and adaptive capacities of this community. Student's work will culminate in a final presentation to community leaders and a draft climate vulnerability assessment and adaptation report for the city.

Adaptation versus mitigation: The work students are conducting this spring is part of a long-term and ongoing commitment that the city of Oberlin has made to positive action on addressing climate change. In 2020 the city of Oberlin released the third comprehensive update to its Climate Action Plan (CAP). However, like most climate action plans, the focus of the City's update is on *mitigation*—actions the city is taking to eliminate municipal and community contributions to greenhouse gasses towards its goal of being a "climate positive" community (i.e. negative greenhouse gas emissions) by 2050. While mitigation is essential to reducing the extent of global climate change, the reality is that the local Oberlin climate is already changing in response to greenhouse gasses emitted over the last two centuries and will continue to change even under bestcase global emission reduction scenarios. Therefore, a next phase in climate planning -- for the city, but really for all organizations and communities—is to assess climate vulnerability and then determine how best to adapt and be resilient in the face

continued on page 20

Faculty Research Highlights cont.

of the inevitable changes that we know are already well underway.

The city identified the need for developing a comprehensive climate vulnerability assessment and adaptation plan in its 2019 CAP update. City Manager Rob Hillard charged Robert (Bob) Hanmer, the chief of Oberlin's fire department, with the task of overseeing the development of this plan. Linda Arbogast, the sustainability coordinator for the city of Oberlin, was charged with supporting this effort. The idea of engaging an Oberlin College class to assist in the project was born in the summer of 2020 by Linda, Bob and me; we recognized that students had the potential to play a key role in researching local climate hazards. We also believed that students could be trained to facilitate discussions with community leaders and then compile this information into reports and presentations.

Identifying Local Climate Hazards

The city is a member of ICLEI—Local Governments For Sustainability. As it did in developing its CAP, the city has followed a flexible and communityfocused process developed by ICLEI. It was critical to all of us that our planning activity start with a sciencebased focus on the known and predicted impacts of climate change on this community. Students used Temperate, a modeling tool developed by ICLEI and Climate Explorer, a publicly available tool managed by the NOAA. Both of these tools allow communities to develop climate predictions using the same models used by scientists associated with the Intergovernmental Panel on Climate Change (IPCC). The powerful feature of these tools is that they allow for "downscaling" to predict hyper-local climate impacts —in our case for the 44074 zip code that includes Oberlin.

For example we were able to produce annual predictions for the city of Oberlin for temperature, precipitation, extreme heat days, flood events, heating and cooling degree days, and a variety of other conditions under low and high emissions scenarios extending out to 2100. Our goal as a class was to develop an easy-to-digest science-based explanation of the known and predicted risks for the city of Oberlin that could be shared with community participants to inform and initiate community dialogue.

Community Participation

Prior to the start of the semester, Linda and Bob and I solicited participation from a diverse group of community leaders. For example, representation was sought from city departments, local churches, public service agencies, schools, cultural organizations, businesses, food providers, and hospitals and emergency service agencies. A premise and understanding of our work is that certain groups within our community (e.g. low income, minorities, elderly, young, etc.) are likely to experience disproportionate negative impacts of climate risks and that it is therefore critical to include community leaders who can ensure that environmental justice serves as an important focal point of vulnerability assessment and adaptation planning. The goal was to engage this group of community leaders in identifying how systems critical to the functioning of the Oberlin community—for example municipal services, emergency services, food supply, and community and cultural assets — are likely to be impacted by the specific climate hazards predicted for Oberlin, such as increased flooding and heat waves. Participants were engaged in both group discussions and interviewed individually to explore climate risks

and the opportunities available for mitigating and enhancing community resilience in the face of these risks.

Systems, Hazards, and Risks

As students in the class came to understand, a new discipline of study and practice and an associated language is emerging to guide the climate vulnerability assessment and adaptation planning process. A community system is a grouping of related and interacting services that are important to community function. A climate hazard is a category of climate events that are likely to negatively impact one or more community systems. A *climate risk* is the impact of a particular hazard on the function of a particular community system. So, for example, emergency services (a community system) is likely to have risks associated with extreme hot days (a hazard that leads to increased frequency of heat-related health events and increased need for ambulance services) and also risks associated with increased surface flooding (a hazard that may make it difficult to transport people in need of health care).

Prior to the semester, Linda, Bob and I worked with ICLEI to identify seven community systems and six climate hazards to consider for the city of Oberlin in this first stage of climate adaptation planning. Community systems considered for Oberlin include: Food, Community & Culture; Emergency Services; Public Health; Energy Systems; Jobs & Business; and Water Systems. Climate hazards considered include: Changed Seasonal Patterns: Heat Waves: Extreme Winter Conditions; Flash/Surface Flooding; Severe Wind; and Disease and Drought.

The Community Engagement ProcessEarly in the semester, students helped to prepare and deliver a Zoom

presentation to the approximately 40 community participants. The goal of this first workshop was to explain the climate vulnerability assessment and adaptation planning process; introduce the Oberlin community systems selected for consideration; present the scientific predictions of climate change and climate hazards for Oberlin; and begin to explore risks likely to affect particular community systems. Community participants and students were each assigned to one of the seven community system groups described above. Groups of students in the class were assigned to coordinate all activities associated with these community groups. In a second set of workshops, students facilitated discussions of risks and adaptive capacities related to each of the community groups. This was then followed by student-led interviews with each community participant. The net result was a wealth of input from community members.

As I write this article we are in the process of summarizing key insights that emerged from these community discussions and interviews. These will then be reported back to community participants in the form of a draft report and presentation. Community participants will be provided with an additional opportunity to provide feedback. The revised report will then be turned over to the city. A likely next step is that the city will create an adaptation task force comprised of city officials, community members, and perhaps students to continue the planning process.

The classes I teach often involve an intense level of community engagement. But this class definitely pushes the boundaries of my experience in terms of both the degree of engagement and the degree to which a course might evolve throughout a semester in response to what we are ALL learning through interactions with our community. The reality is that my city collaborators and I have been learning as much as our student collaborators about how to positively and proactively address the reality that climate change is here and now and already beginning to affect every community on this planet.

Sustainable and Resilient Environmental Management of Refugee Camps

By Rumi Shammin



Rumi Shammin has been working with international agencies on developing a framework for resilient and sustainable solutions

for refugee camp environmental management—in the context of the Rohingya refugee crisis in Bangladesh.

Since August 2017, about 1 million Rohingya refugees from Myanmar have taken shelter in the Cox's Bazaar district of Bangladesh—an area where he has been conducting climate adaptation research for a decade. This crisis offers a unique opportunity to study the integration of environmental sustainability and resilience concepts in the management of refugee camps. While general environmental guidelines exist in the United Nations Refugee Agency (UNHCR) toolkits, site-specific implementation protocols are missing. As a result, environmental considerations are not being meaningfully incorporated into the camp management process.

In 2018, Shammin initiated a research project to develop environmental management protocols

for refugee camps that would also generate other co-benefits such as physical and economic wellbeing, gender equality, and overall empowerment of the refugee population, and could serve as a template for other refugee camps around the world. In collaboration with the International Union for the Conservation of Nature (IUCN), he has produced phase I of camp environmental management protocol for UNHCR. He is also working on two other papers with Oberlin student research assistants that are in draft stage: one constituting four case studies and the other focusing on the interaction between environmental and gender issues in refugee camps. In addition, he has developed a novel research project on environmental oral histories of the Rohingyas and conducted a pilot study of this research method in January of 2020—in the wake of the COVID-19 pandemic.

After some delays due to lockdown and travel restrictions, he is spending the spring 2021 semester in Bangladesh conducting oral history interviews of the Rohingyas. He has recently received Oberlin College Grant-in-aid support for this study. Shammin is planning an edited book based on the various threads of his research on migration and refugees and will be teaching a course titled Migration, Refugees & Resilience in the spring of 2021.

Ideally, refugee status is supposed to be transitional. However, the reality is that at any point of time, millions of people will be living in refugee camps around the world waiting for a resolution of their status. Shammin hopes that his research will lead to actual reforms in UNHCR operations that can impact the lives of these people during their time in the camps.

EnviroAlumns Highlights

By Paul Safyan, Outgoing Chair, Oberlin EnviroAlums

SUMMER FELLOWSHIPS 2020

Four Summer Fellowships, with amounts totaling just over \$11,000 in expenditures from the 2019-20 budget, were awarded to three members of the Class of 2020 and one member of the Class of 2023. A summary of their projects can be seen at https://www.oberlin.edu/alumni-association/groups/enviro/students.

Due to the pandemic, Oberlin cancelled most of its sponsored, paid summer programs. Our Fellowship Subcommittee Co-Chair Kristin Braziunas contacted those who had been selected for EnviroAlums Summer Fellowships and asked them to re-design their proposals to accommodate remote work. All four candidates were successful in doing so and were able to proceed. We are proud that we were able to pivot nimbly in this way to meet the needs of these students. Despite budget constraints of our own, we plan to sponsor an equal or greater number of students at up to \$3,500 this year. Applications are now available.

ENVIRONMENTAL STUDIES CAREER DAY/ CAREERS IN THE ENVIRONMENT SERIES

In keeping with Oberlin's new calendar and its increase in interdisciplinary studies, ENVS Chair Karl Offen, Professor John Petersen, and our Environmental Studies Department working intern, Lauren Holmes, developed a new concept. Instead of a single career day event, we have been offering a series of hour-long career-oriented programs that focus on particular areas of interest. The first two comprised careers in journalism and communication, followed by a session on environmental justice. The next two include environmental law, and then land relationships and indigenous peoples' land rights. All of these sessions rely on a brief presentation with the majority of time devoted to Q&A. Environmental studies majors are the moderators for the sessions. We plan to continue a similar format next year, perhaps extending the sessions throughout the year.

CURRENT PROJECTS AND FUTURE CONSIDERATIONS

EnviroAlums Working Intern

Lauren Holmes (cited above) added continuity to this role, serving for the entire academic year and a portion of the last academic year. She was an excellent liaison between EnviroAlums and the Environmental Studies Department. She has begun working on a user guide for alumni to interact with students through Oberlin's Wisr community platform. As Lauren is graduating this spring, we will be hiring another

working intern to continue her work and to increase the interaction between students and our EnviroAlums.

Fundraising Planning

To increase funding for projects such as the Summer Fellowships program and for raising contributions that bring outside speakers to the Environmental Studies Department, discussions have begun with the Office of Alumni Relations to initiate a "crowd-sourced" fundraiser, under their direction. Over 1,700 alumni with interest in environmental sustainability have been identified. We hope to kick off this campaign in June and possibly include a "challenge" for donations during the April All In For Oberlin Day.

Welcome Graduates

We congratulate all graduating seniors for their persistence and courage, especially during these last years of your Oberlin career. We invite you to join our ranks upon graduation and to consider becoming part of our leadership Steering Committee when your future work or future schooling allows. Our members are eager to interact with you. Here is the link to our (free) membership application. https://oberlin.wufoo.com/forms/suieq017db01/

IDENTIFYING BARRIERS AND BENEFITS TO A FOOD WASTE COMPOSTING PROGRAM IN OBERLIN, OHIO

By Julia Halm

This study was a collaborative effort between the city of Oberlin and Oberlin College designed to identify barriers and benefits to establishing a municipal composting program. Establishing citywide composting will help Oberlin achieve its goal of carbon neutrality. We identified challenges and incentives to participating in the pilot program using food audits, stakeholder interviews, and emissions reduction models. Our initial partner organizations were IGA, The Feve, Thini Thai, and Oberlin Community Services. We found that our partner organizations face a variety of challenges, each requiring solutions before successfully participating in food waste composting. The study concludes with recommendations for the pilot program and expansion of citywide composting in Oberlin.

Love Letter From Student Reps

Programming this year kicked off with the annual picnic at John Petersen's pond. For many, it was the highlight of an otherwise complex return to campus. Along with many of our fellow off-campus students, we stayed connected through Zoom, engaged in research projects, and made the most of the unprecedented semester. We participated in the search process for a new visiting assistant professor for the summer semester and participated in the redesign of the ENVS program website. We organized a program sticker design competition, (thank you Abby Kantt for the winning design!). Finally, after what felt like an eternity, we were welcomed back to a snowy campus. For some of us, it was the first time we had been on campus since that fateful week in March 2020. We familiarized ourselves with the cadence of student life, celebrated an unprecedented streak of sunny days, and watched Oberlin become a vaccination distribution site. Through the support of EnviroAlums and their fantastic intern Lauren Holmes, we organized the Careers in the Environment series, which took place this spring and planned an ENVS senior celebration to top off an inperson graduation ceremony.

Last March we couldn't have anticipated the future that COVID-19 would bring. From loss to love to long hours on TikTok, we all worked to adjust and support one another. While we may have been distanced, we always had each other and this community. We are grateful for the home that environmental studies offers us and the love this community has for one another. Thank you for letting us be your student representatives, we look forward to continuing momentum through the summer semester!

—Phoebe von Conta, Lea Watkins-Chow, and Audrey Kamal

SPEAKERS & EVENTS

October 8-11, 2020: Professor Rumi Shammin, Climate Change and Community Resilience: Insights from South Asia. An international writeshop via Zoom with coeditors of his upcoming book of the same name.

October 13, 2020: Sustainability Roundtable, facilitated discussion with Meghan Riesterer, assistant vice president for campus energy and sustainability; Bridget Flynn, sustainability manager; and Joel Baetens, senior energy resource manager.

October 13, 2020: Guest speaker Cat Marshall, associate professor of landscape architecture, Kent State University, in Rumi Shammin's Sustainable Cities class.

October 20, 2020: **Guest speaker Terry Schwarz** in Rumi Shammin's Sustainable Cities class.

October 27, 2020: **Guest speaker Crystal Hart** in Rumi Shammin's Sustainable Cities class.

October 30, 2020: Will Tuttle, PhD, author of best-seller *The World Peace Diet*, delivers a talk about the hidden roots of social injustice. How food choices affect us.

November 5, 2020: **Beth Karlin,** Founder & CEO See Change Institute, guest speaker in John Petersen's class.

November 11, 2020: **Green affordable housing panel**. Alumni experts Krista Egger '04, Abe Kruger '04, Jack Popper '12 discuss how affordable housing gets financed and constructed, green building certification and related career opportunities in the private, nonprofit, and public sectors.

November 12, 2020: *Whale Snow*, five questions with book author and Oberlin Assistant Professor

of Environmental Studies Chie Sakakibara

November 17, 2020: "Eternity in the Desert: Heritage and the Future of More-than-Human Relations" by Kip Grosvenor Hutchins, LIAISE Postdoctoral Fellow Anthropology, East Asian Studies, Environmental Studies.

November 9, 2020: **ENVS Design Contest.** ES students submitted artistic ideas for stickers to display on backpacks, laptops, water bottles, etc. Abigail Kantt '22 won the sticker design contest.

February 24 & March 4, 2021: Mike Roman, University of Cincinnati professor and Island of Kiribati native guest speaker in Intro to Environmental Humanities and Global Indigeneous Health classes.

March 15, 2021: Careers in the Environment Series, Molly Samuel '04 and Marissa Ortega-Welsh discussion on their experiences within Environmental Journalism.

March 29, 2021: **Careers in the Environment Series**, Michael Lythcott '70 discussion on his career in Environmental Justice.

April 7, 2021: Careers in the Environment Series, speakers Will Rostov '88 and Adrienne Bloch '88 discuss their careers in environmental law and justice. Adrienne is managing attorney of the Fossil Fuels Program at Earthjustice. Will works on clean energy issues as a deputy city attorney on the energy and telecommunications team for the Office of the City Attorney of San Francisco.

April 14, 2021: Careers in the Environment Series, Gregory Kehm '88, Indigenous Rights and Titles. Gregory discusses his work within his independent consulting practice in Vancouver, British Columbia.

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