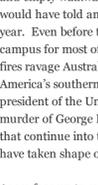
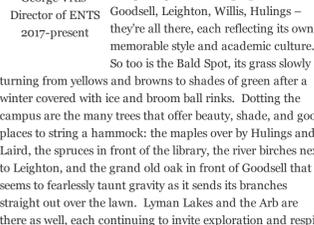


Annual Newsletter

2019-2020



Carleton



Letter from the Director

If you walked onto campus this spring, you would have found many familiar and perhaps comforting sights. George Vrtis, Director of ENTS 2017-present, Goodsell, Leighton, Willis, Hulings – they're all there, each reflecting its own memorable style and academic culture. So too is the Bald Spot, its grass slowly turning from yellows and browns to shades of green after a winter covered with ice and broom ball rinks. Dotting the campus are the many trees that offer beauty, shade, and good places to string a hammock: the maples over by Hulings and Laird, the spruces in front of the library, the river birches next to Leighton, and the grand old oak in front of Goodsell that seems to fearlessly taunt gravity as it sends its branches straight out over the lawn. Lyman Lakes and the Arb are there as well, each continuing to invite exploration and respect to all who wander their way.

But for all the usual sights you would have found, the stillness and empty walkways, picnic tables, classrooms, and offices would have told another story. This has been a tumultuous year. Even before the pandemic struck and closed the campus for most of us at the end of winter term, we had seen fires ravage Australia and the Amazon, a refugee crisis on America's southern border, and the impeachment of the president of the United States. And then came the tragic murder of George Floyd, and the protests and awakenings that continue into today. These are historic events, and they have taken shape one on top of the other all year.

As we face up to our times and the layers of history that lie within them, what might we draw on from our shared bonds as an environmental studies community to help us move forward?

One answer to that question is to recognize that environmental well-being and human well-being have always been tied to one another. There is great wonder about the natural world and a deep affection for both the wild and the tame among many people, but there is also an enduring predisposition to ignore the ways our thoughts and actions connect people and nature in thunderously consequential ways. Environmental studies asks us to think hard about the things we call nature and culture, and to try and understand the complex webs of mutual influence that connect them. This is the kind of thinking that can help us see and understand the links among climate change and poverty, pollution and the disproportionate share borne by people of color, deforestation and access to clean water, pernicious diseases and the unequal burden that falls to marginalized people around the world every day. And once we see and understand those links, the work of addressing them begins.

Environmental studies teaches these and many other lessons – ways of careful, expansive, interdisciplinary thinking that can help change the world. Wherever you are right now, know that the work continues, that the challenges are relentless, that your commitment to environmental and social well-being has never been more important, and that we anxiously await the day when we can welcome our students, alumni, and friends back to campus. Warm wishes for a healthy summer.

Off-Campus Studies Programs

Political Economy and Ecology in Southeast Asia

Last winter, Professor Tun Myint led a group of seventeen Carls around Southeast Asia for ten weeks on the Political Economy and Ecology of Southeast Asia OCS program. Participants spent time in Myanmar, Thailand, and Malaysia, as they investigated social, economic, political, and ecological developments in each area.

Students took courses on field research methods, social changes in Southeast Asia, and the diversity of socio-ecological systems in the region. Between coursework and field work, students were able to gain a deeper understanding of how economic and ecological developments have shaped the countries they visited. The program also included village homestays, a unique opportunity for students to meet local residents and further immerse themselves in the culture.

According to Jack Schill (ENTS '21), the program "was a crazy combination of learning experiences, physical activity, and living accommodations that always had us on our toes." He especially enjoyed the outdoor excursions the program offered, including a 2-day hike in the Alaungdaw Kathapa National Park in Myanmar and a visit to the Inle Lake cave system in Myanmar, which was full of mini Buddhas. He appreciated that "[w]e got to meet so many cool people and see so many cool places," concluding that "these things will be with me forever."

Geology in New Zealand

During winter term, Professors of Geology Clint Cowan and Cam Davidson led 24 Carls on the Geology in New Zealand OCS program. Participants spent five weeks on the North Island and five weeks on the South Island of New Zealand, using a variety of field techniques to investigate New Zealand's dynamic geological systems.

One of the main draws of the program was the opportunity to be outdoors every day. Students spent most days outside studying and mapping rock formations, surrounded by the beautiful, natural landscapes of New Zealand. The program allowed students to study all over the country from the volcanoes of Tongariro National Park to the urban geology of Christchurch. A highlight for geology major Nhan Le ('21) was taking a boat cruise through Milford Sound to explore its many waterfalls. In addition to taking courses on modern and ancient geological systems on each island, students could also take a basic field drawing class, which culminated in an independent field drawing assignment during midterm break.

Program participant Jacyn Schmidt (Geology '21) was grateful for the experiences she had on the trip: "This program reminded me again and again why I love geology. I learned so much about field methods, geologic phenomena, and how to solve problems in the field while getting to study outside every day in some of the most beautiful landscapes in the world." Jacyn also enjoyed learning how to play hacky sack, and she says the coolest thing she saw on the program (besides rocks) was a New Zealand giant land snail.

ENTS EVENTS

2019 UMACS Conference

This past September, Carleton hosted over 200 students, faculty, and staff for the biennial Upper Midwest Association for Campus Sustainability (UMACS) conference. The weekend-long conference was an opportunity for those engaged in sustainability efforts on their respective campuses to join forces and share ideas, projects, and initiatives.

The conference kicked off with a keynote speech by Karen Diver, the Director of Business Development for Native American Initiatives at the University of Arizona. Diver discussed her work as the chair of the Fond du Lac Band of Lake Superior Chippewa from 2007-2015, considering both her experiences as a Native woman and her professional work as a policy advisor focused on climate change. A dinner and networking session followed her talk.

The second day of the conference consisted of breakout sessions and panels in which students, faculty, and staff presented on topics including sustainable campus move-out programs, climate action planning, environmental justice, sustainability and mindfulness, and campus gardens. The day included tours of Carleton's wind turbine, industrial compost facility, sustainability office and facilities building, and Northfield's Food Shelf.

The record-setting attendance of 230 people at this year's conference demonstrates the value of cross-campus collaboration on sustainability efforts. The next UMACS conference will be held in 2021 at the University of Wisconsin -- Stevens Point.



2019 UMACS Conference participants gather for a group photo in the Weitz Commons.

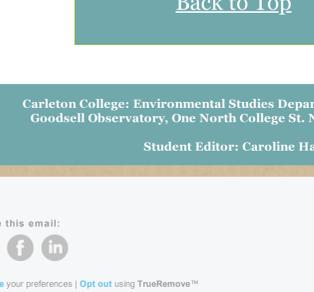
Spotlight on Climate Action Week 2020

This past February, the Sustainability Office hosted its annual Climate Action Week to highlight ongoing sustainability efforts on campus and engage the campus community in dialogue around climate change and sustainability. The office collaborated with student organizations to host events focused on the intersection of social justice and sustainability.

The week kicked off with a keynote speech by Elizabeth Hoover, a scholar of food sovereignty and environmental justice in Native communities, followed by a catered dinner and discussion. Other events included a panel on environmental justice led by ENTS professor Kim Smith, a climate justice-themed trivia night at the Cave, a film festival in Northfield, and a film screening/reception, featuring food recovered from the dining halls hosted by Carleton's Food Recovery Network chapter. Throughout the week, students, faculty, and staff also participated in the No Impact Challenge, collecting all their waste in a bag and weighing it at the end of the week.

Carleton's Theater department hosted a new Climate Action Week event this year, entitled "The Promise of Justice: A Walk with Others." The event centered on a twelve-hour, slow, mindful walk through Sayles Hill Campus Center with the intention of connecting one's body to the surrounding environment. Madeline Hagar (ENTS '20) commented, "It was incredible to watch the reactions people had in Sayles, from confusion and hesitation to intrigue and excitement."

The Sustainability Office plans to continue programming tailored to the community's interests and aimed at engaging and educating students about climate change and environmental justice.



Sustainability Assistant Becca Horwitz (Geology '22) helped run the annual No Impact Challenge.



Students were invited to participate in the Sustainability Office's interactive display about the future of climate action at Carleton.

Student Internships

Each year, the Environmental Studies department provides funding to majors interested in doing unpaid summer and winter break internships. This past year, five students received ENTS internship funding.

Nasra Mohamed ('20)

During winter break of 2019, Nasra worked in the African Ethnology Department at the American Museum of Natural History in New York City. Nasra completed an internship with the museum the previous summer through the Doris Duke Conservation Scholars Program and returned over winter break to gain new research experience. Throughout the internship, Nasra researched pharmacy distributions in Tanzanian cities and the impact of pesticides and other environmental factors on public health issues in Tanzania. She used GIS to map the location and distribution of pharmacies, learning about Tanzania's history and politics in the process. Nasra's favorite part of the internship was learning about how environmental issues merge with political and post-colonial issues abroad.

Jeremy Alsaker ('20)

Jeremy completed a summer internship as a conservation intern with the Santa Lucia Conservancy in Carmel, CA. Over the course of the 8-week internship, he completed research on land management, mapped and removed invasive plants, managed cattle, surveyed endangered species, and helped with bird banding. Jeremy enjoyed hiking and getting to know the area through his mapping of invasive species. The internships helped him learn about effective land management.

Jared Kannel ('20)

Over the summer, Jared worked for the Templer Biogeochemistry and Plant Ecology Lab at Boston University. His internship included working in both the lab and the field, taking soil samples, measuring soil respiration, performing KCl extractions of soil and resin samples, assembling NOx and O3 passive samples, and micro-plotting extracted samples. His favorite part of the job was working with other students, including three Ph.D. candidates, a masters program student, another college student, and a high schooler. Jared also enjoyed working in forests across Massachusetts and getting a better idea of what he wants to do after graduating.

Jared with his lab team taking field samples.

Nicola Lowry ('20)

Nicola spent the past summer interning with the New York City Parks and Recreation department. Her position as a Wetlands Team ArcGIS intern allowed her to practice her GIS skills as she worked on mapping the stormwater sewer systems in the city's parks and georeferencing stormwater construction drawings. Nicola's favorite part of the job was getting to know the city better by doing field verification at various parks around the city. She also enjoyed learning about all the possible career options in municipal government.

Heather Luedke ('20)

Last summer, Heather spent ten weeks working with the Environmental and Energy Study Institute in Washington D.C. as a Communications and Policy Intern. The internship was a good fit for Heather's career interest in environmental communications. She worked on tasks such as managing social media, interviewing heads of environmental organizations, making video shorts about the interviews, photographing events, and writing articles for a newsletter. One of Heather's favorite parts of the internship was writing an in-depth fact sheet about nature-based solutions to climate change that was sent to congressional offices.

Faculty Highlight:

Professor Tsegaye Nega

When Professor Tsegaye Nega was leading an OCS trip to Ethiopia in 2013, he observed that local communities were not using fuel-efficient cookstoves. He learned that fuel-efficient cookstoves were too expensive for many families to afford, and the stoves available were not able to cook traditional Ethiopian dishes like injera, the national dish.

Fast forward to 2020—many hours of research and trips to Ethiopia later—and Professor Nega has established HealthyFire, a social enterprise that provides urban households in Ethiopia with highly efficient gasifier stoves fueled by pellets made from biodegradable waste. The company's success can be partly attributed to its unique business model: HealthyFire sells cookstoves and pellets, buys back the charcoal generated by the stoves, and gives customers new pellet fuel equal in mass to the charcoal they return. Not only does the company mitigate negative health impacts from indoor air pollution associated with cooking, but it also sequesters significant amounts of carbon when the returned charcoal is converted into fertilizer, water, and air filters.

While working at Addis Ababa University as a Fulbright Scholar in 2017, Professor Nega also learned about the increasing availability of fast food in Ethiopia and its detrimental impacts on the nutrition of Ethiopians. In partnership with Professor of Chemistry Deborah Gross and Ethiopian engineer Seblua Abebe, Professor Nega discovered a way to upcycle the nutritive byproducts from the growing brews industry. He founded the company, SENQUE, which uses the byproducts from brewing beer to create SENQUE nutrition bars.

Professor Nega recently received the Bill & Melinda Gates Foundation, which he is using to finance experimentation with recipes and fully launch the company to market the products.

To learn more about Professor Nega's projects, visit the following links:
<https://healthy-fire-cc.com/> (HealthyFire project)
<https://senque.energy/> (SENQUE nutrition project)

Awards

The Environmental Studies Program is pleased to name Mariah Casmey '20 and Heather Luedke '20 the co-winners of the Casper Award. The Barry M. "Mike" Casper '20 Award was established in 2011 by the ENTS program to honor the memory of Mike Casper, professor of physics from 1966 to 2003 and long-time cornerstone of the environmental studies program at Carleton. This prize honors the graduating ENTS major who best personifies Professor Casper's commitment to both superior academic achievement and energy and leadership in support of understanding and protecting the environment.

This year's Adelaide H. Matteson Service Internship goes to Tuomas Sivula (ENTS '21). This honor is awarded to a junior or senior who has exhibited a high degree of academic achievement, motivation with respect to problem-solving, and desire to pursue an environmental career. Tuomas will use the award to work on the Carleton farm this summer.

We are also pleased to announce two important achievements among our faculty: Professor of Environmental Studies and History George Vrtis was promoted to full professor this year. Professor of Environmental Studies and Political Science Kim Smith received the Freudenberg Lifetime Achievement Award from the Association for Environmental Studies and Science, which seeks to honor those who have devoted their lives to mentoring the next generation of environmental scholars, fostering diversity and interdisciplinarity in the field, and outreach to critical decision makers and the public.

Making Lemonade:

ENTS responds to the COVID-19 pandemic

Normally the newsletter previews next year's courses and other anticipated events. Unfortunately, the future is still pretty uncertain at the moment. Instead, we'd like to share how ENTS faculty have been retooling their spring-term courses, drawing on their experience with innovative teaching methods. George Vrtis' Advanced Wilderness Studies seminar -- intended to be a follow-up to the (canceled) Spring term Grand Canyon OCS -- instead leveraged the relationships he's established and invited a series of remarkable visitors to the course, deepening and broadening their conversations. Virtual speakers from the Grand Canyon National Park included Jeanne Calhoun ('80), Chief of Science and Resource Management; Mike Lyndon, Tribal Program Manager; Jack Pongyeva, Grand Canyon Intertribal Centennial Conversation Program Manager; and several others. Students also had the chance to talk with Donald Worster, Professor Emeritus of American Environmental History, University of Kansas; and Shen Hou, Associate Professor of World Environmental History, Renmin University, Beijing, China.

Adapting on the fly, Trish Ferret's popular Abrupt Climate Change course had to make some changes to the civic engagement component of the course, shifting to a project involving more research and less engagement with community partners. But Professor Ferret also saw an opportunity for students to engage deeply with one of the world's experts on abrupt climate change, Richard Alley. They devoted much of the term reading his work, watching his videos, and digesting his synthesis of work in the field, in preparation for a virtual seminar with Alley toward the end of the term. Professor Ferret commented that "the chance to talk with Alley seems to be motivating and exciting to us all. And in these odd times, experts like this are not traveling to collaborate and give talks, but are rather sitting at home with more time to share."

Shifting a studio art course to an online environment is particularly challenging, but Dan Bruggeman's Art in the Anthropocene was already breaking new ground when he first taught it last spring. "Miraculously," he commented, "very little of the actual course material has changed from last spring's inaugural Drawing the Anthropocene course." Having lost supervised studio work time, he added essays and made more room for online discussion. "Issue-driven art like we create in this class, that seeks to confront apathy and raise awareness, necessarily needs to be exhibited in public places," Professor Bruggeman notes. Accordingly, he adjusted by safely creating work in the communities near the student's current residence and posting the work on different social media platforms, including Instagram. Check out their posts at @Anthropocene_drawing_2020. He added, "It will come as no surprise for me to tell you that our students have enthusiastically stepped up in what some might find a discouraging situation. I'm very proud of our student's efforts this term."

COMPS Projects 2020

For their comprehensive exercises, the Class of 2020 focused on various environmental, social, and economic topics. [Click here to read summaries of the Class of 2020 projects](#)
[Click here to read the full 2020 Comps projects.](#)

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Southeast Asia OCS Program 2020



Southeast Asia OCS Program 2020



Nhan Le ('21) climbing on rocks in New Zealand.



Geology in New Zealand participants hiking



Geology in New Zealand participants hiking



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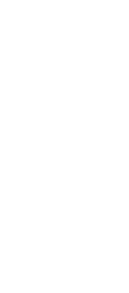
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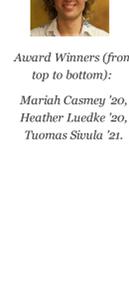
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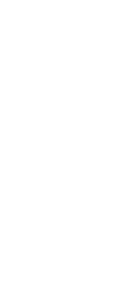
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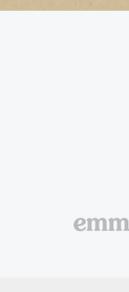
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