

DOWNSTREAM

from the Environmental Science & Policy Program at W&M



Keck Lab Solar Panel Installation Completed

PROJECT HONORS THE LEGACY OF ANNE DAVIS ('16)

After four years of effort, we are happy to report that the Keck Lab has finally been outfitted with solar panels! Two arrays of 28 total panels have been rack-mounted on two south-facing rooftop exposures. The panels will generate about 8,500

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kilowatt-hours of electricity each year (around 10% of the Keck Lab's use) and will reduce the campus carbon footprint by almost four tons annually. We expect the panel performance metrics (seasonal and daily variations in electrical output in relation to solar radiation, e.g.) will be utilized for student instruction in environment, sustainability, geology and chemistry courses on campus.

Seed funds and the impetus for the Keck Lab project (the first rooftop-mounted solar system at W&M) were provided by the parents of Anne Davis '16, a sociology and environmental major and tireless advocate for clean energy. Tragically, Anne was killed by a distracted driver in Idaho while biking across the USA and building homes for low-income residents. Donations in her name (over \$10,000) were then matched by a Green Fee fund; additional support came from a Tribefunding campaign in Fall 2018. Campus Facilities and the Committee on Sustainability continued work and additional project funding to finally reach project completion. Our hope is that Anne's legacy in the form of solar power will extend to other solar projects currently being considered at W&M!



Real-life "Stardew Valley"?

ENSP alumni Connor Horne & Christy Ottinger prove that sustainable agriculture is possible at Kitchen Girl Farm



When the beginning of the pandemic pushed many people to re-imagine their lives – in some cases moving away from cities, starting their own gardens, or finding other ways to re-connect with nature – Christy Ottinger and Connor Horne were just about to purchase their own piece of farmland in Baltimore County, MD. The duo, however, weren't novice farmers. In fact, they've been working in the sustainable agriculture space since they met at William & Mary in 2009, when they worked together in the Campus Gardens and on several local food initiatives. We spoke with Connor about his experiences at William & Mary, and the path that ultimately led Connor and Christy to found Kitchen Girl Farm.

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Could you briefly describe your background, and what made you choose W&M?

I grew up in James City County, just outside Williamsburg, so I'm a "townie". When it came time to choose a college, I certainly didn't intend to stay so close to home. I applied to several other colleges and universities in Virginia, but the "vibe" of the W&M campus spoke to me more than any other school I visited. Some combination of the natural beauty of the campus and the intimacy of a small student body convinced me that I would feel at home at William & Mary. I'm still so grateful that I was correct in this feeling. Being able to visit my loving grandparents right on the other side of Lake Matoaka was a plus, too!

What first interested you in farming? Did you have any influential experiences at W&M?

The Campus Garden: humble beginnings indeed! I was also part of a group of students who regularly volunteered at a nearby organic vegetable farm. I was interested in the way that a small farm like that one represented a way to take the concepts I had been learning in my ENSP classes and put them in practice. I was also inspired by a course entitled "Plants, People, and Agriculture". This class put modern food production in context. From this class and others, I took away not only awareness of the relationship between modern agriculture and environmental problems, but also an understanding of the multi-faceted challenge presented by the quest for "sustainable" agriculture.

What are some tasks that you might do on any given day at the farm?

While there isn't a "typical day" on the farm, there are rhythms to the work. Part of the fun of farming is learning to work with those cycles and rhythms, which include everything from seasonal fluctuations in day length and soil temperature to the weekly logistical schedule of harvesting and delivering our produce. Nevertheless, every day starts and ends with our animals. Our first task each day is to provide food, water, and comfort to our chickens and alpacas. Then I might move on to harvesting, washing, packing,

and delivering a vegetable order. Most of our produce is harvested-to-order for local restaurants and families, so we harvest several times each week. With whatever time is left in the day, I might take on any number of miscellaneous tasks, such as planting, cultivation, or other maintenance. Sometimes, we just spend all day harvesting cherry tomatoes! In the evening, it's back to chickens to ensure that all of those creature comforts are once again met. At either this or the morning visit we may move the mobile chicken coops to a new section of pasture. There's nothing more satisfying than watching the alpacas frolic and play in a new paddock.



Was there anything that surprised you about starting your own farm, or starting your own business in general?

The most gratifying surprise about starting a business has been the freedom to create the kind of workplace in which I want to work. There are harsh realities and inevitable challenges, but if I approach each of them with flexibility, creativity and empathy, then I (and those I work with) are rewarded with an invaluable prize: labor with dignity.

What advice would you give those looking to grow their own food on some scale?

The best way to learn to garden is to learn to eat. People should teach themselves to cook the crops they plant in a way they enjoy. Plan your garden around what you want to eat during the season, and enjoy eating your way through the cycle of the seasons. Then, learn to preserve the bounty so that you can enjoy it all winter! There are as many ways to grow food as there are growers, so don't get intimidated by the minutiae. Nourishing yourself, mind and body, is the most important goal.





"The best way to learn to garden is to learn to eat."

What are some changes that you've had to make during the pandemic? Do you think you'll keep some of those changes?

Despite expectations, 2020 was a hugely inspiring year for me and the other farmers in our community. The “pivot” we were able to pull off, moving from selling to restaurants to supplying individual homes,

was largely the result of the generosity of people external to the farm itself. Local residents stepped up in a big way [in 2020] to support local farms, and what looked like a bleak year turned into a great year for our business.



I read that you use alpacas to guard your bird population – where did that idea come from?

My brilliant wife Christy came up with that idea! Other farms use llamas as guardian animals, but we were intimidated by their size and occasionally-sour temperament. It turns out that alpacas work just fine. They're highly alert for possible predators, and the chickens respond to their cues. Plus, they are a never-ending source of entertainment for us as they roll around in the pasture and cool off in their little swimming pool.

A degree in ENSP can lead to many different careers. What advice would you give to a current ENSP students trying to find their passion?

One of my favorite aspects of W&M was the diversity of education available, both from classes and my fellow students. I would advise students to take advantage of that diversity; open yourself to ideas and experiences beyond where you expect to find them, and you may find your passion.

Want to visit Kitchen Girl Farm? Reach out [online](#)



All photos courtesy of Kitchen Girl Farm

Research News

Dorothy Ibes, senior lecturer for ENSP and director of the Parks & Ecotherapy Research Lab (PERL), published a research article in December 2021 on "Barriers to nature engagement for youth of color," along with collaborators Don Rakow and Chris Kim from Cornell University. Results revealed 14 distinct categories of barriers to nature engagement by youth of color, which were organized into three overarching categories: 1) external (accessibility, insufficient programming/facilities/staff, degraded environments, scheduling issues, weather, policies, health concerns), 2) psychological (fear, preferences, aversion to nature), and 3) socioeconomic (e.g., social exclusion, lack of resources, lack of exposure, competing priorities). Findings expose larger implications for a call to racial and ethnic diversity, equity, and inclusion within nature engagement. A complementary book chapter will be published in 2023, outlining "Best practices for welcoming diverse youth to parks, nature



sites, and greenspace," as part of a forthcoming book on "The Power of Parks." Ibes and her students in PERL are currently working on three new research projects investigating the 1) impact of formal ecotherapy coursework on nature connectedness, 2) productivity and mental health impacts of nature-rich study spaces, and 3) efficacy of remote forest therapy sessions. Visit parksresearchlab.com for more on PERL research, campus projects, and other resources, including audio files of Ibes talking with public radio, the W&M Ways to Flourish podcast, and the Sustainable Brain podcast about urban parks, greenspace, and ecotherapy.

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