

Knoll Food & Garden Educator 2022 Report

Overview

The 2022 season opened to waves of the shifting sands of COVID-19 variants which impacted planning, but the fall played out as a return to “normal” operations at the College. It feels remarkable to write this report in December; looking backwards, few would have anticipated how smoothly the summer and fall went given the pandemic.

The student organization formerly known as MCOG and MCOF has re-emerged post-Covid as **Knoll Friends** and is in process of re-establishing via Student Activities in Spring '23.



Interns and student garden volunteers are the beating heart of the Knoll. We are grateful for the over 180 students who came out to learn and work alongside us during Garden Volunteer Hours as we grow and nourish our community. Our **Spring/Fall Interns** were Olivia Kilborn '24, Claire Contreras '23, Ayusha Gautam '24, Paradise Phoenix '25, and Hannah Cecilia Forest Night Laga Abram '23. Former Summer interns Raechel Zeller and Andrés Oyaga helped co-design and facilitate the hiring process in January to select the 2022 cohort of spring/fall and summer interns. This process has become integral to the internship. Tashi Choden Sherpa '24, former spring/fall intern, returned as a Knoll Events Intern to help coordinate this fall's events.



Our **Summer Internship** crew was composed of Christine (CJ) Nabung '22.5, Xiaoyuan (Caroline) Jiao '24, Crystal Zhou '23.5 and Lauren Gemery '23. Our summer interns returned to a typical summer internship experience, which spanned 15 weeks from June 1-September 12. Interns lived at Weybridge House and worked 30-35 hour weeks based on the season's

needs. They were responsible for learning about and carrying forward all aspects of care for the garden, its inhabitants, and the site. The continuity of connection to place through the seasons as the garden transforms is a unique feature of this experience and is treasured by all. As a part of an EA cohort, Summer interns attended lectures on-campus by **Senator Kesha Ram Hinsdale, Professor Carolyn Finney, Judy Dow, and Scholar in Residence, Bill McKibben.**



hopemiddleburyvt
Liked by mackeyliz and 45 others
hopemiddleburyvt Thank you to our friends at Footprint Farm and to volunteers from Middlebury College! Today, we gleaned some beautiful greens that will be a welcome addition to HOPE's food shelf!
@footprintfarm
@middleburycollege

We were delighted to resume field trips to area farms that celebrated the expertise of local farmers, and when feasible, we helped to lend hands on projects. At **Bound Brook Farm** in Vergennes we sorted seedlings of a heritage rice cultivar with UVM Agroecology interns. We worked with Anna Freund at **HOPE** for scheduled, biweekly Friday gleans at **Footprint Farm** in Starksboro. We toured the flower fields at **Understory Farm** in Bridport and also helped transplant into their future Woody Perennial field. Megan and CJ participated in the **New Perennials** Summer Retreat at **Willowell** in Monkton, and Interns took 2nd-5th places in the Hand Mowing Competition at the **Addison County Farm and Field Days** in New Haven.



Beauty abounds at Understory Farm in Bridport; Community Work + Learn day at Soul Fire

Of special note, our crew participated in a Community Work + Learn day at **Soul Fire Farm**, which stands as a leader in the field of antiracist, afrofuturist farm and education center models. We volunteered by laying woodchip and paper mulch in their perennial beds, garbling herbs for tea blends, weeding perennial blueberries, and learning from these national treasures.

On campus, we connected with some of the amazing educators and staff on campus: **Marc Lapin** (Natural History and Deep Time at the Knoll/Regional Ag), **Peter Ryan** (VT Geology and Soils), **Lida Winfield** (Embodied Antiracism and Movement), **Monica Pryzperhart** (ES 112 Lab Prep), **Shelly Pottorf** (HARC prep), **Natalia Schwein** (meditation, herbalism), **Derisa Collymore** (AFC collaborations for Fall), **Karly Beavers** (HWE), **MiddView Interns**, **ISSS interns** (Orientation prep), **Special Collections Interns** (signage at the Knoll and Middlebury Chapel), **Saifa Hussain** and **Rabbi Yitz** (Scott Center collaborations) and **Tim Parsons** (tree tour!). We were delighted to bring back our **End of Summer Gratitude Pie Pizza Celebration** for Facilities + Dining staff and friends to help feed those who keep us fed the rest of the year. We also welcomed regular visits from Knoll staple caretakers, Jay Leshinsky and John Derick.

We were honored to spend an afternoon cleaning onions with **Katie Reuther '16.5** on one of her regular visits back to Middlebury, where she shared about her current Masters in Food Studies program at Chatham College, a recent internship with the Smithsonian Institute, and the successful addition of her portfolio of interviews ([Finding Roots: Asian American Farmers in Contemporary America](#)) to the Library of Congress's Occupational Folklife Project.

The in-person cohort of **Summer SSL Interns** attended 2-hour blocks of garden volunteer hours each Wednesday for eight weeks, which provided fun community work and learning, and many hands to take on bigger projects. We opened and closed the 8-week Summer SSL Internship with celebratory gatherings at the Knoll, including everyone learning to make their own pizzas.



SSL + Knoll + CACP Internship kickoff lunch; SSL interns harvesting and packing onions for the Nulhegan Band

Notably, two **Summer SSL x Knoll Interns** (SJ O'Connor '24 and Aria Bowden '23) focused their work on the Knoll and with College horticulturalist, Tim Parsons. Both were able to continue during Fall semester academic year. Knoll-focused projects included 20th Anniversary planning including harvesting, processing, packaging and creating a partnership with the Middlebury-based Stone Leaf Teahouse on a **Knoll x Stone Leaf custom tea blend** featuring flowers and herbs from the garden to be shared during the 20th. In collaboration with **New Perennials Publishing** and Professor Bill Vitek, Aria and SJ coordinated communications and an appeal for submissions for a **20th Anniversary Knoll Anthology** of writing, photography, and art. This physical publication is in process with over fifty submissions from across the twenty years, and will continue to be part of Aria's SSLxKnoll work and a **Winter Term ENVS 500 independent study** held for seven students, led by Megan Brakeley and Professor Vitek.

As a continuation of Professor Shelly Pottorf's spring **HARC 231: Architecture and the Environment** course's exploration of development at the Knoll, Aria documented site conditions and feasibility of universal design access. This was facilitated with Jodi Litchfield and Peter Ploegman of the Disability Resources Center. [Aria's observations are documented](#) here and were shared with Mike Moser, Jack Byrne, and the fall HARC 330: Intermediate Studio course.



Two site explorations considering wheelchair user accessibility occurred in Spring during Mud Season and in Summer

Garden volunteer hours continued on in their 20th season led by student interns, and were well attended. In the spring semester, 15 students (fall, 22 students) received **Physical Education credit** for attending at least four two-hour garden volunteering sessions. Students who attend four sessions tend to reflect on having a positive experience of deeper understanding of, and connection to the Knoll and by extension, Middlebury College and report deeper connection with

new friends. Garden volunteer hours were once again open to community members, and offered them during the academic year from April 1, through summer, to October 28, 2022.



Garden volunteers processing, sorting, planting, and prepping garlic for overwintering; flowers!

Spring 2021 Schedule from 3/28 - 5/26

Mondays: 12-2pm

Wednesdays: 11am - 1pm

Fridays: 2-4pm

Sundays: 9:30-11:30am** BIPOC affinity space

Fall 2022 Schedule from 9/12 - 10/28/22

Mondays: 10:15am – 12:15pm

Wednesdays: 10:15am – 12:15pm

Thursdays: 2-4pm** BIPOC affinity space

Fridays: 10:15am - 12:15pm and 1-3pm

In Fall, Knoll Friends and Interns hosted three Thank You Pizza gatherings on Friday after volunteer hours. We closed the growing season with a final **Thank You Pizza** and **First Annual Hot Sauce Competition** with approximately fifty Knoll Friends in attendance to comment, rank, reflect on an a great season, and celebrate the collective efforts and learning.



Poster art by Crystal Zhou '23.5; fifteen entries in the competition including one from Cornwall's 3rd grade class

Growing Season and Practices

In Spring, we saw winter conditions into early March with several inches of snow as late as April 19. Our first Garden Volunteer Hours day was spent pruning fruit trees with patchy snow still on the ground. By April 3rd the first pallid garlic leaves began poking through the straw mulch and by April 25th some 1300 onion plants were in the ground. The summer was warm and dry, with a return to more typical rains in late August. We again saw a “typical” first-frost date followed by a prolonged warm, dry period that extended into late November.

We continue to explore no-till or greatly reduced tillage schemes akin to those at Frith Farm. This typically involves the following patterns: fall or early spring planting of grasses and cover

crop mixes, close stage monitoring and termination via crimping, scything, or hand removal, tarping for 2-3 weeks, then transplanting directly into the dry mulched beds. We have steadily corroborated beneficial impacts with on-campus research (see “Courses” section).



Stages of early cover crop management: termination by scything, crimping, and hand; removing tarps after 3 weeks

Garden crops, sales, and partnerships

Major crops continued to be first and second quality Swiss chard, first and second quality kale, carrots, onions, garlic, shallots, winter squash, tomatoes, tomatillos, and beans. Secondary crops included lettuce, French, Korean and Japanese radish, sweet potatoes, scallions, kohlrabi, bok choy, green beans, brussels sprouts, cutting broccoli, peas, a variety of basil, asparagus, beets, other herbs including kkaennip/perilla, sage, thyme, bronze fennel, chives and Chinese chives and a large assortment of cutting flowers including zinnia, dahlia, sunflowers, strawflower, statice, cempasúchil/marigold, calendula, nigella, gomphrena, peony, poppy, and more. In all, we grew over 140 varieties of annual crops in addition to the perennials planted throughout. New varieties this year included two trial varieties of *gochu*-style Korean hot peppers from Second Generation Seeds and growing, harvesting, and stringing cempasúchil (marigolds) for use in Professor Olga Sanchez Saltveit’s Día de los muertos celebration.



Kkaennip appreciation embodied by Second Generation Seeds and Namu Farm; distributing Knoll-grown kkaennip and making jeon during the SGS Cook-Along

Notably, our bush drying bean crop failed this year. Prolonged heat and drought in the mid- to late summer prompted beans to flush flowers and fruit early, in order to sprint toward maturity and limit leaf growth. This was followed by an extended period of rain in early September, during which the plants flushed a new set of leaves and flowers, which prevented the partially-

matured seeds from sizing up and drying properly. We lost approximately 95% of our bush-type drying beans due to mold and rot; our pole-type Skunk beans were limited in production due to needing to re-plant them later in the season as the first germinated set was nibbled off at emergence. In many ways this feels like another instance of diffusely-related climate-change impacts, when reliable weather patterns change, and some of the low-maintenance “easy keepers” instead require close observation and modified care. Vining beans managed okay.

As in the past, we focused our efforts on the following commitments and community partnerships:

Midd Dining and Retail Operations: We sold our core group of crops (Swiss chard, kale, tomatoes, carrots, cut flowers, and herbs) to **Atwater, Proctor, and Bread Loaf Dining Halls, Midd Catering** and the **Retail Operations** group including the **Crossroads Café and the Tavern on the Tee** restaurant at the Ralph Myhre Golf Course. We made deliveries 2-3 times weekly throughout the harvest season, typically in volumes of 3-4 cases of greens at a time. We are deeply grateful for our many colleagues throughout Midd Dining, Catering, and Retail Operations who gracefully continue to work with us in spite of short-staffing, especially around intersectional opportunities like having 20 SSL and Knoll volunteers cut, cure, clean, arrange flowers, for **Bread Loaf School of English’s graduation celebration** in the Little Theater, or for the **Clifford Symposium event on Conflict Transformation** in partnership with Midd Catering. Staffing shortages on-campus model those nationwide.



Gorgeous bok choy, harvesters with a weekly load of kale, cases and cases of produce each week

Cut-Your-Own Flowers: synonymous with walking down to the Knoll was walking home with a handful of flowers. All invited to come and clip a handful of flowers in the annual and perennial flower beds, which are also cultivated as insectary areas for pollinator and beneficial insect food, habitat, and overwintering sites as part of micro-agroforestry schemes.

HOPE (Helping Overcome Poverty’s Effects, our local food shelf): As in past years, we met with HOPE in January to make a plan to grow specific crops to supplement gaps in their robust gleaning and produce distribution efforts. Given the growing space, curing needs, and storage potential of these crops, they are those rarely donated to the food shelf, and we are happy to help step up in this area. Our donations totaled over 3,000 pounds of produce (primarily winter squash (Butternut and Delicata), storage onions, garlic, and Brussels sprouts). HOPE distributed produce to 30+ sites in the county, including the Open Door Clinic, local childcare centers, and more.



A bin of cured butternut squash, harvest, and storage onions headed to HOPE's holiday meals program

Nulhegan Food Security Project: We were able to continue the fourth year of growing heirloom Abenaki and Indigenous beans in partnership with Chief Don Stevens of the Nulhegan Band of the Coosuk-Abenki Nation. We resumed the second year of the corn hand-pollination and seed saving aspect of our partnership. We were also able to share a harvest of some 1,000 pounds of produce, primarily winter onions, sweet potatoes, apples, carrots, and dry beans.

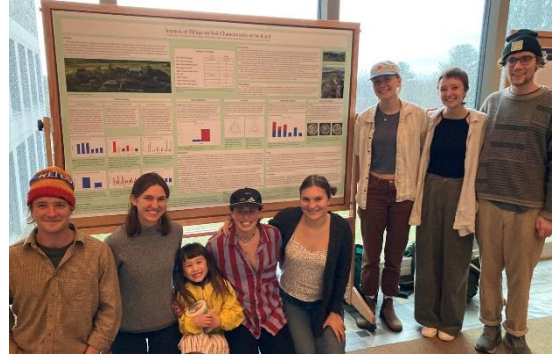
Coursework + Academic Connections

Professor Peter Ryan's Hydrogeology lab experiments in Spring '22 explored connections between well recharge, water table, and soil pit data. In part because of high course enrollment and shifting College insurance policies in Fall around the 15-passenger vans, combined with strong familiarity with the Knoll, we were delighted to continue supporting courses in the Environmental Studies department, among others. We welcomed **Professor Peter Ryan's Earth and Climate Science (formerly Geology) 357: Soils and the Environment** to dig soil pits on an elevation-based transect, and for exploration of a giant soil trench kindly dug by our facilities staff. This temporary pit served double duty as a learning opportunity for Cornwall Elementary's 3rd graders with Professor Marc Lapin—and a testament to the nuances of our site.



Eight other students in the course (Celeste Alden, Clark Devoto, Celia Hoffman, Mary Nagy-Benson, Kristen Pundyk, Elle Thompson, and Galen von Wodtke) chose to focus their research on the Knoll to examine **"Impacts of Tillage on Soil Characteristics of the Knoll."** This series of tests (Nutrient Testing, including Electrical Conductivity, Total Soil Organic Carbon, Total Bioavailable Nutrients; Water Infiltration; Soil Color; Visible Biota Analysis; and Bacterial Culturing) helps to build a body of research that is in conversation with and corroborates the multi-year data set comparing tilled and no-till style bed management gathered each fall in the introductory/core course, **ENVS 112: Natural Science and the Environment**. Special thanks to Tim Parsons for supporting the salinity measurements aspect of the field data collection.

This year the **four ENVS 112 lab sections** were led by Professors Marc Lapin and Monica Pryzperhart and we continued our fourth year gathering data comparing two carrot cultivars and two bed treatments (Regenerative and Standard). Special thanks to Monica for joining with Knoll and SSL interns to plant the carrots on a blazing hot July day.



The Knoll served as one site of study for **HARC 231: Architecture and the Environment** in Spring '22 with Professor Shelly Pottorf. Students Galen von Wodtke '22.5, Annalise Johnson '25, Laney Sullivan '22, and Jude Seo '24.5 exploring and [applying concepts from the Living Building Challenge at the Knoll](#).

In the fall, the entire 14-student **HARC 330: Intermediate Studio** course focused their efforts on designing a “Phase 1 Building” at the Knoll. Students researched the biogeophysical features of the Knoll and conducted “Genius loci” analysis, conducted stakeholder interviews with ~30 peers, faculty, staff, administrators, alumni, and community members and participated in iterative critiques which guided their designs.



Selected work, clockwise from top left: Lukka Wolff (blue background), Lila Olson, Laney Sullivan, Olivia Gomez



On October 6 members of the course, Shelly, and Megan were able to take a **Field trip to Ndakinna Education Center** in Greenfield Center, NY. We met with Joseph, Jim, and Jesse Bruchac, who presented about traditional longhouses and demonstrated building techniques.



Building on conversations beginning in January '22, Knoll interns welcomed the **School of Abenaki** to the garden. Over thirty participants joined for a half day to be present in and to come into practiced relationship with the space as active integration of the natural world into the curriculum and program of the School. Each member of the school transplanted clumps of Sweetgrass into the garden, originally a gift to the Knoll by community member Patty Herb. Later, another clump of sweetgrass was transplanted into the serenity garden area, honoring the partnership and intent to decolonize areas of campus and inviting right relationship.

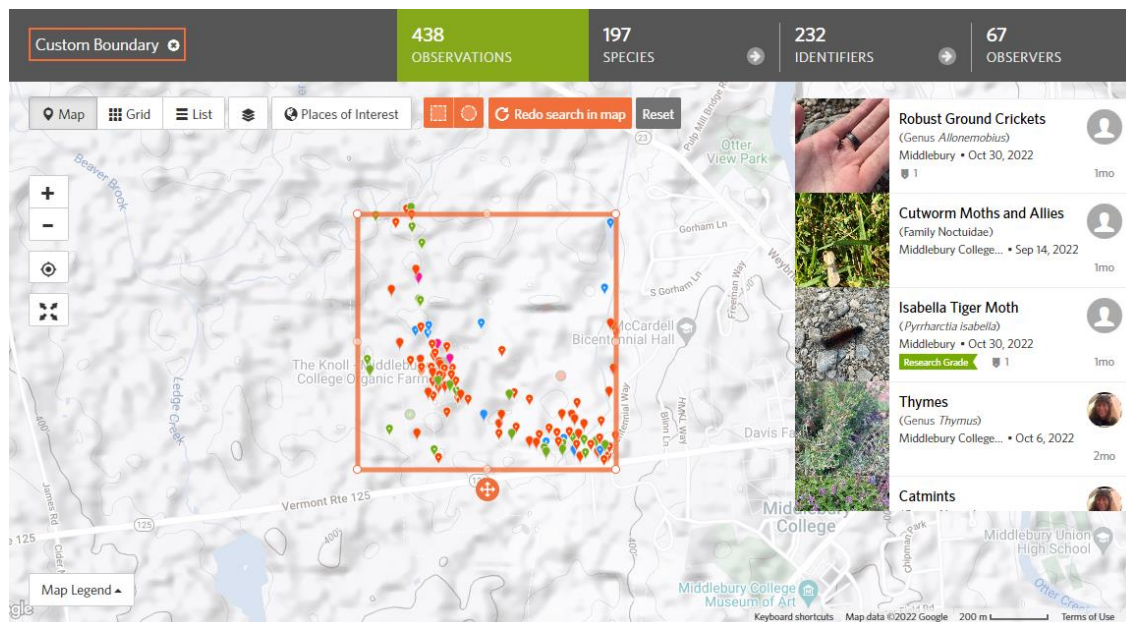
As the School transitions from “pilot” to annual status, we look forward to developing two projects proposed to the Fund for Strategic Initiatives: a signage “journey” describing the deeper natural historical context of the Knoll as it relates to the Champlain Valley and its original inhabitants and caretakers, as well as bringing the Western Abenaki language into place. The other is construction of a temporary longhouse structure for use as program and ceremonial space. While the time horizon for these projects is not final, momentum is building.



ENVS 500: Independent Study co-taught by Megan Brakeley and Professor Bill Vitek.

Seven students will be working on Winter Term independent studies as a cohort to advance Knoll Projects (including the Anthology, the 20th Anniversary campaign, community partnership development, and folding these program priorities into our seed order and planting plans). This is enabled by the promotion of the Food and Garden Educator position to a year-round role.

The Knoll continues to be a popular site for data collection about vertebrate, invertebrate, and insect life through **Dr. Greg Pask's work** studying fireflies and other insects and invertebrates. **Dr. Alexis Mychajliw's courses and research** (HEDGE - Holocene ecology, diversity, and global extinction) labs. Students set camera traps to gather data for independent research around human/wildlife interactions and observations.



Senior Jack Cornish '22 conducted his **senior thesis research** on human-wildlife conflict/coexistence using camera traps, transects and observations and helping to gather data about annual disturbance in our onion plantings in the early spring before the bare-rooted plants establish. While the data did not provide conclusive evidence, it revealed the presence of a robust array of species interactions, including owl, crow, and voles, and a winnowing down of possibilities. Could it be that earthworms are uprooting our onion plants?

Students in the Fall **BIOL 308: Mammology** course, including former Knoll and SSL intern David Goldsmith, continue to explore the Knoll as a site for data collection.



Data from camera traps reveal abundant nighttime visitors: owl, bobcat, and skunk

Dr. Molly Anderson's Introduction to Food Studies course ventured out to explore the site through an early assignment, and Megan joined the **Agroecology** course as a guest lecturer to describe the work of the Knoll related to agroecological principles. This built on conversations and work by notable Agroecology and Knoll course alumni, particularly Andrés Oyaga '23 and Claire Contreras '23.



Attendance at the day-long **Farm to Plate Annual Gathering** at Killington Resort (with generous support from the Climate Action Capacity Program) brought 6 students (Andrés Oyaga, organizer; Cassia Park, Olivia Kilborn, Jess Buxbaum, Tashi Sherpa, and recent alum Jaden Hill) into state-wide network conversations. Topics included Workforce Development and Education, Mobilizing Funding, Migrant Farmworker Initiatives, Support for New/Beginning Farmers, Lessons from

Puerto Rico, and Food Security/Farm Viability/and Addressing Root Causes of Hunger. Many wonderful conversations with Salvation Farms, the VT Releaf Collective, UVM's Center for Agroecology and the Catamount Farm, St. Michael's student farm, Hunger-Free VT, ACORN, and NOFA-VT ensued.

Cornwall Elementary's 3rd Grade returned to the Knoll after a COVID-based hiatus. Mindy Harvey '13 brought her class to spend the day at the Knoll five Wednesdays; summer interns and fall interns were able to welcome them. Garden activities included sowing a mustard cover crop and observing it over 5 weeks, digging carrots for the Nulhegan band, harvesting beans and putting beds to bed, weeding, and mindfulness activities.



Events at the Knoll

The Knoll hosted 37 official College events with partners from many other departments (please see appendix at the end of this report). We are extremely grateful for the work of the Events Management team, Knoll Events Intern Tashi Sherpa '24, and all of the Knoll interns and volunteers who stepped up to make possible many of the special events that help to shape a Middlebury student experience. Spring semester '22 still saw restrictions around indoor gathering, food, and off-campus partners coming onto campus, but the fall saw a return to pre-COVID expectations. Due to limited staffing capacity, uncertainty about the fall, and enormous backlogged demand, we limited the Knoll's use to only on-campus partners.

Of particular note regarding events this year, we highlight the following:

Reunion returned in full-force this summer, to the delight of many, and included two, and sometimes three sets of events, welcoming back the classes of 1970, '71, and '21 to make up for the years missed during the COVID pandemic. The Knoll hosted special events and tours for two



fiftieth reunion classes, as well as a general Open House complete with fresh produce and treats baked in the oven. Crystal Zhou designed, orchestrated, and hand-screened a limited edition run of custom Knoll apparel. Special shout-out to Crystal for this, and other batches of beauty!



We were delighted to work with the **Kathryn Wasserman Davis Collaborative in Conflict Transformation** to host an evening dinner during the Clifford Symposium. This year's theme was "Conflict Transformation." Some fifty invited faculty, students, and staff attended and celebrated flowers grown and arranged by students at the garden.



Orientation also saw a return to primarily in-person programming, though off-campus trips did not take place this year. Interns welcomed twenty first-year students for an introduction to the Knoll and offered a welcome environment to get involved in the garden. The Knoll was represented at student fairs, orientation welcome sessions for parents/families and first-years, and for early arrival programs for Transfer and International Students, as well as student-and parent-facing events for First@Midd.

First@Midd celebrated the close of its early arrival program at the Knoll with a perfect weather evening and over 160 students enjoying American Flatbread served from the pizza oven, roasting marshmallows, harvesting and nibbling taste tests, picking flowers, and generally getting acquainted with the open green space of campus in the most excellent of company.

Fall Family Weekend welcomed thousands of visitors to Middlebury, and several hundred visitors made their way to the Knoll for an Open House with garden snacks, an invitation to participate in Garden Volunteer Hours, and for tours of the garden.

The Dean's Office and the Committee on Diversity, Equity, and Inclusion supported a make-your-own pizza evening event for faculty and staff who identify as **Women of Color** during the second week of classes. It was a joy to celebrate each other's informal company and build community together. Special thanks to Professor Dima Ayoub for coordinating, shopping, and pulling this together.

In the spring, we were glad to welcome a **panel conversation on Shmita** with Rabbi Daniel Stillman, Remi Welbel '23, and Grace Oedel, the director of the Northeast Organic Farming Association-Vermont Chapter, moderated by Professor Rebecca Gould. They shared about Shmita sabbatical practices and learning agriculturally and spiritually, followed by flatbread

served from the oven. Thanks to Environmental Affairs, the Scott Center, the Climate Action Capacity Project, and New Perennials for generous support of the event.

As a fall closing event following the first frost at the Knoll (but not yet in the valley), Knoll Friends hosted a **Flower Mandala-Making** with student life dean Emily Van Mistri. This beautiful process of celebration, creation, and reflection on beauty and impermanence helped mark the closing of the 2022 season with intention. Special thanks to Dean Van Mistri for her guidance and remarkable generosity in welcoming the group to her home and home gardens to harvest flowers for use during the workshop, and for guiding the activity.

The Knoll was invited to a **panel conversation on Food Justice** as part of **ACORN's** (the Addison County Relocalization Network) **annual meeting** held at Minifactory in Bristol in November. Knoll interns Claire Contreras '23 and Isabela Bahadorzadeh '23 spoke as representatives of the Knoll. Claire also serves on the ACORN board of directors and has helped to link our work together.

Recommendations and Recognitions

Our mission is to explore food as a medium to cultivate well-being in people, place, and the planet. In doing so, our work begins with understanding and dismantling oppression, with particular attention to the racism, land theft, cultural erasure, and colonial supremacy that built our food system and remain at the fore. As the Knoll, we commit to creating access for people who have been barred access from the freedom to choose whether, and how, to engage with agriculture and the land. We aim to broaden understanding of the political, historical, and cultural frameworks and hegemonies, including white supremacy, that have built our predominant narratives and understandings of the food system, particularly in New England, and in our landscape.

If these are some of our aspirational goals; then we must continue to address limitations of the site and our programs (e.g., the Knoll is not an ADA accessible site and is only beginning formal conversations around what appropriate land acknowledgment entails, and how it is framed). We have timely and deep work to do, and the ability to prioritize and center this is full of possibility.

- The Knoll is maximally adapting to the specific constraints of our site (e.g., no electricity or permanent plumbing, no maintenance of the site in winter, no indoor event planning space) but in order to achieve College goals around accessibility and inclusivity, we would greatly benefit from a master planning process, particularly to address immediate safety and accessibility issues.
 - In the short term this entails creating a safe pathway access and road crossing via a route that conforms with Universal Design standards, complete with appropriate lighting.
 - In the longer term this process could evince the need for a permanent structure that addresses suitable restroom facilities, food wash, pack, and storage requirements, and educational programming space.

- We are grateful to our colleagues in Facilities Services, with whom we have begun preliminary conversations about constructing a ramp to access the Outdoor Classroom and other site accessibility needs. It comes as an enormous relief for them to provide financial and contracted support for essential physical amenities and physical building maintenance, including rental of the wheelchair accessible portable toilet and handwashing station. We are also grateful for Mike Moser and Peter Lackey for their time and designations for staining, window replacement, and basic repairs of the Garden Shed, Outdoor Classroom, and Pizza Oven structure to alleviate these maintenance needs from the Food and Garden Educator. (Up until this fall, this monthly rental fee and any other contracted services were drawn from our already limited program budget.)
- It has been a joy to work with the students in this year's two Architecture courses to envision and begin to bring to light what a "phase one building" would look like at the Knoll, and what roles it would serve. Further development of these ideas, in collaboration with other community organizations thinking about physical development of spaces and focused on food production, access, distribution, education, and community provide an exciting opportunity. The particular expertise embodied in Professor Shelly Pottorf is remarkable, given her experience with the Living Building Challenge frameworks and design-build overall. Shelly brings forth awareness of cutting-edge technologies in building materials, including the potential for those we could grow on College-held lands (straw-, hemp- and other fiber-based compounds) in addition to forest products, and through her current professional practice as the principal architect for two buildings at Soul Fire Farm. We are eager to build on the excellent research and proposed designs. Megan has begun preliminary conversations with ACORN, the Giving Fridge, HOPE, Addison Allies, and the Otter Creek Children's Center along these lines.
- At the time of writing, the body of work described in this report was overseen by one part time (0.575 FTE) position, in the role of the Food and Garden Educator. This was not a sustainable practice, but it is with great pleasure that we share that the role has now been made into a full-time position as Associate Director of the Knoll beginning January 1, 2023. We look forward to the opportunity to deepen mission-driven, partnership-guided work centering BIPOC voices and initiatives, to bring more signage to the Knoll, to celebrate and uplift student-centered initiatives (e.g., planning and growing for student groups like Crossroads, Dolci, Weybridge House, and cultural organizations), to commemorate and celebrate the Knoll's 20th Anniversary which will include fundraising opportunities, and to revisit opportunities to revive and transform Food Works summer internships as we continue to increase opportunities for equitable involvement, including specific affinity spaces and programming as a primary program focus for the future, and advocacy for deeper and sustained action on behalf of our collective Middlebury to uplift and draw critical knowledge holders, particularly BIPOC, into decision-making about land, partnership, and knowledge sharing.

Gratitude

To the land, this place, and its forebears for sharing its abundance with us. To the stories we hold, tell, and in telling truthfully, can even be released from. May our work lift up the love and sacrifices of those who came before to help care for the ones who come next.

To the students who bring their lives, and life, into the garden so that we all might learn with, from, in, about, around, through, and betwixt the rows, the plant and animal life, and each other.

Thanks to the entire Franklin Environmental Center at Hillcrest team to support the efforts at the Knoll, including the Climate Action Capacity Project and the New Perennials Project. Gratitude to Molly Anderson and the Food Studies Program for our shared work and the opportunities to come. Gratitude to the Provost's office for support of the Knoll staffing

Thank you to all of our colleagues at Middlebury College as we continue to weather these years together. For support with the Knoll's day-to-day operations, we wish to thank our colleagues in Facilities, Dining Services, Midd Catering, Communications, Events Management, Student Activities and Orientation, the Anderson Freeman Center, The Scott Center, the Office of Institutional Diversity, Equity, and Inclusion, the Center for Community Engagement, Public Safety, and the Midd Recycling Facility.

To long-time garden friends Jay Leshinsky and John Derick for their continued guidance and counsel.

To our dedicated Addison County community, we are eager to fully welcome groups back this coming year, in the spirit of restoration of the vibrancy and richness of interaction, friendship, and collaboration.

And of course, to the students who dreamed up and continue to collectively dream and craft what the Knoll is: for each other, for all of us.

Prepared by Megan Brakeley '06, Associate Director of the Knoll | December 2022

Franklin Environmental Center at Hillcrest | Middlebury College | Middlebury, VT | www.go.middlebury.edu/knoll


Appendix 1. Following is a list of all of the official class collaborations and events hosted in partnership with others on campus.


Date	Time	Event
Monday, March 28, 2022	1:30 – 4:00pm	Pete Ryan Hydrogeology class
Wednesday, April 20, 2022	7-8:30pm	Oratory Now Sunset Walk & Story Circle campfire
Friday, April 22, 2022	4-7pm	SLUT Month campfire- Distinguished Men of Color, Black Student Union, Women of Color
Monday, April 25, 2022	3:00 – 5:00pm	Will Hoppin - Set Construction
Friday, April 29, 2022	5:00-8:00pm	[Pizza Oven?] Midd First Responders
Thursday, May 5, 2022	7:00- 10:00pm	Chinese Department Campfire and Sunset
Friday, May 6, 2022	5:00-8:00pm	SNEG Pizza at the Knoll + campfire
Saturday, May 7, 2022	1:45- 7:15pm	Muslim Students Assoc. event- Firekit Provided
Sunday, May 8, 2022	4:00 – 8:30pm	Shmita Event: Grace Oedel (NOFA-VT), Prof. Gould, Pizza oven
Monday, May 9, 2022	5:30 – 8:30pm	Model UN Farewell Picnic
Tuesday, May 10, 2022	1:30 – 2:45pm	Tracy Weston - Ed Studies Sr Seminar
Thursday, May 12, 2022	1:30 – 2:45pm	Tracy Weston - Ed Studies Sr Seminar
Thursday, May 12, 2022	5:00 – 8:00pm	Jeff Munroe - FYSE 1306 Pizza + Campfire kit
Friday, May 13, 2022	4:00 – 8:00pm	Knoll Friends Spring Final Thank you Pizza
Saturday, May 14, 2022	5:00 – 8:00pm	Energy 2028 EcoBreak Event
Monday, June 6, 2022	1:00 – 2:15pm	50th Reunion Knoll Tour w guide
Thursday, June 9, 2022	11:00am 12:15pm	50th Reunion ('72) Knoll Tour
Saturday, June 11, 2022	1:00 – 4:00pm	Knoll Reunion Open House
Friday, June 17, 2022	12:00 – 2:00pm	Environmental Affairs Intern Cohort Pizza Lunch
Wednesday, June 22, 2022	10:00am - noon	Sustainability Solutions Lab Open Volunteer Hours
Friday, July 1	8:15am – 1:00pm	Footprint Farm glean w/ HOPE
Saturday, Jul 9, 2022	9:00am – noon	School of Abenaki – Sweetgrass planting and Gardening
Wednesday, Jul 13, 2022	10:00am - noon	SSL Open Volunteer Hours
Friday, Jul 15, 2022	8:00am – 1:00pm	Footprint Farm w/ HOPE
Tuesday, Jul 19, 2022	2:00 – 3:30pm	EA Cohort Speaker Series
Wednesday, Jul 20, 2022	9:30 – 11:30am	Monica Pryzperhart – ES 112 Lab Carrot Planting
Wednesday, Jul 20, 2022	10:00am - noon	SSL Open Volunteer Hours
Thursday, Jul 21, 2022	11:00am – 12:00pm	MALT camp programming [last minute cancellation due to lightning]
Wednesday, July 27, 2022	10:00am - noon	SSL Open Volunteer Hours
Friday, July 29, 2022	8:15am – 1:00pm	Footprint Farm glean w/ HOPE
Tuesday, August 2, 2022	2:00 – 3:30pm	EA Cohort Speaker Series
Wednesday, August 3, 2022	10:00am - noon	SSL Open Volunteer Hours
Wednesday, August 10, 2022	10:00am - noon	SSL Open Volunteer Hours
Thursday, August 11, 2022	9:00am – 2:00pm	Field Days - Hand Mowing Competition
Friday, August 12, 2022	9:00am – 12:00pm	SSL, Knoll, CACP Summer Intern Final Presentations
Friday, August 19, 2022	8:15am – 1:00pm	Footprint Farm glean w/ HOPE
Monday, August 22, 2022	9:00 – 10:00am	Church walking group – Congregational Church tour

Monday, August 22	1:30 – 4:30pm	Understory Farm field trip + volunteer
Tuesday, August 23, 2022	7:30am – 6:00pm	Soul Fire Farm field trip – Community Work & Learn Day
Wednesday, August 24, 2022	1:30 – 3:30pm	Football Team community service volunteer session
Friday, August 26, 2022	5:30 – 7:30pm	[PIZZA OVEN] PAL training for ISSS Pre-Orientation
Monday, August 29, 2022	12:00- 2:00pm	Knoll Friends Pizza Party
Wednesday, August 30, 2022	4:00 – 5:00pm	First@Midd Parents' Resource Fair @Axinn
Thursday, September 1, 2022	4:30 – 7:30pm	[PIZZA + FIRE] First@Midd Knoll Event!!!
Friday, September 2, 2022	10:00am-12:00pm	First@Midd Resource Fair @Axinn
Friday, September 2	6:00 – 7:30pm	Residential Life Student Staff campfire
Sunday, September 4, 2022	4:00 – 6:30pm	ISSS - End of PALS program Photos + Gather
Monday, September 5, 2022	3:00 – 5:00pm	MiddView Family Resource Fair
Tuesday, September 6, 2022	8:30 – 10:00am	Mike Sheridan FYSE first class - Reserve Outdoor Classroom
Wednesday, September 7, 2022	8:30am – 1:30pm	Cornwall 3rd and 4th Graders weekly Weds visit
Wednesday, September 7, 2022	2:00- 5:00pm	FECH Open House
Friday, September 9, 2022	1:00- 4:00pm	MiddView Mini Trip @Knoll
Tuesday, September 13, 2022	1:30-4:15pm	HARC 330: Intermediate Studio
Tuesday, September 13, 2022	3:00- 4:00pm	Molly Anderson - Agroecology class visit
Wednesday, September 14, 2022	8:30am – 1:30pm	Cornwall 3rd/4th Grade Visit
Thursday, September 15, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Friday, September 16, 2022	9:00 – 11:00am	Harvest flowers for AFC Bridgerton event
Saturday, September 17, 2022	10:00am – 1:00pm	[Bring Flowers/Facilitate activity] AFC Bridgerton-themed BIPOC Women's Brunch
Tuesday, September 20, 2022	1:30 – 4:15pm	Intermediate Studio
Wednesday, September 21, 2022	8:30am – 1:30pm	Cornwall 3rd/4th Grade Visit
Wednesday, September 21, 2022	1:30 – 4:15pm	Pete Ryan GEOL Lab
Thursday, September 22, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Friday, September 23, 2022	5:00 – 7:15pm	[Pizza] Clifford Symposium: Dinner/Performance [invite only]
Tuesday, September 27, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Wednesday, September 28, 2022	8:30am – 1:30pm	Cornwall 3rd/4th Grade
Thursday, September 29, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Friday, September 30, 2022	2:30 – 4:30pm	Knoll x Interfaith House
Saturday, October 1, 2022	1:00 – 3:00pm	Center for Community Engagement – Liza- Event
Sunday, October 2, 2022	10:00am – 2:00pm	[PIZZA] -CAT pizza and flower arrangement event
Sunday, October 2, 2022	4:00 – 6:30pm	[Event Setup Support]- Private Event OIDEI
Tuesday, October 4, 2022	10:30 – 11:30am	Matt + Walden Project Visit/Tour of Knoll
Tuesday, October 4, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Wednesday, October 5, 2022	1:30 – 4:15pm	Pete Ryan GEOL Lab
Tuesday, October 11, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Tuesday, October 11, 2022	4:00 – 6:15pm	[Campfire/Gate] Anderson Freeman Center - National Coming Out Day Campfire

Wednesday, October 12, 2022	8:30am – 1:30pm	Cornwall 3rd/4th Grade
Tuesday, October 18, 2022	1:30 – 4:15pm	ES 112 Carrot Experiment – Lab section
Tuesday, October 18, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Wednesday, October 19, 2022	1:30 – 4:15pm	ES 112 Carrot Experiment – Lab section
Thursday, October 20, 2022	1:30 – 4:15pm	ES 112 Carrot Experiment – Lab section
Thursday, October 20, 2022	1:30 – 4:15pm	HARC 330: Intermediate Studio
Friday, October 21, 2022	11:45am – 2:30pm	ES 112 Carrot Experiment – Lab section
Friday, October 21, 2022	4:00 – 6:00pm	Theatre/Dance Department campfire fall gathering
Wednesday, October 26, 2022	4:15 – 7:15pm	[Gate/Fire-Kit] - Privilege and Poverty dinner
Friday, October 28, 2022	3:00 – 5:00pm	Final Knoll Thank You Garden Volunteers Pizza Event

Appendix 2: Weather Records for 2022 (Retrieved from <https://observatory.middlebury.edu/weather/records/> on December 15, 2022)


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Middlebury VT Weather Records
Observed at Mittelman Observatory | 44° 1' N · 73° 11' W

24.8 °F

Temperature Records				
	2022		All Time	
Highest Temperature	93.8 °F	August 6, 2022 2:41 PM	July 1, 2018 2:00 PM	97.8 °F
Lowest Temperature	-12.4 °F	January 22, 2022 7:35 AM	January 22, 2022 7:35 AM	-12.4 °F
Highest Heat Index	103.1 °F	August 8, 2022 12:29 PM	July 1, 2018 1:49 PM	110.9 °F
Lowest Wind Chill	-32.2 °F	January 15, 2022 3:25 AM	January 15, 2022 3:25 AM	-32.2 °F
Largest Daily Temperature Range	41.9 °F	February 23, 2022 (Min: 14.3 °F - Max: 56.2 °F)	February 23, 2022 (Min: 14.3 °F - Max: 56.2 °F)	41.9 °F
Smallest Daily Temperature Range	2.9 °F	May 3, 2022 (Min: 51.2 °F - Max: 54.1 °F)	November 20, 2019 (Min: 31.3 °F - Max: 33.7 °F)	2.4 °F
Wind Records				
	2022		All Time	
Strongest Wind Gust	48 mph	February 23, 2022 2:17 PM	July 30, 2019 4:32 PM	54 mph
Rain Records				
	2022		All Time	
Highest Daily Rainfall	1.74 in	September 12, 2022	September 12, 2022	1.74 in
Highest Daily Rain Rate	28.80 in/hr	May 16, 2022 1:58 PM	May 16, 2022 1:58 PM	28.80 in/hr
Month with Highest Total Rainfall	3.98 in	September	October, 2019	5.88 in
Total Rainfall for	2022	23.88 in	2019	35.38 in
Consecutive Days With Rain	4 days	ending September 27, 2022	9 days	October 24 - November 2, 2018
Consecutive Days Without Rain	10 days	ending November 4, 2022	16 days	August 18 - September 3, 2021
Humidity Records				
	2022		All Time	
Highest Humidity	98%	August 26, 2022 10:01 AM	June 29, 2018 1:01 AM	98%
Lowest Humidity	18%	June 4, 2022 3:12 PM	June 8, 2019 2:07 PM	15%
Highest Dewpoint	75.8 °F	August 8, 2022 4:19 PM	July 20, 2019 5:50 PM	78.2 °F
Lowest Dewpoint	-16.8 °F	January 22, 2022 7:35 AM	January 22, 2022 7:35 AM	-16.8 °F
Barometer Records				
	2022		All Time	
Highest Barometer	30.709 inHg	February 15, 2022 11:27 PM	January 9, 2020 1:14 PM	30.768 inHg
Lowest Barometer	28.985 inHg	January 17, 2022 1:40 PM	February 7, 2020 1:51 PM	28.877 inHg
Sun Records				
	2022		All Time	
Highest Solar Radiation	1332 W/m²	June 28, 2022 1:26 PM	June 14, 2020 12:35 PM	1387 W/m²
Highest UV	8.5	June 27, 2022 11:24 AM	July 11, 2020 11:47 AM	10.4