

Project #1: Creative Engagement with Pollinator Habitat

Community Partner: [Jennifer McCandless](#), Sculptor, in collaboration with [BETA Technologies](#)

Additional Resource Contacts:

[Pollinator Pathway](#)

[Horsford Native Plant Nursery](#)

What if sustainable technologies made space for the arts? What if artists brought their gifts to habitat restoration? What if innovative new businesses were dedicated not only to financial success, but also to deepening human-nature engagement along the way?

Background

The November 2022 [Vermont State of Bees Report](#) provides one of the most comprehensive assessments to date of both the conservation status and current threats to Vermont's wild bee populations. The report—produced through a collaboration with the Vermont Center for Ecostudies, the Vermont Department of Fish and Wildlife, and a multitude of citizen scientists—highlights that out of Vermont's 350 bee species, 55 are imperiled due to restrictions in habitat and other threats causing population decline. The study authors provide compelling reasons for why we should address these issues, stating, "Wild bees play a pivotal role in pollinating both wild and crop plants, a critical ecosystem service [that] many people take for granted." The report goes on to note that while "the important role that pollinators, particularly bees, play in Vermont's ecology and economy has become better recognized by the public in recent years" there is much more urgent work to be done to ensure that these species remain healthy and viable.

Your partners for this project are among a range of actors seeking to lend their creativity, energy, and talents not only to create or restore pollinator habitat, but also, to connect a broader public directly and tangibly with this work. Jennifer McCandless is a sculpture artist with a long history of using humor and satirical narrative as a means of social critique. More recently, she has been engaged in making artwork that is simultaneously aesthetically compelling, functional and ecologically restorative, including crafting clay sculptures that can also serve as bee habitat. Jennifer is currently entering into a collaboration with the electric aviation startup, BETA Technologies, to develop team building models for environmental organizations that will include clay-making workshops for creating pieces that double as pollinator habitat. These works of art will then be installed in newly created pollinator gardens.

Jennifer seeks to promote deeper learning and engagement on a range of urgent environmental issues. She notes the many benefits of her immersive approach: "Creating in clay with one's hands can be personally grounding, bring one into the present, a bonding experience with other participants, a sharing of imagination and gift of care towards the pollinators. They [the sculptures] can be a sense of pride while [making them can also be] a humbling experience which often becomes humorous, an acceptance of imperfection and exploration as a means toward understanding of oneself and a letting go of expectations. The [goal is] to create relationality and appreciation of the other worlds we inhabit, a hopeful act of restoration and care."

Project Needs

In addition to the team-building workshops noted above, part of the collaboration with BETA will also involve planning an approximately 20'x20' pollinator garden at BETA's South Burlington campus. The created clay bee habitat tubes will be installed within this new garden space. Specific needs related to this initiative fall into four categories: garden design and maintenance, communications, sculptural element design, and bigger picture thinking around the goals and approaches of this initiative.

Garden

- Your partner has already established a core list of possible plants for the initial garden space, but she would like you to take a deeper research dive into these plants and the pollinators species that they support in order to *finalize an optimized/prioritized list*.
- *Respond to draft plot designs* (inclusive of plantings, sculptural elements, and seating areas) through your research into the nesting needs (and related criteria) of pollinators that are indigenous to the area.
- *Detail the needs for continued, long-term upkeep of the space* (with attention to future climate impacts) including any watering and weeding and when to cut the garden back.
- Identify how this garden can become *officially designated as a [Pollinator Pathway](#) project*.
- For future expansion of this work, *design three varying size and types of gardens* that your partner can share with individuals as the business grows. For example, one that is part shade to include some shade plants, one with water elements and other types of support for pollinators like piles of clay, and one including the creation of sandy sections for ground bees.
- There is also the possibility that this work could be expanded to identify *site-specific landscape needs at BETA's charging pad locations* that are scattered across the country. *This team should plan to develop some sample designs for a few sites* and share them with the head of BETA's creative team.

Outreach and Communications

- *Create a Power point presentation to be given to Beta employees* scheduled for the end of March that not only informs them of the need for pollinator support, but also gets them excited to participate in the creation of the clay elements that will make up the sculptural elements in the garden. *Participate in giving the presentation*, as well as assisting with the planned series of Friday workshops as your schedules allow. Beta staff are very excited to connect with Middlebury students and to develop education and engagement with the community on environmental issues as part of their mission.

Sculptural Elements

- *Research preexisting designs that support these pollinators and their pros and cons*. This will inform the types of designs that incorporate the use of clay as a new material in the habitats. This use of clay is central to community participation and engagement goals noted above. Jennifer notes that, "a hands-on bonding experience that brings folks together around a primal, satisfying material in workshops will be the beginning of every event. The making aspect allows participants to buy into the production and togetherness this project promotes."-
- *Work/Brainstorm with Jennifer and a collaborating metal artist Aaron Grossman regarding the design of the superstructure* that will go into the ground that will support the individual clay habitat elements.
- Create some clay works yourselves!

Bigger Picture Questions

- What are successful models for team-building activities in corporations seeking to engage their employees with environmental issues? How can we harness those successes into this project?
- What would a guiding mission statement for this type of work look like? What principles are motivating this work and how can those principles be best communicated?
- What sorts of structures can best support the life cycles and needs of bees/other pollinators while also serving to bring joy to humans.
- Are there issues with importing bees from other states to “seed” these gardens? What might those issues be?
- What are the pros and cons of anthropomorphizing the more-than-human world? Why do we do it? In what ways does it help us to make connections between humans and other living beings? In what ways might it interfere?
- How do we acknowledge and address the environmental impacts of corporations (including “green” corporations) while still promoting this engagement?

Your answers to these and other questions that you develop with your partner will ideally inform the further development of her business model.

Project #2: The Crowded Table: A Communal Meal on the Shores of Significant Change

Community Partner: Aly Perry, Future Tactics Creative Director and Co-Writer and the Future Tactics Team

What if the conventional boundaries between “the arts” and daily life were more often challenged and disassembled? What would we learn by being invited into creative spaces that challenge cultural norms, especially those norms that have led us into the social and environmental crises we now face? What kinds of cultural change might unfold if we all took on the role of being artists of our own lives?

Background / Context

[Aly Perry](#) describes herself as, “a multi-disciplinary artist based in Vermont who builds worlds through a variety of mediums, often in the form of live performance and design.” Her work is motivated through the belief that “live arts hold the seed for sparking radical transformation through shared experiences of the heart’s poetic landscape intersecting with a public self.” As part of her current work, Aly created Future Tactics, a group of creatives who are intent on creating immersive experiences for Vermont audiences.

The Future Tactics team is in the research and development phase of a new interactive work called *The Crowded Table*. This is a live event that they aim to stage during the week of the summer solstice on the shores of Lake Champlain in 2024. One of the goals of this project— building on previous interactive experiences that Aly and her team have designed— is to use interactivity, immersion, and surprise to break down presumed audience/performer constructs. The purpose is to create “radical public intimacy” and deep engagement around the most challenging questions that we are facing today. This type of engagement is a unique model for how we might think about exploring some of the most pressing and intractable environmental and societal challenges we face.

The set-up for *The Crowded Table* experience centers around a communal meal located at the precipice of significant change. Guests are invited to a solstice celebration promising a market-value farm-to-table meal. They are, however, met with interconnected dinnerware that defies individual consumption of food. This “problem” provokes—in a very tangible way— the extent to which everything is reliant on something else in order to meet its purpose: the recognition of our radical interdependence.

What happens next? The conversation, which invites participation, is seemingly freeform, but, it is actually a carefully scaffolded facilitation of some of the most challenging conversations of our time. Guests will have to work together to make decisions collectively as disruptions unfold and persist; unwelcome guests arrive and external events shift the expectations of the meal. Over the span of 45 minutes, the sun will set, the tide will rise, and several “courses” will arrive. What once was assumed to be a design-forward exclusive dinner event concedes to Earth’s reclaiming of space and the mutual aid responses that “disaster” demands.

The types of questions and situations that will be explored include:

- What are the rites of space?
- How do we inhabit “new territory?”
- Who claims the narrative?
- What are the expectations around meals and ceremony. How do we make room at the table?
- How is our personal nourishment interconnected and in conflict with our search for capital and status?

Project Need

Your partners are excited to utilize the strengths and interests of the students on this *team for designing both the content and the overarching conceit of The Crowded Table*. *The team values your ability to support the intersection of science and humanities with provocative, socially-transformational event production*. They are also looking to strengthen Future Tactics’ working practices and incorporation of conflict transformation practices by learning from Middlebury College’s work in this area. **[add the weblink to MC conflict and transformation initiative <https://www.middlebury.edu/office/conflict-transformation> ?]** While your involvement in the development of *The Crowded Table* will most immediately serve the goals of the project itself, our hope is that it will also spark within you some creative and innovative ways to engage in the challenging dialogues that we all will face going forward.

Project needs include:

Idea Generation: Research & assist in the creation of material and *The Crowded Table's* situational frameworks through a series of meetings and collaborations with various members of Future Tactics.

Event Planning: While the actual performance of *The Crowded Table* will not take place until June of 2024, Aly and her partners are interested in bringing preliminary ideas to life via a workshop-showcase this May. You will assist with the development, running, and logistical support for this event. Your partners envision a 20-minute “beta experience” with Middlebury students, professors, and community members, likely in a Middlebury location. As an assessment of this experience, this team should also plan to gather audience testimonials and continue to tweak *Crowded Table's* situational framework and script to best actualize Future Tactics’ performance goals for the 2024 event.

Participate: As this project develops over the course of our semester, there is the potential for you to behave as a scripted guest alongside Future Tactics for the workshop showcase.

Development: Your work can also help develop to Future Tactic’s project portfolio for seeking future partnerships and grant proposals to support *The Crowded Table* as a fully realized production event

The full project pitch for *The Crowded Table* can be found [here](#).

Project #3: Identifying Critical Gaps in Bicycle and Pedestrian Infrastructure

Partner: Maddison Shropshire, Energy Planner, Addison County Regional Planning Commission

What if the world we traveled through sparked our creativity and imaginations because the modes of traveling through it were rich in opportunities? What if those modes of travel were also ecologically responsible, intrinsically health-promoting and accessible and affordable to all?

Background / Context

The federal [Department of Transportation](#) defines transportation equity to mean, “seeking fairness in mobility and accessibility to meet the needs of all community members. A central goal is to facilitate social and economic opportunities by providing equitable levels of access to affordable and reliable transportation options based on the needs of the populations being served, particularly populations that are traditionally underserved.” Further, they go on to say that an “equitable transportation plan considers the circumstances impacting a community’s mobility and connectivity needs and considering equity early and often through methods such as public participation and data collection and analysis [that] improves the planning process’s ability to adequately respond to the needs of the community it serves.”

Building on these federal principles, in January of 2022, the Vermont Agency of Transportation (VTrans) launched a two-year process last to develop a [Transportation Equity Framework](#) for the state. Issues emerging from listening sessions being conducted as part of this process for Addison County include transportation barriers facing migrant workers, as well as those facing young people in school and older residents in need of transport to appointments and to access food.

For our region, the [Addison County Regional Planning Commission](#) (ACRPC) is taking the lead on developing and facilitating several projects linking transportation needs, equity, and health. These include:

1. *VTrans Bike/ Ped Planning Grant*: VTrans is looking to collect data on bike/ped needs in our communities so they can be taken into consideration when big projects are already being planned (e.g., a new planned development or infrastructure work paired with major road resurfacing). This data will help in seeking and acquiring funds for planning work that will allow the ACRPC to pursue equity goals including safe transportation for all, clean transportation options, etc. The state’s Equity Impact Assessment tool is integrated into VTrans’ bike/ped programs and grants and equity is one of the key considerations in the grant evaluation rubric.
2. *Regional Planning Commissions Health Equity [toolkit \(draft\)](#) and Planning Grant*: This program funds RPCs to work with a few towns on planning projects specifically related to health equity. Bike/ped issues are a very visible and necessary example of the kinds of planning that the ACRPC is thinking about, but the relationship between bike/ped access and health is not always obvious to legislators or to the broader public.
3. *Health Equity Workshop*: in partnership with the Vermont Department of Health (VDH) and their [technical assistance program](#), ACRPC is hosting a two-part webinar series (Feb 14 and Feb 21) entitled, “Creating a Healthier Vermont: Advancing Health Equity through Placemaking, Funding, and Support” to support even more planning and project development around these transportation and bike/ped issues. Again, transportation will be a major focus. Full details for these webinars can be found [here](#).

Research Need

Within this framework of the *clear connections between equity, mobility, and health*, there are several core project needs that will help your partners at the ACRPC advance their above-listed initiatives. *The work of this project team will include a mix of field investigations, spatial analyses, and packaging and communicating key, accessible resources for communities in our county.* The aggregation and presentation of the results of these various methodologies will draw on the themes of creativity and visioning that are the foundation of our work together and with our partners in this practicum.

Specifically, this team will:

- Work with 2-3 towns in the county to map the location of and assess the quality of their sidewalk infrastructure, with particular consideration given to the accessibility of public amenities. Vergennes is the only town to have done this systematically ([Vergennes sidewalk map](#)) and the data are now outdated, so part of this work could be an update for Vergennes. However, we encourage this team to research and think about equity and health needs in consultation with your partner to identify the towns you choose to focus on. For example, your partner has generalized data related to food access and transportation access – what can a combination of visualizing these data and visioning a more optimal future with complete access tell us about where infrastructure improvements should be prioritized?
- Work with the ACRPC team to develop a methodology to identify critical gaps in bike infrastructure (think road shoulders) from a planning perspective. Since it would be a challenge to bike every road in the county let alone within your selected towns, how can you help your partner think about directing their efforts to improve roads for the areas most in need? You can use the methodology in the [Triangle Bike Loop Master Plan](#) as a basis for this work.
- The last category of work is related to communicating your findings and opportunities. First, the results of both of the above inventories should be shared back with the towns you worked in so that they can prioritize which infrastructure improvements they want to highlight and share with VTrans which plans to map and aggregate priority projects. Second, ACRPC maintains lists of possible funding resources to complete these needed projects, but there is a need to develop a compelling narrative of the community value of these projects and why towns should pursue funding to complete them. This could take the form of a 1-pager or a presentation or other creative idea this team may have that provides this narrative as well as a brief summary consolidation of available resources.

Reference: Starting list of [existing resources](#)

Projects #4 & 5: Imagining and Supporting the Future Development of the ACORN Food Hub

Partner: Lindsey Berk, Executive Director, Addison County Relocalization Network

What if local food systems could become a dominant, even commonplace feature of regional planning? What if local food hubs became established elements within a given community's infrastructure? What if energy, environment and economy were commonly addressed as being intrinsically related to each other and always embedded in communities? What if we started to see the widespread availability of healthy, sustainably sourced food as an essential civic virtue that demands our attention?

Background / Context

Founded in 2005 and officially incorporated as a non-profit in 2009, the [Addison County Relocalization Network](#) (ACORN), was established to “serve as a catalyst for developing local, sustainable and collaborative solutions to the challenges facing Addison County communities from the growing instability of our energy systems, environment and economy.” With a focus on provisioning sustainable sources of food, a primary goal of ACORN’s work is to “create a more cooperative and sustainable future in response to the depletion of our natural resources and the impacts of climate change; the growing disruptions in our financial and economic system; and the erosion of community and responsibility in our social and political life.” Working toward this goal will demand the mix of practical approaches, visionary imagining and creative thinking that we are delving into as our semester course theme.

With a focus on equitable food access, increased utilization of local foods, and enhanced farm viability, one of the newest endeavors that ACORN is now undertaking is the development of the ACORN [Food Hub](#). ACORN was able to launch the hub this past October in a temporary, rented warehouse space shared with the Champlain Valley Office of Economic Opportunity (CVOEO) on Exchange Street here in Middlebury. Current services include: aggregation, distribution, and storage of local foods; marketing and outreach to increase utilization of local foods, and bulk/wholesale purchasing options for the public. As noted in their Food Hub business plan, ACORN seeks to be a “nimble catalyst for developing local, sustainable and collaborative solutions that adapt to current times.” Expanding this Food Hub model and continuing to imagine its future purpose has been identified as a key needed cornerstone of an equitable and thriving food system in our region.

Research Need

ACORN currently has a two-year lease agreement with CVOEO to use the warehouse space now housing the nascent Food Hub. ACORN’s vision is to have its own dedicated space that not only can serve the current storage and warehouse functionalities, but also can include share worked space, a commercial community kitchen, space for events, and possible retail space for local value-added products. Moving towards that vision, ACORN is currently partnering with the [Addison County Economic Development Corporation](#) to obtain funding for a feasibility study from the [USDA’s Rural Development program](#). Regardless of whether this grant application is successful, there is continued research and information gathering needed to continue to move this vision forward and that is where your time and talents will be brought to bear.

Given the scope and scale of research topics of interest to your partner, we will be dedicating ***two project teams*** to support this effort.

Team #1 will focus on Net Zero architectural design and identifying funding sources and arrangements that would enable the attainment of these design goals:

- **Design:** An additional component of ACORN's vision for the Food Hub is that the physical structure and space will be Net Zero. ACORN will also strive to take into account the full lifecycle costs of materials and their transport, to meet equitable labor standards, and to design a space that is aesthetically and ecologically integrated with its physical surroundings. Starting with resources such as the [Zero Energy Buildings Resource Hub](#) and [Living Building Challenge](#) and then diving in to additional resources that you will identify, *detail what obtaining these visionary standards and goals would mean in all practicality in terms of: building design and specifications, site selection, needed utility connections, etc.*
- **Fund:** A range of funding streams will be required to meet ACORN's design goals. This team will also *identify potential funding streams* (including, but not limited to, specific grants, foundations and/or private entities that might serve as anchor tenants, crowdfunding platforms, or creative "crowdgranting" platforms like [Vermont's Better Places](#) program). The team will detail what funding is available, identify requirements for submitting grant applications, and match needs. Some starting direction for exploration includes funding opportunities outlined through the [Vermont League of Cities and Towns](#). Possible funding streams to tap into for clean energy and climate action as detailed in the [Inflation Reduction Act \(IRA\) Guidebook](#), the Economic and Infrastructure Development Investment Program of the [Northern Border Regional Commission](#), and the Vermont Department of Health's [Health Equity Capacity Building Grants](#). Helping to identify potential funding streams is central to the work of many non-profits and exemplifies the type of creative framing work ACORN would need to apply for various grants – i.e., how would you help ACORN make the link between the value of access to local foods and zero energy building and health equity? Lastly, congressional earmarks could be another avenue to explore through connecting with the local staffers for Representative Balint or Senators Sanders and Welch.

Team #2 will focus on a series of efforts that, through deepening and strengthening relationships with Middlebury College, can enhance the chances of success of this initiative via this institutional partnership.

- **Site:** In possible collaboration with an emerging GIS assessment of the ways that college land holdings are utilized, this team *could identify 2 or 3 Middlebury College-owned plots to compare and assess for meeting the core criteria for the Food Hub vision* (e.g., accessible for trucking and appropriate for public access to name just two).
- **Commercial kitchen utilization:** As noted above, one important facet of the Food Hub will be a commercial community kitchen. In preliminary conversations your partner has had with Middlebury College's Director of Business Services regarding using college lands to potential sites for the Food Hub, *there was interest in knowing how a community kitchen would benefit the college community. To this end, design and conduct a survey of Middlebury students, faculty, and staff about how they might utilize this kitchen space.*
- **Campaign to increase the utilization of local foods:** Lastly, one fundamental goal of the Food Hub is to increase both the accessibility of AND utilization of local foods. The College's Sustainability Office notes that currently "32% of the annual food budget is spent locally at more than 50 year-long and seasonal vendors."¹ While we value this ongoing commitment to supporting local food

¹ <https://www.middlebury.edu/office/dining-services/sustainability/local-food>

systems, the system can only be strengthened if even more local foods were purchased on campus. Through an informed and measured approach, *engage with key stakeholders to learn about barriers to and opportunities for increasing the amount of local food purchased by the college and develop a compelling set of recommended steps for this increase.*