### Thesis Prospectus 2022-23

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**Faculty Reader Approval (date):**

**MES Director Approval (date):**

1. Working title of your thesis[[1]](#footnote-1).

Emerging Evergreen: Growing Community Resilience in Demeter’s Garden

1. In 250 words or less, summarize the key background information needed to understand your research problem and question.

Forest gardens are an Indigenous method of gardening seen in various models throughout the world. They tend to use trees, shrubs, vines, and groundcover species along with annual plants and herbs to create their own resilient ecosystems that have little need for chemical fertilizer and pesticides. Recent research into tribal forest gardens in British Columbia, Canada, show that these PNW gardens, maintained for hundreds of years and forcibly abandoned over a century ago, keep encroaching conifers at bay while providing food and shelter for wildlife while producing large drought-resistant seeds, suggesting an inherent resilience to the effects of climate change (Armstrong et al., 2021).

This model has recently been adapted for urban spaces to support food security, justice, and sovereignty (Beacon Food Forest, 2020; Burt, K. G. et al., 2021; Smith II, B. J., 2019). Because community forest gardens are less labor-intensive on individuals than traditional pay-per-plot gardens, they lessen the potential for failed harvests amongst people with the least time and energy to devote to the nurturing practice of gardening and harvesting.

Evergreen faculty member Steve Scheuerell and the club Students for Community Agriculture and Regenerative Farming (SCARF) are beginning revitalization of Demeter’s Garden this academic year, addressing safety hazards and the stinging nettle and comfrey that have overtaken the forest garden. With this overhaul, they have the opportunity to establish priorities for the space, including choices of plant species, species groupings, structures, acceptable practices, community accessibility, and presented educational information. Focusing on resilience and relevance to Evergreen’s students, employees and neighbors, these parties seek possible models for rebuilding this space.

1. State your research question(s).

To what extent can Demeter's Garden revitalization support resilience in the Evergreen Community?

* Are people interested in having relationships with their local ecology?
* Are they satisfied with the methods Evergreen has already enacted?
* If not, what does the community want to bolster their relationships?

1. Situate your research problem within the relevant literature. What is the theoretical and/or practical framework of your research problem?

Analyzing the evolution of human leadership in the context of quantum systems and chaos theory, Nick Obolensky explored the concept of *emergence* as a way of crafting adaptive leadership for complex organizations, defining emergence as “the way complex systems and patterns arise out of a multiplicity of relatively small interactions” (Obolensky, 2016). Writer and activist adrienne maree brown explored this concept further in her book *Emergent Strategy: Shaping Change, Changing Worlds* with the emphasis that emergence is about “critical connections over critical mass, building authentic relationships, listening with all the senses of the body and mind.” Coupled with intentionality, *emergent strategy* is a framework for supporting collective community resilience (brown, 2017).

I seek to use Emergent Strategy for exploring the fractal, interdependent, and practical possibilities of Demeter’s Garden. I recognize that the space has an incredible potential for interaction, learning, and healing for the Evergreen community, but I also recognize that my ideas for the space are limited by my upbringing, biology, and education, as are any individual’s. Facilitating collective input on what the community values through deep discussion between diverse people may inspire relationships that can carry support for ideas over time. Demeter’s Garden is a prime location for this because the revisioning process is just beginning and it has labor commitments from academics and the student club SCARF.

1. Explain the significance of this research problem. Why is this research important? What are the potential contributions of your work? How might your work advance scholarship?

Urban community forest gardens have incredible potential to provide pollinator habitat, urban greening, unprocessed food, medicine, craft materials, community gathering space, and ethnobotanical knowledge. With deeper interaction, they provide a place for connection, for honoring diversity, and supporting resilient. For Evergreen, this means honoring the traditional plant-human relationships of those who have been here since time immemorial, and those who are currently in the Evergreen community. As of 2021, this includes many students and employees who identify with minority categories: 60% of Olympia campus students identified as being gay, lesbian, bisexual, or queer, and 31% identified as gender non-conforming (Student Experience Survey 2021). 28% of Evergreen students identified as people of color (First Time, First Year Applicants and Students). Also, 27% of instructional faculty and 25% of staff identified as people of color (Faculty and Staff Data Fall 2021). In Fall 2018, 14.6% of Olympia campus undergraduates identified as having a disability (Student Disability Statistics 2018). By aiding the Evergreen community’s sense of place and acknowledging our diversity, we can help shift the focus from commodifying plants and people to prioritizing reciprocal relationships.

For the greater PNW and beyond, this exploration may provide a model for others to efficiently create gardens that can support ecological, bodily, and emotional health. While a garden honoring Indigenous knowledge is inherently place-based, communities in other regions may be able to use information from Demeter’s Garden efforts to support their own local relationships.

1. Summarize your study design[[2]](#footnote-2). If applicable, identify the key variables in your study. What is their relationship to each other? For example, which variables are you considering as independent (explanatory) and dependent (response)?

My study will involve a campus-wide survey and a set of charrette workgroups.

The survey will ask Evergreen students and employees for their demographics (race/ethnicity, gender, LQBTQIA+ identity, disability), whether they already have significant place-based relationships, and how they would like to interact with Demeter’s Garden. The survey will be open for a few weeks. The results from this will help clarify the community’s current sense of place, whether they are interested in what place-based relationships can offer, and ideas for strengthening them.

Findings of the survey will be explored and expanded upon in the following workgroups. By the end of the charrette period, I plan to have a clear list of actionable interests agreed upon by participants.

1. Describe the data that will be the foundation of your thesis. Will you use existing data, or gather new data (or both)? Describe the process of acquiring or collecting data[[3]](#footnote-3).

Existing research will inform the potential ecological benefits of Demeter’s Garden in the Literature Review portion. I will collect new data in the form of survey and workgroup responses to establish the current and possible relationships the Evergreen community could have with our local environment. Ideally I will conduct workgroups in the garden space, but if winter weather is too adverse I will facilitate the workgroups in a covered space on campus.

1. Summarize your methods of data analysis. If applicable, discuss any specific techniques, tests, or approaches that you will use to answer your research question.

I will analyze survey responses for similar themes, including repetitive words and intent. I will also note if few people contribute to the survey or workgroups; while actions suggested by a small collective may be useful, it is more likely to miss opportunities that favor the more diverse community.

1. Address the ethical issues[[4]](#footnote-4) raised by your thesis work. Include issues such as risks to anyone involved in the research, as well as specific people or groups that might benefit from or be harmed by your thesis work, perhaps depending on your results. List any specific reviews you must complete first (e.g., Human Subjects Review or Animal Use Protocol Form).

I will be completing the Human Subjects Review. Because the survey and workgroup topics deal with relationships, it is possible participants will be reminded of unpleasant relationships, and undergo psychological distress. Additionally, I would like to hold the workgroups in Demeter’s Garden and possibly other parts of campus, which risks cold and wet weather, uneven terrain, and contact with stinging plants. Finally, I run the risk of appropriating traditional ecological knowledge if I do not acknowledge when information originates from local Indigenous peoples, or if I misrepresent what information has been provided.

1. List specific research permits[[5]](#footnote-5) or permissions you need to obtain before you begin collecting data (e.g. landowner permissions, agency permits).

None required. I may request access to the Sustainable Agriculture Lab as a secondary workgroup gathering space if weather would likely dissuade people from meeting outside.

1. Reflect on how your positionality as a researcher could affect your results and how you will account for this in the research process[[6]](#footnote-6).

I have moved around the U.S. quite a bit, but never considered integrating with a local ecosystem until I moved to the PNW. I am also new to the field of social-emotional learning with plants, so my understanding of its possibilities is still rapidly evolving. As such, the ideas I offer to begin facilitating discussions is limited and I must be open to the variety of ideas participants may suggest.

I am a white person who wants to incorporate local Indigenous understandings of plants, so I must be conscious of appreciating what has been and could be shared by local knowledge holders without appropriating their knowledge and ways of knowing.

I am also female-presenting, queer, philosophical, and not strongly attached to many human communities, all aspects that have influenced my connection to less-built spaces in ways that others may not have experienced. I don’t want to assume that my relationship with local ecologies is mirrored by others, or that they want similar relationships. I can bring certain ideas to the table, but I want this to be a collective discovery process.

Because I am older than most undergrads and the facilitator of this project, student participants may follow my lead rather than speak their own minds. Similarly, because I am likely younger than any employees that will participate, they may be more likely to talk over me because of their age and experience. I will do my best to ensure everyone feels heard without allowing an individual to sidetrack the workgroup conversations.

1. Provide at least a rough estimate of the costs associated with conducting your research, if any.  Provide details about each budget item so that the breakdown of the final cost is clear.

$0. I may purchase some snacks and drinks for the workgroups.

1. Provide a detailed working outline of your thesis.
2. Introduction
   1. Who makes up the Evergreen community, and why look into their social-ecological resilience
   2. May include positionality here
3. Literature Review
   1. Social-ecological theories of resilience
      1. Definitions in different applications
      2. Resilience is relational, bridging social and environmental spheres
      3. Social-ecological resilience at Evergreen
   2. Exploring models for boosting community people-plant relationships
      1. Social-emotional plant relationships
      2. PNW Indigenous forest garden resilience
      3. The justice origins of urban community gardens across the U.S.
      4. The popularized permaculture model of forest gardening
      5. Incorporating ethnobotanical elements
4. Methods
   1. Background
      1. Emergent Strategy framework (brown, 2017)
      2. Successful ethnobotanical garden attributes framework (Jones & Hoversten, 2004)
      3. Evergreen’s current ethnobotanical elements
   2. Online survey
   3. In-person charette workgroups
5. Results & Discussion
   1. Survey results, themes, narratives
   2. Workgroup narratives, list of actionable suggestions
6. Conclusion
7. References
8. Appendices of Survey questions, Workgroup topics
9. Provide a specific work plan and a timeline for each of the major tasks in the work plan. Be as realistic and specific as you can at this point, including the deadlines for Spring quarter.

I will continue to research my topic throughout Winter Break and Quarter. I would also like to talk with Marja Eloheimo about her efforts with the campus ethnobotanical garden, so I will try reaching out to her again.

Winter Break: Finish CITI training.

Finalize survey questions (and charrette topics as much as possible).

Finalize survey advertisements.

By Jan 8: Submit IRB application.

Once approved, advertise survey around campus + request advertising in school emails.

By Feb 1: Open survey for 2-3 weeks. Compile data. Finalize workgroup topics.

By Mar 20: Facilitate charrette workgroups. Compile workgroup results.

April 11: Share full thesis draft, begin revision phase.

May 5: Submit *Request to Present Thesis Research* to MES Director.

~ May 22: Thesis Presentation.

May 29: Submit final thesis draft.

June 9: Submit FINAL approved thesis.

1. Who (if anyone), beyond your MES thesis reader, will support your thesis (in or outside of Evergreen)? Be specific about who they are and in what capacity they will support your thesis. If you are working with an outside agency or expert, be specific about their expectations for your data analysis or publication of results.

None.

1. Provide the 5 most important references you have used to identify the specific questions and context of your topic, help with issues of research design and analysis, and/or provide a basis for interpretation. Annotate these references with notes on how they relate to/will be helpful for your thesis. For any other sources cited in your prospectus in other answers, provide a complete bibliographic citation here as well.

Armstrong, C. G., Miller, J., McAlvay, A., Ritchie, P. M., & Lepofsky, D. (2021).

Historical Indigenous land-use explains plant functional trait diversity. *Ecology*

*and Society*, 26(2). https://doi.org/10.5751/ES-12322-260-206

The authors of this paper were affiliated with Simon Fraser University, Stanford University, New York Botanical Garden, and University of British Columbia, and worked with the Kitsumkalum, Kitselas, Sts'ailes, and Tsleil-Waututh First Nations. Armstrong et al. analyzed the functional diversity legacies of forest gardens surrounding four archaeological Indigenous village complexes in British Columbia, Canada. They found that these cultivated gardens, despite being forcibly abandoned in the late 1800s, are still functionally distinct from the surrounding coniferous forest. The gardens produce seeds of higher mass than those of non-cultivated plants (suggesting higher drought tolerance and fruit production) and continue to provide food and habitat for forest mammals. This information helps establish the success of forest gardening in the PNW, and gives more context to the deep legacy of local ethnobotanical relationships. This also helps to create distinctions between the usefulness of community forest gardens and traditional pay-per-plot annual-focused gardens. First, emphasizing perennial plants like trees and shrubs allows a community to tend low-maintenance, nutrient-cycling plants together, decreasing the risk of harvest failure for individuals. Second, emphasizing native plants increases habitat availability to local pollinators, aiding local ecological resilience. Each of these factors increase a community garden’s potential resilience to climate change.

Beacon Food Forest. (2020) 2020 Annual Report.

<https://beaconfoodforest.org/annual-reports>

brown, a. m. (2017). *Emergent Strategy: Shaping Change, Changing Worlds*. AK

Press.

Burt, K. G., Mayer, G., & Paul, R. (2021). A systematic, mixed studies review of the

outcomes of community garden participation related to food justice. *Local Environment*, 26(1), 17-42. https://doi.org/10.1080/13549839.2020.1861589

The authors were affiliated with the Department of Health Sciences at Lehman College and Program in Nutrition at Columbia University. Burt et al. explored whether community gardens across the world aid local food justice efforts with a mixed studies review (using the Mixed Methods Appraisal Tool) of peer-reviewed scholarly articles on the social and dietary outcomes of community garden participation, finding 31 relevant articles in ScienceDirect, PubMed, CINAHL, and ProQuest Public Health. They found that garden participants report significant social benefits and greater connection with their community, and they generally eat more fruits and vegetables than non-participants. Additionally, gardeners have access to a wider range and higher quality of produce than non-participants. However, the authors noted that none of the studies approached their research with a social justice lens, leaving out key information like income and racial demographics. I also note the researchers never requested LGBTQIA+ spectrum and disability status. This information is useful for understanding that peer-reviewed studies on the intersection of community gardens and social justice is limited, and that there is room to explore the connections between various kinds of justice and more-than-human relationships.

Defebaugh, W. (2021, June 09). Queen P: Pattie Gonia on Drag and Identity in the

Outdoors. *Atmos*. [https://atmos.earth/pattie-gonia-environmentalist-drag-queen-](https://atmos.earth/pattie-gonia-environmentalist-drag-queen-interview/)

[interview/](https://atmos.earth/pattie-gonia-environmentalist-drag-queen-interview/)

This interview explores the intersection of personal identity and relationship to nature. Pattie, who also performs as Ginger Snap, initially struggled with the imposed binaries of gay/straight, male/female, etc. of their youth, until they brought their high-heeled boots on a backpacking trip to be worn on the summit. Pattie found freedom in that space, recognizing that nature was not judging them. Pattie has since raised money through drag shows, group hikes, and beach cleanups for BIPOC and LGBTQIA+ programs. Pattie believes that people have to connect with nature and climate before they will advocate for it. They emphasize that queerness does exist in nature, that masculinity is not a requirement for connecting with the outdoors, and recognizes that every person has a part to play in the greater ecosystem. This interview is representative of other queer ecology stories I’ve found, in which the storytellers feel held by nature, finding meanings, personal power and community that they felt otherwise denied. I believe that acknowledging the power of these relationships can help direct what information is shared in Demeter’s Garden, considering that 60% of students on Olympia’s campus identify at being on the LGBTQIA+ spectrum, ~25% of students and faculty identify as people of color, and 14% of students identify as having a disability, all categories that can mark someone as societally “other.”

Faculty and Staff Data Fall 2021. (2021). The Evergreen State College.

<https://www.evergreen.edu/institutionalresearch/faculty-and-staff-data>

Fall 2022 Enrollment Survey. (2022). The Evergreen State College.

[https://www.evergreen.edu/sites/default/files/2022-10/Fall%202022%20](https://www.evergreen.edu/sites/default/files/2022-10/Fall%202022%20Enrollment%20Summary.pdf)

[Enrollment%20Summary.pdf](https://www.evergreen.edu/sites/default/files/2022-10/Fall%202022%20Enrollment%20Summary.pdf)

First Time, First Year Applicants and Students. (2021). The Evergreen State College.

[https://www.evergreen.edu/institutionalresearch/first-time-first-year-](https://www.evergreen.edu/institutionalresearch/first-time-first-year-applicants-and-students)

[applicants-and-students](https://www.evergreen.edu/institutionalresearch/first-time-first-year-applicants-and-students)

Jones, S. B., & Hoversten, M. E. (2004). Attributes of a successful ethnobotanical

garden. *Landscape Journal,* Vol 23 (2). (pp 153-169).

Obolensky, N. (2016). *Complex Adaptive Leadership: Embracing Paradox and*

*Uncertainty*. (2nd edition). Routledge.

Student Disability Statistics 2018. (2018). The Evergreen State College.

<https://www.evergreen.edu/sites/default/files/disability%20data_1819.pdf>

Student Experience Survey 2021. (2021). The Evergreen State College.

<https://www.evergreen.edu/institutionalresearch/responses-evergreen-student-experience-survey-2021>

Tend, Gather and Grow curriculum. (2022). Garden Raised Bounty (GRuB).

<https://www.goodgrub.org/wild-foods/wild-foods-medicine-resources>

This K-12 place-based curriculum was designed by GRuB members and local Indigenous culture keepers for native and non-native teachers and students to honor and utilize PNW plants while protecting cultural ecosystems. These lessons include guidance on interacting with a variety of native culturally significant (and non-threatened) species, including their common, latin, and native names, identifying features, ecosystem interactions, harvest methods, and traditional uses. They also suggest different activities based on students’ grade level, from collecting leaves and discussing how bigleaf maple shows willingness and in what situations students feel willful, to baking dandelion biscuits or making orange dye from Alder bark. The lesson plan signifies what local Indigenous teachers were comfortable with and found value in sharing with the public. There is a strong emphasis on asking what we can give to the plants before asking what they can give us. This mindset will be useful for assessing how species education should be presented in Demeter’s Garden, and what practices might be encouraged or forbidden in the space.

Smith II, B. J. (2019). Food justice, intersectional agriculture, and the triple food

movement. Agriculture & Human Values, 36(4), 825–835.

<https://doi.org/10.1007/s10460-019-09945-y>

Smith examines how intersectional agriculture separates the U.S. food justice movement from the local food movement and commodity agriculture. Through a literature review of scholarly documents, Smith finds that commodity agriculture perpetuates reliance on highly-processed foods produced by major corporations that marginalize small farmers and degrade ecosystems, while the local food movement generally only benefits white, middle class producers and buyers. Alternatively, the U.S. food justice movement focuses on gaining access to affordable, sustainably-grown, culturally relevant foods, and is often carried by Black, Indigenous, and Queer communities. Smith emphasizes the importance of oppressed communities to self-determine their food needs and solutions rather than have solutions dictated to them. Smith makes it clear that for a community garden to bring food justice to a community, it must be a community-driven effort. However, many of these gardens deal with instability, and Evergreen has a history of enabling student projects (aquaculture farm attached to dorms, garden spaces, biofuel generator, Evergreen Trails Association) without support systems to carry on these projects once the initial students have left. This begs the question, in what ways can Demeter’s Garden remain stable and relevant to future generations of students while keeping the space interactive?

1. You are not locked into this title; we want you to identify the main point or topic of your thesis. [↑](#footnote-ref-1)
2. You might discuss selection of case studies, sampling methods, experimental design, and/or specific hypotheses you will test. You should also address any specialized knowledge or skills that are necessary to complete the research. [↑](#footnote-ref-2)
3. If you are planning to use existing data, explain the specific source, contact information, arrangement with collaborating agencies, and expectations about use of data and final products of your research. If you are planning to gather new data, describe specific methods, time, place, and equipment that will be required. [↑](#footnote-ref-3)
4. If you’re not sure where to start, consult a ‘Code of Ethics’ or other similar document from an academic society in an applicable field of study. [↑](#footnote-ref-4)
5. If you are collecting ANY samples or data, even observational data, on public lands (city, county, state and/or federal) it is your responsibility to find out the permit requirements BEFORE you collect data. Conducting research with tribal members/on tribal lands will have different and additional requirements. [↑](#footnote-ref-5)
6. Your *positionality as a researcher* refers to the fact that one’s “…beliefs, values systems, and moral stances are as fundamentally present and inseparable from the research process as [one]’s physical, virtual, or metaphorical presence when facilitating, participating and/or leading the research project…” (The Weingarten Blog 2017). [↑](#footnote-ref-6)