Course Overview
Students in this online course explore the people, places, and practices that restore nature and revitalize neighborhoods. Civic ecology practices – community gardening, stream restoration, tree planting, litter cleanups, oyster restoration, and constructing bioswale or memorial gardens -- are a means for communities to rebuild and express resilience in places impacted by environmental degradation, poverty, and crime, and after natural disaster and conflict. Civic ecology is the study of the individual, community, and environmental outcomes of these practices, and their roles in governance and ecosystems. Participants in this interdisciplinary course learn about contemporary thinking in social-ecological systems, resilience, and nature and human and community well-being. They also contribute to a local civic ecology practice through the course service learning project.

Throughout this course, you will:
- Explore the people, places, and practices that restore nature and revitalize neighborhoods, making a difference in ways big and small.
- Discuss and evaluate contemporary thinking in resilience, social-ecological systems, and the relationship between nature and human/community wellbeing.
- Build an understanding of how civil ecology enables those with limited resources to defy and cope with daily struggles, including poverty and environmental degradation, and after disaster and conflict.
- Acquire the knowledge and skill set to enact change in your own community.
- Complete a civic ecology Service Learning project to turn classroom learning into real-life application.
- Be part of a global community of like-minded people who share their stewardship practices, ideas, and resources.

This course is ideal for a learner who is intrigued by how we can link social and environmental solutions, or has a desire to delve into an emerging 21st Century, cross-disciplinary subject area.

Textbook
Many of the readings are from Civic Ecology: Adaptation and Transformation from the Ground Up, by Marianne E Krasny and Keith G Tidball and published by MIT Press. These and all other assigned readings can be accessed for free on the course platform. Feel free to order a copy of the book for yourself but that is not required to complete the course. https://mitpress.mit.edu/books/civic-ecology

Languages
The course is conducted in English with English, Spanish, and Chinese subtitles for the lectures. Chinese teaching assistants help Chinese speakers through social media and special webinars. We often have Spanish and other language-speakers form their own social media “community groups” to share resources and help each other with the course.
Instructors

Marianne E. Krasny, Instructor

Marianne E. Krasny is professor in the Department of Natural Resources and Director of the Civic Ecology Lab at Cornell University. Her recent books include Civic Ecology: Adaptation and Transformation from the Ground Up (with Keith Tidball), Urban Environmental Education Review (with A. Russ), and Grassroots to Global: Broader Impacts of Civic Ecology. She has served as lead instructor for multiple environmental education online courses for international audiences, and was director of EECapacity, EPA’s National Environmental Education Training Program, and of the Garden Mosaics community gardening intergenerational education program. Dr. Krasny is a Public Voices Fellow with The Op-Ed Project and an International Fellow of the Royal Swedish Academy of Agriculture and Forestry. She draws inspiration from civic ecology stewards who create beauty in broken places, and seeks to expand opportunities for others to join and benefit from civic ecology practices.

Keith G. Tidball, Co-instructor

Keith G. Tidball is Senior Extension Associate in the Department of Natural Resources and Assistant Director of Cornell Cooperative Extension for Military Families, Veterans, and Disaster Education. He is also the New York State Coordinator for the NY Extension Disaster Education Network. Dr. Tidball’s research and extension work focus on the dynamics of natural resource management in disasters and war. His publications include Greening in the Red Zone: Disaster, Resilience, and Community Greening, as well as numerous other book chapters and journal articles.

Alex Kudryavtsev, Co-instructor

Alex Kudryavtsev is an environmental education researcher and online course director in the Cornell University Civic Ecology Lab. He started working in environmental education in an NGO in Russia in 1996, and received his MS and PhD degrees in urban environmental education and sense of place at Cornell University. Alex is first editor of Urban Environmental Education Review and author of a number of other publications. Alex likes learning from diverse places and cultures, and has traveled to all continents while observing environmental education and stewardship programs. He serves as an advisor for the Global Environmental Education Partnership network.

Yue Li, Co-Instructor

Yue Li is a postdoc and online course instructor in the Civic Ecology Lab at Cornell University. Through her research and outreach, she seeks to understand how networking among environmental educators in online learning communities fosters innovation in education practice in China, the US and elsewhere. Yue taught Introduction to Civic Ecology for Chinese students in spring 2016 and 2017. She looks forward to helping learners apply civic ecology principles to practice and learn about implications of civic ecology for sustainability.
Lee Yoke Lee, Discussion Board Coordinator

Lee Yoke Lee is a Malaysian-born environmental educator working with Cornell Cooperative Extension Tompkins County on climate change adaptation and mitigation. Her projects include energy efficiency, LED streetlight conversion, and stormwater infrastructure mapping. She is also the Youth Garden Coordinator with GreenStar Community Projects and leads a 6-week garden-based learning program at Esty St. Garden in Ithaca NY. She enjoys facilitating online discussion while making friends with environmental educators from around the world.

Yueyang Yu (Braven), Course Assistant

Yueyang Yu completed her undergraduate studies in computer science at Beijing Foreign Studies University in 2018, and recently joined the Civic Ecology Lab as a masters degree student and MOOC course assistant. She was a leader in the SandCounty Academy environmental protection campus club, the Union of Beijing Environmental Protection Campus Clubs, and our online courses in China. Yueyang, who goes by the English name “Braven,” has written about sense of place in her hometown and is interested in using technology to enhance environmental education.

Community Group Leaders and Teaching Assistants

Community group leaders and teaching assistants (TAs) will help participants with different interests and who speak different languages understand the course content and engage in the course service learning project.

Course Communication

Watch for emails about the course, including weekly updates, from CivicEcology@Cornell.edu. Be sure to use the email you used for course registration and to check your clutter or junk folder. If you have a question about the course, email us at CivicEcology@Cornell.edu with “Civic Ecology MOOC” in the header.

Service Learning Project

The course service learning project enables you to apply what you learn to a real practice. Whether you are able to visit or volunteer with a practice in person, or explore a practice online, your service learning project will help the practice by sharing its story. Complete guidelines for the service learning project are available on page 12 of this document. To see example Civic Ecology student service learning projects go to <https://civeco.files.wordpress.com/2015/12/krasny_snyder_mooc_stories_2016.pdf> (This year, we are asking you to limit your project to five pages.)
Learning Outcomes
Through this course, you will:

1. Define civic ecology and civic ecology practices.
2. Describe a diversity of civic ecology practices, volunteer stewards, and places.
3. Identify the commonalities among civic ecology practices, including how they emerge and their components, interactions with larger systems, and policy implications.
4. Apply the conservation ethic and civic engagement foundations of civic ecology in your everyday life.
5. Observe, participate in, develop plans for, and/or initiate a civic ecology practice in your community.
6. Describe a civic ecology practice of your choosing.
7. Form networks with other course participants interested in continuing to explore civic ecology.

Course Schedule
The course has 12 modules. By each Tuesday at 1am New York time (GST +4) from 18 September — 30 October, we will be posting the week’s course materials as well as materials for the following week (in case you want to get ahead). All course materials will remain up until 15 November, at which point the course will close and we will no longer be accepting assignments. We recommend that you keep up with the materials posted each week, but if you get behind, you have until November 15th to complete the course.

Follow this schedule to keep up on the course. Week 1 is an introduction to civic ecology, and weeks 2-6 cover the ten civic ecology principles.

Weeks and Modules
Week 1 (Sept 18)
— Civic Ecology: What and Why?
— Civic Ecology Principles
Week 2 (Sept 25)
— Broken Places
— Love of Life, Love of Place
Week 3 (Oct 2)
— Learning
— Creating Community, Creating Connections
Week 4 (Oct 16)
— Social-Ecological Memories
— Ecosystem Services
Week 5 (Oct 23):
— Health and Well-Being
— Governance
Week 6 (Oct 30):
— Resilience
— Policy
PROJECT AND ALL ASSIGNMENTS DUE Nov 15

If you get behind, you can go back and catch up. But ALL COURSE REQUIREMENTS NEED TO BE COMPLETED, INCLUDING FINAL PROJECT, BY NOVEMBER 15 IN ORDER TO RECEIVE COURSE CERTIFICATE.
# The Ten Civic Ecology Principles

## Emergence: Where and Why do civic ecology practices happen?

1. Civic ecology practices emerge in broken places.  
   **Brief Name for Principle:** Broken places

2. Because of their love for life and love for the places they have lost, civic ecology stewards defy, reclaim and re-create these broken places.  
   **Brief Name for Principle:** Biophilia/Topophilia

## Bricolage: Piecing the practice together

3. In re-creating place, civic ecology practices re-create community.  
   **Brief Name for Principle:** Learning

4. Civic ecology stewards draw on social-ecological memories to re-create places and communities.  
   **Brief Name for Principle:** Community

5. Civic ecology practices produce ecosystem services.  
   **Brief Name for Principle:** Memories

6. Civic ecology practices foster well-being.  
   **Brief Name for Principle:** Ecosystem services

7. Civic ecology practices provide opportunities for learning.  
   **Brief Name for Principle:** Health

## Zooming Out: A systems perspective

8. Civic ecology practices start out as local innovations and expand to encompass multiple partnerships.  
   **Brief Name for Principle:** Governance

9. Civic ecology practices are embedded in cycles of chaos and renewal, which in turn are nested in social-ecological systems.  
   **Brief Name for Principle:** Resilience

## Policy Makers: Understanding and enabling

10. Policy makers have a role to play in growing civic ecology practices.  
    **Brief Name for Principle:** Policy
Networking and Enrichment Opportunities

We offer optional enrichment opportunities outside the required course assignments. We encourage students to participate in as many of these opportunities as your schedule allows—they are fun, informative, and a unique opportunity to “meet” people from around the world!

Course Social Media (Optional)

Post to our Civic Ecology MOOC Facebook Group about your own stewardship activities and civic ecology related news items. Learn about civic ecology practices from around the world, engage in discussions of civic ecology ideas, and offer support to your fellow students. Participation in course social media is optional but a great chance to form a network of like-minded people from around the world. Facebook: [https://www.facebook.com/groups/583738625103665/](https://www.facebook.com/groups/583738625103665/) We will invite you to join WeChat group when course begins (mostly in Chinese).

Webinars (Optional)

Webinars will be held each Thursday at 8am and 3pm Eastern Standard Time (EST) using Cornell’s Zoom platform (see end of this document for Zoom instructions). Schedule will be posted on EdX Edge course site, course social media, and course emails. Webinars will feature outside speakers and discussions with instructors and fellow students via audio and chat. Great opportunity to learn from the experts, ask questions, and meet fellow students!

Community Groups (Optional)

Community groups are small groups of students who meet locally (e.g., Beijing group) or virtually to discuss the course ideas and assignments, and even work together on their service learning project. Virtual community groups are for students who speak language other than English (e.g., Spanish language group), live in the same country or region (e.g., southern Nigeria group), or share a common interest (e.g., plastics/litter cleanups group). Groups generally use Facebook, WeChat, WhatsApp, Telegram, or another social media to communicate. We invite any student to volunteer to become a community leader.

Volunteer to Become a Community Leader!

If you would like to form a local, language, regional, or interest group, please fill out this Qualtrics survey and we will get back to you. Community leaders have made tremendous contributions to student learning in the past and often continue their social media groups beyond the course. Community leaders receive a special Community Leader PDF certificate, separate from the course certificate. Thank you for volunteering to be a Civic Ecology MOOC Community Leader! [https://cornell.qualtrics.com/jfe/form/SV_9p1bvVyZiW8dlDn](https://cornell.qualtrics.com/jfe/form/SV_9p1bvVyZiW8dlDn)

New Civic Ecology Book


*Grassroots to Global: Broader Impacts of Civic Ecology* explores the importance of local stewardship to social movements, faith-based organizations, city governance, among other larger impacts and meanings of these small-scale practices. The book chapters are the focus of our weekly course webinars. The first civic ecology book, *Civic Ecology: Adaptation and Transformation from the Ground Up*, provides the basis for the course lectures and readings.
Course Assignments
In each module, you will be assigned lectures, videos, articles, and readings from the Civic Ecology textbook. After watching and reading the materials, you have optional and required assignments. All required assignments—(1) answers to all discussion questions, (2) minimum of two posts on other students’ answers for each discussion question, and (3) Service Learning project—are due on NOVEMBER 15.

Optional Assignments
1. Multiple choice and true/false questions (optional but a chance for instant feedback on your answer)
2. Word clouds, polls, and surveys (optional but fun and we post results on course site!)

Required Assignments
1. Answer all discussion questions (required).
2. Post at least two responses to other students in the discussion board for each discussion question (required).

Required Service Learning Project
The Service Learning Project applying the civic ecology principles to a civic ecology practice is required. It is an important opportunity for you to apply what you have learned while contributing to your community and the environment. On December 4, we will hold an optional online workshop for those students who want to share and receive feedback on their projects from instructors.

Certificate
Cornell will issue a PDF certificate to each student who completes the required assignments. To receive the Cornell Civic Ecology MOOC certificate, participants must: (1) respond to ALL discussion board questions, (2) post at least two comments on other participants’ answers to each discussion board question, and (3) complete the Service Learning project — absolutely no later than 15 November. After 15 November, assignments absolutely cannot be accepted.

The multiple choice and true/false questions are for you to check on your own learning. Once you check an answer, you will receive feedback that explains the correct answer. These questions are NOT required to receive a certificate but it can be fun to answer them and get instant feedback.

To make the course a success for all:
- Contribute your ideas and reflections to the course discussions. The required course discussion board and optional course social media groups, webinars, and community groups offer unique opportunities to share your learning with, and to learn from, participants across the globe. To make the course a success for all, it is critical that you carefully reflect on the lectures and readings, and that you respond thoughtfully and with kindness to your fellow participants’ posts.
- Follow the edX Honor Code.
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<th>Lectures</th>
<th>Readings/Videos</th>
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<td>Sense of Community</td>
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<td>Social Capital</td>
<td>“Creating Community in Iran,” pp 50-52</td>
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<td>Social Capital – An Unlikely Means to an End</td>
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<td>Summing Up</td>
<td>“Summing Up,” pp 61-62</td>
<td>Video: Sense of Place and Community. Watch how lost boys of Sudan are reestablishing a lost sense of place and community. <a href="http://video.nationalgeographic.com/video/movies/sense-of-place-ggtu?source=relatedvideo">Link</a></td>
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<td>Social-Ecological Memories</td>
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<td>Social Memories</td>
<td>“Recreating Knowledge, Expressing Memories,” pp 72-73</td>
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### 23 Oct

#### 9. Health and Well-Being

**Seeing and Being in Nature: Health Outcomes**

Krasny and Tidball. Chapter 9, “Introduction,” pp 101-103
“Seeing green,” pp 103 – 106
“Doing Green,” pp 106-111
“Killing Trees, Killing People,” pp 111-112

**Stewardship and Well-Being**

Krasny and Tidball. Chapter 9, “Introduction,” pp 101-103
“Seeing green,” pp 103 – 106
“Doing Green,” pp 106-111
“Killing Trees, Killing People,” pp 111-112

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#### Guiding Questions, Principle 7

- Videos: Ecosystem Services [http://www.youtube.com/watch?v=BCH1Gre3Mg0](http://www.youtube.com/watch?v=BCH1Gre3Mg0)
- “Big question: What is nature worth?” [http://www.youtube.com/watch?v=TartoYpK1yI&list=PLDA5E8E2363C9441A](http://www.youtube.com/watch?v=TartoYpK1yI&list=PLDA5E8E2363C9441A)

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### 10. Governance

#### Introduction to Governance

**Polycentric Governance**

Krasny and Tidball, Chapter 8. “From the Center Out,” pp 135-137
“Multiple Centers -- Polycentric Governance,” pp 137-140
“Antagonism Blues,” pp 140-142
“The Bees and the Trees” pp 143-144
“Steward Story Nilka Martell,” pp 39-41

**Civic Environmentalism**

Video

Chicago Wilderness: People and Places.
[http://www.youtube.com/ChicagoWilderness](http://www.youtube.com/ChicagoWilderness)

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#### Guiding Questions, Principle 8


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### 30 Oct

#### 11. Resilience

**Introduction to Resilience**

Krasny and Tidball. Chapter 9, “Resilience Thinking,” pp 158 – top of page 160
“Introduction,” pp. 151-153
“Trapped,” pp. 155-156
“Shocked into New Thinking,” pp. 156-157
“Adaptation and Transformation” pp 157-158
“Resilience Thinking,” pp 160-161
Nested Systems,” pp 161-162
“Panarchy: the God of Creation and Destruction” pp 163-165
“3.6.1 Poverty traps,” pp 87-88
“3.6.2 Rigidity traps,” pp 88-89
“3.6.3 A need for transformation,” p 89
“Table 3.2 Key differences between poverty and rigidity traps,” p 89

**Panarchy**

Video

Resilience. [http://rs.resalliance.org/tag/steve-carpenter/](http://rs.resalliance.org/tag/steve-carpenter/)
<table>
<thead>
<tr>
<th>15 Nov</th>
<th>Service Learning Project and all Assignments due</th>
<th>Complete Service Learning Project Submitted</th>
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“Adaptive Co-Management.” pp 184-185  
“Introduction.” pp 175-177  
“Small Beginnings, Broader Impacts.” pp 177-178  
“Steward Story: Nilka Martell,” pp 39-41 (also assigned in module 10)  
“Steward Story: Nam-sun Park,” pp 147-149  
“Policy Entrepreneur as Environment Shaper,” pp 185-187  
“Policy Entrepreneur as Scale-Crossing Broker,” pp 187-190  
“Bridging Across Scales and Place,” pp 190-191  
“Summing Up,” pp 191-193  
Guidelines for Civic Ecology MOOC Service Learning Project

The course Service Learning project enables you to apply what you learn to a real practice. Whether you are able to visit or volunteer with a practice in person, or explore a practice online, your Service Learning project will help the practice by sharing its story. To see example Civic Ecology student service learning projects, go to <https://civeco.files.wordpress.com/2015/12/krasny_snyder_mooc_stories_2016.pdf> (This year, we are asking you to limit your project to five pages.)

Your Service Learning project story will have four parts:

1) Title and Author
2) Brief introduction to the practice and how you became engaged.
3) Exploration of how at least two civic ecology principles apply to your practice.
4) Summary and Reflection on your service learning experience.

Please keep your project to no more than five pages. Use photos (with permission of the photographer), diagrams, and other elements to engage the reader. Send us the project as a PDF file.

If possible, engage with an actual civic ecology practice. If that is not possible, then you can write about a community garden, dune restoration, litter cleanup, friends of parks restoration project, or other civic ecology practice you find yourself or learn about from a friend.

Please start your project as early as possible so you can complete it by the 15 November deadline. You will submit your project using a Qualtrics survey link posted near the end of the course.

Note that we will hold an online workshop on December 4 to give you oral feedback on your projects. Reserve the date—we will try to accommodate all time zones. Details to follow. (We are not able to offer written feedback on student projects.)

In this document, you will find:


*Service Learning Project Template*, page 14.

*List of principles followed by guiding questions for each principle*, page 15-22.

*Summary and reflections guiding questions*, page 23.
Locating a civic ecology practice that will serve as the focus for your project.

Where possible, identify a local practice that you can visit and even volunteer with. Alternatively, you can locate a practice anywhere in the world through searching the web. Feel free to use a practice you are already engaged with.

To find a practice, search the web using key words such as “community garden,” “community tree planting,” “memorial garden,” “friends of parks,” “friends of rivers (lakes, streams, estuaries),” “friends of cemeteries,” “oyster restoration/gardening,” “dune restoration,” “volunteer invasive species removal,” “volunteer habitat restoration,” “volunteer clean up,” “volunteer community cleanup,” “litter cleanup,” “neighborhood cleanup volunteer,” “river cleanup volunteer,” “river restoration volunteer,” “parks restoration volunteer,” “trash urban restoration volunteer,” “urban environment care volunteer.” You can add a local identifier to your search.

In some countries, there may be groups that regularly engage in civic ecology practices, like LandCare groups in Australia, Nature Cleaners in Iran, and The Ugly Indian in India. County Cooperative Extension offices in the US may be helpful in identifying local stewardship efforts. Often cities have umbrella groups for community gardens, friends of parks or preserves groups, or multiple practices like the Chicago Wilderness or Bronx River Alliance.

Feel free to also pose a question to our MOOC Facebook group asking if anyone knows of any practices near where you live. You are welcome to do the service learning project collaboratively with no more than two other students in the course.

To ensure that your practice meets the criteria for civic ecology, answer the following questions.

a) Does the practice exist in a broken place? A red zone created by a sudden disaster or slow environmental decline? Note that this does not need to be a large broken place. A vacant lot or littered natural area or park can be considered a broken place.

b) Does the practice involve engagement with the natural environment (for example, restoration, clean-up, re-planting)?

c) Does the practice involve voluntary participation?

d) Did the practice emerge locally as a community response to a broken place?

If you have questions about choosing your practice, please post them on the course Service Learning Discussion and we will do our best to respond. We also will hold a webinar to answer your questions about the Service Learning project. All else fails, email us at: CivicEcology@Cornell.edu with “Civic Ecology MOOC” in the subject line.
Template

No more than five pages total. Due by NOVEMBER 15.

Title and Author

State the name of your civic ecology practice.

Give your name, city and country, and name of your organization or school.

1. Introduction
Briefly describe how you got involved in the practice, where it is located, and what the practice is about. If you can describe a practice you have engaged with or visited, that’s great. If not, describe one you have learned about through a friend or online.

2. Civic Ecology Principles
Using the guiding questions on page 3-7 below, write about how at least two principles do or do not apply to your practices. It’s fine if they partly apply but not completely—this can make your story more interesting!

3. Summary and Reflection
Provide a brief summary of what you have learned through this service learning project.
Ten Civic Ecology Principles and Guiding Principles

By applying the principles to your practice, you will be answering the following questions.

Where and why did your civic ecology practice emerge? (principles 1-2)
What are the parts of your civic ecology practice? (principles 3-7)
How does your civic ecology practice interact with larger governance and social-ecological systems? (principles 8-9)
How are scientists and policy makers helping your civic ecology practice to flourish? (principle 10)

We encourage you to cover as many principles as you can, but if you are only able to cover two principles well, that’s fine. We prefer depth to breadth (that you think deeply about a few principles rather than cover more principles without much thought). You can always return to your project and add more later on your own.

Feel free to create your story around the principles that interest you or that you find most relevant to your practice. The guidelines below are simply suggestions to guide your information collection. Collect accurate information but at the same time be creative and have fun while composing your civic ecology practice story.

**Ten Civic Ecology Principles**

Emergence: Why do civic ecology practices happen?

1. Civic ecology practices emerge in broken places.
2. Because of their love for life and love for the places they have lost, civic ecology stewards defy, reclaim and re-create these broken places.

Bricolage: Piecing the practice together

3. In re-creating place, civic ecology practices re-create community.
4. Civic ecology stewards draw on social-ecological memories to re-create places and communities.
5. Civic ecology practices produce ecosystem services.
6. Civic ecology practices foster well-being.
7. Civic ecology practices provide opportunities for learning.

Zooming Out: A systems perspective

8. Civic ecology practices start out as local innovations and expand to encompass multiple partnerships.
9. Civic ecology practices are embedded in cycles of chaos and renewal, which in turn are nested in social-ecological systems.

Policy Makers: Understanding and enabling

10. Policy makers have a role to play in growing civic ecology practices.
**Guiding Questions by Principle**

Use these guiding questions to help you think about applying the course material to a real civic ecology practice.

**Principle 1. Civic ecology practices emerge in broken places.**

- Describe the place in which the civic ecology practice is located.
- What kind of disturbance, disaster, or social, environmental and economic decline led to the practice being started?

**Principle 2. Because of their love for life and love for the places they have lost, civic ecology stewards defy, reclaim and re-create these broken places.**

- Describe any evidence of biophilia or love of life exhibited by stewards in your practice.
- Describe any evidence of topophilia, or love of or attachment to a place, exhibited by stewards in your practice.
- What motivated the stewards to start the practice?

**Principle 3. Civic ecology practices provide opportunities for learning.**

- What are participants in your practice learning?
- How are they learning through interacting with other people?
- How are they learning through interacting with their environment?
- How is what they are learning being used by the stewards in their own lives and in their practice?

**Principle 4. In re-creating place, civic ecology practices re-create community.**

- Sense of community. Does sense of community play a role in your practice? Do you see any evidence of stewards using the civic ecology practice to reestablish a sense of community that may have been lost when they moved to the city or the city changed over time through their practice? Do you see any evidence of sense of community as an outcome of the practice?
- Social capital. Does social capital play a role in your practice? Do you see any evidence of existing social capital being applied to help facilitate the practice? Do you see evidence of trust, connections or new norms being developed through the practice?
- Collective efficacy. Is the practice evidence of collective efficacy? If so, describe how social connections and the willingness of people to intervene for the public good are playing a role in the practice.
Principle 5. Civic ecology stewards draw on social-ecological memories to re-create places and communities.

What ecological or biological memories are being used in your practice (for example, remnant populations of plants or animals, soils that retain microorganism populations)?

What social-ecological memories (memories about stewarding plants, animals, and places that are shared among a group of people) are being used in your practice (for example, traditions around growing or harvesting vegetables or other plants)?

How are stewards using their social-ecological memories to inform their practice?

How are stewards forming new social-ecological memories through their practice?

Principle 6. Civic ecology practices produce ecosystem services.

What provisioning, regulating, supporting, and cultural ecosystem services are being produced in your civic ecology practice?

For each ecosystem service, how is it being produced? For example, food (provisioning service) is provided through growing fruit trees; water retention (regulating service) is provided through a rainwater garden; and soil formation (supporting service) is being provided through composting wastes. Recreation, education, and aesthetic experiences (cultural services) are being provided through improving the city park and through the actions of stewards (e.g., tree planting and pulling invasive species can be a form of education or recreation).


What physical health outcomes (e.g., reducing stress, getting exercise) do participants in your civic ecology practice experience?

What mental health (e.g., ability to concentrate, feelings of happiness, leaving a legacy, self-esteem, self-efficacy, empowerment) do participants in your civic ecology practice experience?
Principle 8. Civic ecology practices start out as local innovations and expand to encompass multiple partnerships.

What are the governance organizations at the community, city or regional, state, national, and international level with which your practice interacts?

Place these organizations into a diagram with practice at the bottom and each higher level of organization above. You can type in organizational or agency names or copy logos into the diagram.

Does your practice serve as a training ground for different civic participation skills that might be used in work with other non-profit, business, or government organizations (for example, meeting with city councilmen to present the case for a particular policy)? If so, describe how this occurs.

Here is an example governance diagram.
Principle 9. Civic ecology practices are embedded in cycles of chaos and renewal, which in turn are nested in social-ecological systems.

Here is an example adaptive cycle diagram for several civic ecology practices.

Starting with an adaptive cycle diagram provided by the course (see below), copy and paste in photos that show change over time in the social-ecological system in which your civic ecology practice is taking place.

Make sure to include the credit to Island Press included in the diagram above (don’t cut the diagram credit by trimming). If you use photos that are not your own, remember to get permission from and credit the photographer.

Describe any role your practice has played in the adaptive cycle of the social-ecological system (e.g., city or neighborhood) in which it occurs. For example, community forestry may be part of the reorganization phase in a city hit by a hurricane or economic decline.
Now you can apply panarchy to your civic ecology practice. Here is an example panarchy diagram for oyster restoration and broader climate adaptation in New York City.
Use the diagram below and cut and paste photos as per the instructions after the diagram. Make sure to include the credit to Island Press included in the diagram below (don’t cut the diagram credit out by trimming). If you use photos that are not your own, remember to get permission from and credit the photographer.

Using the panarchy diagram provided by the course, add photos from your adaptive cycle of the CEP into the middle of three adaptive cycle loops.

Fill in the lower loop with photos of the people involved. Have they suffered hardship that led to a radical change in their lives (e.g., war in their home country led them to become refugees in the US)? Change or hardship would correspond to the release phase of the adaptive cycle. Have they recovered at least in part? Recovery would correspond with the reorganization phase of the adaptive cycle.

Create steward and revolt text boxes to add any further explanations.

Using the panarchy diagram with the two lower cycles populated with text and photos, populate the upper loop with information about governance institutions and ecosystems that interact with your practice. Does your practice influence levels higher up? Is its ability to be effective constrained by policy makers or the larger ecosystem?

Create revolt, remembrance, governance, and ecosystem text boxes to add further explanations.
Principle 10. Policy makers have a role to play in growing civic ecology practices.

- How do the civic ecology stewards collaborate with scientists to conduct research on or measure the outcomes of their practices?
- How do stewards adapt or change their practices based on what they have learned from measuring their outcomes?
- How do stewards interact with other organizations? How has their practice grown through collaborations with other organizations?
- As they have worked with government and larger non-profit or business sector organizations, have they been able to expand without sacrificing the spirit, commitment, and enthusiasm that provided the initial impetus for the practice?
Summary and Reflection

Provide a brief summary of what you have learned through this service learning project. You can use the questions below in reflecting on what you have learned and how you may have changed.

- What are the activities that make up the civic ecology practice?
- How did I engage in the practice?
- How did I collect the information for this story?
- What was the most important thing that I learned?
- What will I do differently as a result of my participation in the practice?

Note: These Summary and Reflection questions about your service learning project have been adapted from Guidelines for Reflective Writing: http://www.scribd.com/doc/13949636/Reflection-Guidelines and the DEAL model developed by Dr. Patti Clayton of North Carolina State University. https://static1.squarespace.com/static/51a00182e4b00ebfe3c66f62/t/522645cbe4b05edb50d791a6/1378239947935/DEAL+Model+for+Critical+Reflection.pdf
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