

RE-WILDING HARVARD

FAS History 1973/GSD SCI 6375

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In fall, the class will meet Wednesdays, 3-5 pm EST.

Harvard College exists on land original to the Massachuseuk people,

land also visited and used by other Indigenous people,

all of whom conserved the area's natural resources.

Harvard developed these resources.

Over time, western science has identified reasons

why conservation may have been the better idea.

This course offers you a way to enter Harvard's physical space—even at a distance. It is a year-long class on rewilding, returning a place to a likely earlier form. Students will research historical and cultural definitions of wilderness and landscape, identify what pre-colonialist environments were like in New England, survey how such places have been and might be restored, learn the science of ecosystem restoration, and collaborate on a plan to rewild part of Harvard, most likely in front of the Museum of Natural History on Oxford Street, as an outdoor exhibit. The class is open to graduate students and undergraduates in a broad range of disciplines. It represents the first year in a multi-year project to restore several earlier states within the landscapes Harvard now possesses.

Every culture in the world has traditions that conserve and even restore natural resources. The scale of such projects has expanded over time. Within Europe, attempts to preserve timber and arable soil go back to the middle ages; recreating "wilderness" became an aesthetic preference for European gardens in the eighteenth century; preserving large wilderness areas began in the late nineteenth century, notably in the United States. Recently, some wildlife biologists have urged massive preservation or restoration of wild landscapes, perhaps up to 50 percent of the planet.

And yet there are serious questions about the feasibility of such plans and their implications for social justice. Earlier failures of rewilding have led to controversy. Designation of wilderness areas has a long history of inflicting their costs on working, Indigenous, or non-European peoples. Rewilding has been defined, troublingly, as if any human presence in the natural world is malign or (somehow) optional. Given these histories, rewilding should now also be done in places where its proponents live and work, not only somewhere "out there," and it should prompt awareness of a landscape's first claimants, in Harvard's case, the Massachuseuk and other Indians. One positive outcome of that experience at Harvard would be questioning a culturally exclusive sense of command over the natural world, as with a manicured Yard with introduced plants, surrounded by pavement, devoid of its Indigenous people. And, ethically, rewilding projects should serve larger societal goods, such as fostering insect pollinators that are critical to agriculture and food security.

This course is designed as an experiment—or a set of experiments. The coming academic year overlaps with the first year in the UN Decade of Ecosystem Restoration (2021-30), intended to contribute to a battery of efforts to restore ecosystems throughout the world, including our small project. The necessary scale of rewilding projects is still unknown. Must they be extensive and spatially continuous? Or would smaller, discontinuous spaces have comparable benefit? Within Harvard's built environment, smaller spaces are available and therefore worth experimenting with.

COURSE STRUCTURE

The class will be organized as a collaborative seminar. It will host frequent visits by relevant experts and Harvard stakeholders. We will meet (on Zoom) for two hours every other week in both fall and spring semesters. For course credit, a student must enroll in and complete assignments for both halves of the class.

GOALS

1. Learn the history and cultural meanings of landscape design, ecosystem restoration, rewilding.

2. Learn the scientific foundations of rewilding.
3. Learn how to collaborate on landscape design/restoration projects.
4. Help generate a rewilding plan.
5. Put yourself into Harvard as a physical place, despite the current circumstances. This is a multi-year project—when it's possible to do so, you are always welcome to come see how the project is progressing and to visit the site whose plan you helped to develop.

ASSIGNMENTS

1. Attendance and participation in class discussions on Zoom. You are not required to turn on your camera or mic; you can participate via Zoom's chat function (30% of grade).
2. 500-word prospectus (15%), due 5 pm, October 9.
3. Research Task I (15%), due 5 pm, December 9.
4. Research Task II (15%), due 5 pm, February 12.
5. Completion of your assigned portion (TBD week of Feb. 22-26) of the final rewilding plan (25%), due 5 pm, Apr. 16.

If you wish to meet either of the professors in office hours, please email us to set up a time. Prof. Chaplin will meet students at <https://harvard.zoom.us/j/5865792444> and Prof. Moreno Mateos at <https://harvard.zoom.us/j/3237564749>. We can also arrange joint meetings with both of us.

We want to acknowledge that, at this time, so much of our lives is disrupted and unsettling. Please tell us if you need help. If a link to a reading doesn't work, if your Internet is misbehaving, if your family needs you, if your availability changes—stuff like that isn't your fault and won't be held against you.

(Among the readings listed below, William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York, 1983), is not available online. It sells for \$12 new, less if used, and is freely available in hundreds of libraries.)

SCHEDULE

Fall

Sept. 9: Into the Wild (Joyce E. Chaplin)

OED, see under: "wild," "wildness," "wilderness."

William Cronon, "The Trouble with Wilderness"; or, Getting Back to the Wrong Nature, in *Uncommon Ground: Rethinking the Human Place in Nature* (New York: W. W. Norton, 1995), 69-90.

Ramachandra Guha, "Radical American Environmentalism and Wilderness Preservation: A Third World Critique," *Environmental Ethics*, 11 (1989): 71-83.

Dolly Jørgensen, "Rethinking Rewilding," *Geoforum*, 65 (Oct. 2015): 482-88.

Sept. 23: New England's Nature (JEC)

Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants* (Minneapolis, 2013), 1-10.

Lisa Brooks, mapping *The Common Pot*.

John Josselyn, *New-England's Rarities Discovered* (London, 1672), 41-87.

E. K. Faison, D. R. Foster, W. W. Oswald, B.C.S. Hansen, and E. Doughty, "Early Holocene Openlands in Southern New England," *Ecology*, 87 (2006) 2537-47.

Oct. 7: Rewilding's Basics (David Moreno Mateos)

Dave Foreman, *Rewilding North America: A Vision for Conservation in the 21st Century* (Washington: Island Press, 2004), ch. 8.

David Johns, "History of rewilding: ideas and practice," in *Rewilding*, ed. Nathalie Pettorelli, Sarah M. Durant, and Johan T. du Toit (Cambridge: Cambridge University Press, 2019), 12-32.

David Nogués-Bravo, Daniel Simberloff, Carsten Rahbek, and Nathan James Sanders, "Rewilding is the new Pandora's Box in conservation," *Current Biology*, 26 (2016), pp. R87-R91.

Johan T. Du Toit, "Pleistocene rewilding: an enlightening thought experiment," in [Rewilding](#), 55-72.

Oct. 9: write a 500-word prospectus in favor of rewilding. This short assignment is designed to teach you how to write a grant proposal. Your prospectus should have: a clear argument or point; citations to relevant parts of the literature we've read. Please submit your paper on Canvas by 5 pm.

Oct. 21: Colonial New England Landscapes (JEC)

William Cronon, *Changes in the Land: Indians, Colonists, and the Ecology of New England* (New York, 1983).

Henry David Thoreau, [Walden; or, Life in the Woods](#) (Boston, 1854), "The Bean-Field," and "Spring."

David R. Foster, "Thoreau's Country: A Historical-ecological Perspective to Conservation in the New England Landscape," *Journal of Biogeography*, 29 (2002): 1537-55.

Benjamin Goulet-Scott, dir., ["Urban Wilds of the Arnold Arboretum"](#) (and see species list posted on Canvas). Ben will join us for part of class.

Nov. 4: Going Deeper into Ecology (DMM)

Steve Carver, "Rewilding through land abandonment," in [Rewilding](#), 99-122.

Andrea Perino, Henrique M. Pereira, Laetitia M. Navarro, N  stor Fern  ndez, James M. Bullock, et al., "Rewilding Complex Ecosystems," *Science*, 26 Apr 2019, vol. 364, Issue 6438.

Jens-Christian Svenning, Michael Munk, and Andreas Schweiger, "Trophic rewilding: ecological restoration of top-down trophic interactions to promote self-regulating biodiverse ecosystems," in [Rewilding](#), 74-98.

John D.C. Linnell and Craig R. Jackson, "Bringing back large carnivores to rewild landscapes," in [Rewilding](#), 248-79.

Nov. 18: Pollinators (JEC)

James Crall (Harvard OEB/Arnold Arboretum) and Nicholas Dorian (Tufts Pollinator Initiative) will join us today.

Simon G. Potts, Vera Imperatriz-Fonseca, Hien T. Ngo, Marcelo A. Aizen, Jacobus C. Biesmeijer, et al., "Safeguarding Pollinators and Their Values to Human Well-being," *Nature*, 2016, Vol. 540 (7632), 220-229.

[Tufts Pollinator Initiative](#)

Leithen K. M     Gonigle, Neal M. Williams, Eric Lonsdorf, Claire Kremen, "A Tool for Selecting Plants When Restoring Habitat for Pollinators: Selecting Plants for Pollinator Restoration," [Conservation Letters](#), 10 (2017), 105-111.

Week of Nov. 30-Dec. 3: no class. Please work on Research Task I, consulting with the professors during this time

Dec. 9: For Research Task I, consult the resources compiled and posted by Ray Angelo, [Harvard University Herbaria](#), review other of our readings that have discussed possible rewilding plants, and compose a list of five indigenous New England plants, including three grasses or forbs, that you think could be used for our project; briefly explain the plant's relevant qualities and cite the source where you found it. Please submit your list on Canvas by 5 pm.

Spring

Week of Jan. 25-29: The Harvard Complex (JEC)

Prof. William (Ned) Friedman, Director of the Arnold Arboretum, will join us today.

Virginia Scott Jenkins, [The Lawn: A History of an American Obsession](#) (Washington, DC, 1994), 9-33.

Frederick Law Olmsted, "Foreign Plants and American Scenery," Oct. 24, 1888, in *Writings on Landscape, Culture, and Society*, ed. Charles E. Beveridge (Washington, DC, 2015), 641-45.

Pablo Campos, Richard Guy, Paul Venable Turner, "Human Imprint and Spatial Projection. An Interpretation of the Evolution of Paradigms of University Architecture as Inhabited Landscapes: Quadrangle, Yard, and Campus," *Space and Culture* (May 2020).

Week of Feb. 8-12: the Human Side of Rewilding (DMM)

Nicole Bauer and Aline von Atzigen, "Understanding the factors shaping the attitudes towards wilderness and rewilding," in *Rewilding*, 142-64.

Cecily Maller, Laura Mumaw, and Benjamin Cooke, "Health and social benefits of living with "wild" nature," in *Rewilding*, 165-81.

Susan Clayton, "The psychology of rewilding," in *Rewilding*, 182-200.

Feb. 12: for Research Task II, search [Hollis Images](#), [the Library of Congress](#), and [Digital Commonwealth](#) for historic maps and images of Harvard's grounds (whether near or far from Harvard Yard). Using at least three relevant images or maps, write a 500-word summary of or argument about a noteworthy development in Harvard's landscape history, citing course readings as necessary. Please submit your summary on Canvas by 5 pm.

Week of Feb. 22-26: Specifics of Place (JEC)

This class will be held with Dean Nazneen P. Cooper, Assistant Dean of Campus Design and Planning.

Call up 26 Oxford Street, Cambridge MA on Google Maps"zoom in, use the satellite view, click on the associated photos, and consider the space carefully.

Please also study the time-sequence photographs of the site (posted under files on Canvas), to track daily patterns of sun and shade in the space.

We will also use this class to allocate subsections of our final rewilding plan. You will have several options: writing explanatory text, focusing on a final list of plants, recommending protocols for planting and maintenance.

Week of Mar. 8-12: Measuring and Managing Rewilding (DMM)

Prof. Jos   Maria Rey Benayas (Universidad de Alcal  , Spain) will join us today.

Aurora Torres, Nestor Fern  ndez, Sophus zu Ermgassen, Wouter Helmer, Eloy Revilla, et al., "Measuring rewilding progress," *Phil. Trans. Biological Sciences* (2018), Vol. 373 (1761).

Richard T. Corlett, "Auditing the wild: how do we assess if rewilding objectives are achieved?" in *Rewilding*, 375-85.

Marcus Owens and Jennifer Wolch, "Rewilding cities," in *Rewilding*, 280-302.

James R. A. Butler, Juliette C. Young, and Mariella Marzano, "Adaptive co-management and conflict resolution for rewilding across development contexts," in *Rewilding*, 386-412.

Week of Mar. 29-Apr. 2: Case Studies (DMM)

<https://rewilding.org/rewilding-successes-and-lessons/>

<https://rewildingeurope.com/areas/>

Apr. 16: send your section of our final plan to Prof. Chaplin by 5 pm. All plan sections will then go up on Canvas under "Files." Please read them for our final discussion.

Week of Apr. 12-16: no class"please work on your section of our final plan.

Week of Apr. 26-28: General Discussion of Draft of Final Plan.