

ARCH 225: THEORY AND DESIGN OF THE CONTEMPORARY LANDSCAPE: Ecological Practices, Interdependencies, and Designing-with a Hot World

Teaching Team:

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Progress Meetings with Teaching Team: May 18, July 6; other Office Hours by appointment (please email)

Course Logistics:

“Flipped” class format, Wednesdays 2-5 PM:

- + Asynchronous LEARN Modules and Discussion Forums are completed before class (launched Wednesdays and due Tues. night before class at 9 PM) to set up in-class learning.
- + Class hours are dedicated to active learning activities (whole class events, group and individual Assignment work sessions, and starting independent LEARN Modules)



Turenscape / Kongjian Yu, [Sponge City Project] Sanya Mangrove Park, Sanya City, Hainan Province, China (2016)

“As the land becomes impoverished, so too does the scope of [our] vision...How can we begin to move toward ecological and cultural sustainability if we cannot even imagine what the path feels like?”

Robin Wall Kimmerer, “Skywoman is falling,” in *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*

INTRODUCTION AND LEARNING OBJECTIVES

Welcome to *ARCH225: Theory and Design of Contemporary Landscape: Ecological Practices, Interdependencies, and Designing-with a Hot World*. We start the term from within a dangerously heating planet: we see unprecedented wildfires, water conflicts, resource-driven war, and populations of species (including human) whose survival and culture depends on complex, now vulnerable, ecosystems. An existential climate crisis demands that we explore some existential questions: are *all* human activities inherently harmful to life on earth? What systematic root causes and ideologies have contributed to ecological destruction and the unjust distribution of environmental risks and benefits? How might understanding human interdependencies (with other species, land, and water) strengthen design practices? What is the role of the creative imagination, art, and social solidarity in design? These are big questions, (beyond the scope of what we can move through in the course), but they are a starting point for this second-year introduction to the field of landscape architecture. We focus on landscape architecture as a mode of ecological practice, and its *potential* to contribute to critical climate change adaptation and climate justice.

This course explores *landscape thinking*, the generative concepts and strategies that come by observing, understanding, and designing-with the dynamic, human and more-than-human world. To design and build is always to negotiate with natural forces, challenging site conditions, conflicted social histories, and factors beyond one’s control. In the design of landscapes—where sites are not only the *location* but also the *subject* of design—these factors are particularly heightened. Designing the landscape involves grappling with complex biophysical and social forces, reshaping the ground, participating in flows (of water, sediment, plants, and people), all while articulating cultural ideas and forms. Composed of living organisms, designed landscapes change continuously and exquisitely, over days, years, and millennia. Landscape architecture projects are on public and often-contested land; they are entangled in many layers of socio-environmental conflicts and histories. Together, these disciplinary realities offer a potent realm of ideas and strategies for approaching design, either of the landscape, or more generally. The course asks students to draw from landscape architecture’s unique disciplinary expertise and theoretical body to engage and translate these concepts into their own modes of thinking and designing.

The legacies of settler colonialism and globalized system of industrial capitalism have produced binary thinking about humans and their role in the biophysical world. Nature has been viewed in opposition to human culture, as something to be controlled, exploited, and defended against. Land, water, other species, and humans with less power, have been seen as a machine or store – as a commodity to use up as if there were no limits. These binaries pervade contemporary texts, land-use policies, and architectural thinking, and therefore they manifest in the physical constructions that architects and landscape architects design. In recent years, the concept of the Anthropocene – the epoch in which humans physically altered the planet’s stratigraphy – acknowledges the negative impacts of this legacy. But this perspective also underplays the fundamental interdependencies between humans and the world, and the potential beneficial relationships that humans do and can have with the earth. We can learn from models of regenerative, restorative, justice-focused ecological work as guides for practice, while paying attention to how structural and historical inequities manifest in designed landscapes (like environmental racism, green gentrification, etc.) This course challenges you to explore these interdependencies, challenge anthropocentric viewpoints, and to conceive of how design practice could radically change.

We structure the term and its discussions on a set of interrelated biophysical themes – geological, hydrological, botanical, and ecological – from the ground to the water, to the plants, to how all living species interact in it all. Each biophysical theme draws our attention to different theoretical debates, design practices, design techniques, and forms of representation. Each biophysical theme raises complex issues about how human activity impacts and alters the ever-changing landscape. For example, course topics include: [geological] industrial landscape re-use, topographic manipulation, urban soil formation, geological section drawings; [hydrological] covering and uncovering of rivers, rising tides and environmental racism, water-based modeling and visualization; [botanical] modern abstraction of plants, re-wilding of urban landscapes, debates about native and invasive plants, [ecological] ecological succession, interspecies relations, and approaches to a rapidly changing climate. The course is closely integrated with and supportive

of your work in the ARCH293 2B Studio.

The overall agenda of the course is to: situate landscape architecture practice within the climate emergency, understand the ecological basis of contemporary landscape practice and mobilize landscape architectural concepts towards design thinking.

Learning Objectives of the course are to:

- + Read and evaluate contemporary debates about landscape architecture's (and associated design disciplines') implication in and response to the climate crisis through written peer discussions. These include exploring connections between global climate change, racial injustice, settler colonialism, and how these inform contemporary landscape practice.
- + Build diverse understanding of landscape architecture project types and contexts (plaza, park, infrastructure, post-industrial, desert, food production, climate and flood planning) through course material, brief writing reflections, and peer discussion.
- + Analyse contemporary landscape architecture projects and practices based on biophysical contexts and drivers, design strategy, theoretical underpinnings, and representations of change. Read and make connections between the 2022 International Panel of Climate Change (IPCC) Assessment 6 Report and landscape architecture strategies for adaptation and mitigation. Build lexicon of basic terminology related to ecological processes and ecological practices in landscape architecture.
- + Engage first-hand observation and documentation of specific plant growth, understand its multiple relationships to soil and other species. Translate plant focused studies and landscape planting techniques into your studio design work.
- + Experiment with time-based media and multi-time drawing types that record, speculate, and evoke the dynamic shifts of landscape elements over time.

LANDSCAPE OF 7 MELVILLE ST. S, CAMBRIDGE, ON, HALDIMAND TRACT

As we examine landscape as a site and design subject, the course also asks you to consider the lands that you now inhabit, have lived on, and designed in, and their complex and often-violent social and environmental histories. This spring we are all dispersed, but the campus that we're usually in has a very specific landscape history. Our building is located on the edge of the Grand River, which was the centre line for the Haldimand Tract, laid out by the Crown in 1784, and promised to the Haudenosaunee of the Six Nations (Mohawk, Oneida, Onondaga, Cayuga, Seneca, and Tuscarora) for their sole use forever.¹ Within forty years, the crown expropriated and sold off nearly 90 percent of the original tract, with negligible benefit to its Haudenosaunee landholders. Today Six Nations is the largest populated First Nation in Canada. The Six Nations Elected Council is in active litigation requesting the accounting of assets owed to the council by the Crown. Over the past two years, we have seen the movements of 1492 Land Back Lane and O:se Kenhionhata:tie in Victoria Park as well as recent calls by the Haudenosaunee Confederacy Chiefs Council to halt development in the Haldimand Tract.² The land is also the ongoing territory of Neutral and Anishinaabe peoples. You are encouraged to interrogate the layered social and ecological legacies of the past, present, and future landscape to consider your individual and collective relationships and responsibilities to them.

COURSE FORMAT & REQUIREMENTS

In this class we're experimenting with a "flipped" learning model, where rather than taking in information in a lecture format, students actively engage with course material in Asynchronous LEARN Modules. In-class time will be spent on more interactive and experiential learning activities to support the three Assignments.

Strategizing your time: We have a 3-hour official class period, with an expectation of 5-6 hours of total work time per week. Each week, you will have completed the LEARN Module ahead of class (due the

¹ See Six Nations Council, *Six Miles Deep: Land Rights of the Six Nations of the Grand River*, 2015, <http://www.sixnations.ca/SixMilesDeepBooklet2015Final.pdf>

² <https://www.landbackcamp.com/>, Dan Taekema, "Six Nations traditional government wants moratorium on development of Haldimand Tract", <https://www.cbc.ca/news/canada/hamilton/haldimand-tract-development-moratorium-1.5993081>

previous Tuesday night at 9 PM) and class hours will be used for various activities (group Assignment work, field studies, or meeting with the teaching team). In-class activities will not always take the full 3-hour class session, and so there will often be a chance to do much of the following week's module *during* class hours. I encourage you to take advantage of these class hours (plus 2-3 more) and bracket your work to establish a healthy routine.

In-class Activities and Work Sessions: In-class time will be spent in different ways. On a few occasions these will involve whole group presentations in the main lecture hall. For several sessions, in-class time will be spent on working sessions with small groups to complete Assignments. Other times we will use the full 3-hour period for field studies directed towards Assignment 2. The aim is to use this time productively and actively to complete Assignments, interact with each other, and spend time being in landscapes as an important mode of learning.

Asynchronous LEARN Modules and Discussion Forums. In seven of the 12 course weeks, you will engage LEARN Modules, reading, watching, examining the material, and then responding in Discussion Forums. The Discussion Forum is a space where you can engage, debate, and build-on the course material and your peers' ideas in an active way, while preparing for in-class group assignment activities. LEARN Modules are made available the Wednesday before they are due, and they are due on Tuesday by 9 PM. Each LEARN Module has five topic boxes that contain curated content (articles, videos, project documentation, drawings, or links):

1. Theory raises critical perspectives, debates, or arguments tied to the week's theme. +Discussion Forum
2. Orientation provides some resources in basic terms and elements of the week's theme, with a focus on Southern Ontario.
3. Practices presents design practitioners, critical precedents, and design strategies related to the week's theme. +Discussion Forum
4. Techniques introduces resources about specific landscape design techniques stemming from the week's theme.
5. Representations offers forms of representation driven by the unique challenges of the week's theme. +Discussion Forum

Discussion Forum Guidelines:

- + Three posts per Module week. In each LEARN Module there will be three Discussion Forums (under "theory", "practice," and "representation" with a Discussion Prompt. Discussion Prompts will be in red. You'll be asked to make one post per prompt.
- + Who will I be discussing with? You will be (randomly) assigned to a Discussion Group of approximately 10 students, and these groups will be shuffled twice in the semester to keep things interesting. When you log into the LEARN Module and Discussion Forums, you will automatically be connected to your Discussion Group. You can see who is in your group on LEARN, by going to Connect, then Groups.
- + Teaching Team. Your Instructor and Teaching Assistants will be rotating through the Discussion Forums three times over the semester; they may periodically participate in the discussion however the Discussion Forum is a student-led discussion.
- + Do I start a new thread? The first student in a Discussion Group to respond to the prompt will click the link, "Start a New Thread". After that all students will respond within the same thread (i.e. don't start additional new threads within a topic).
- + How long should a post be? Discussion Forum responses should be 3-5 sentences (and not much more than 5). Longer posts don't invite discussion, and here the aim is to engage with each other as much as possible.
- + What should I be writing? The most important thing here is to directly engage both the course content (the discussion prompt, the reading, or other material presented) and your peers' responses. The first student to post will respond solely to the Discussion Prompt, but each subsequent student posting will respond to the prompt as well as a peer (or peers') responses.
- + Interaction and respect. This is a space for shared learning, and so the tone must be one of respect. The aim is to connect directly with your peers. If you don't understand what they are saying, you can ask for clarification; if you think that something your peer has written is particularly engaging, comment on that and contribute to it. If you would like to challenge a peer's idea, do so respectfully, challenges should be made to ideas, they should not be made personal. The aim is to build a culture of active discussion and debate where we can all learn from each other.

- + How will this be marked? We will use **Spec Grading for the LEARN Module prompts** (see assessment for more information). To achieve a pass, each post must:
 - o Directly respond to the discussion prompt
 - o Respond to other posts in the discussion: do they engage with peers in a meaningful way? Are you simply repeating others' ideas, or are you furthering the conversation?
 - o Demonstrate engagement with course materials
 - o Be well written, appropriate in length, specific in language
- + Writing Style. This isn't formal academic writing, but it also isn't a text message with friends. Make an effort to be specific with your language and to be respectful of each other's opinions. Include outside references and links where relevant.
- + Can I add links to outside sources? Yes! Discussion Forum allows for you to include image, video, and links in your posts when relevant.

Assignments

Course assignments are meant to build a resource of knowledge about landscape precedents, design strategies, design techniques, and experiments with representing change. Each assignment will be informed by a specific research agenda, will lead to a specific drawing or deliverable, and will inform the next part. Students will submit these assignments to LEARN and share Assignments 1 and 2 with the class via Miro boards so that all can benefit from the work. You'll gain exposure to a large range of projects, drawing styles, and be able to comment on each other's research and drawings. We encourage learning from each other's work, building on, and adapting ideas.

Assignment 1: Ecological Practices: Connecting Landscape Practice in the IPCC WGII report. In this first assignment, we will explore a range of landscape architecture precedents and work to connect them to the recently released IPCC Working Group II Sixth Assessment Report and its recommendations for "Nature-based Solutions" and "Ecosystem-based Adaptations". Working in small groups and individually you will research different precedents, but develop frameworks to analyse them and create an accessible resource for all.

Assignment 2: Plants in Relation / Plants in Techniques. The assignment starts from a field visit to Cootes Paradise in the Hamilton Harbour. It will involve studying specific ecological restoration measures, and 1) looking closely at and hand drawing a plant that is relevant to your studio or research agenda: how it got there, at how it's growing, and what supports or challenges its vitality; and 2) making one annotated, digital, section drawing that shows the plant as part of an assemblage: describing relationships with other species, abiotic conditions, or ecological forces illustrating a specific design agenda or "technique".

Assignment 3: Representing Change: 1-minute Film Fest. Stemming from their research in Parts 1 and 2, students will identify and experiment with a specific challenge in the representation of specific changing landscape conditions. Students can explore specific aspects of their ongoing studio work or team up to engage other ARCH225 content. The term ends with a 1-Minute Film Fest.

SCHEDULE WK	DATE	Topic / keywords	Due (LEARN Modules and Discussion Posts due by 9 PM Tues)	Active Class Time (whole class events; group activities toward Assignment submissions; starting LEARN modules and discussions)
1	MAY 4	INTRO & GEOLOGICAL I: The Speed of Rocks <i>Theory: Deep time</i> <i>Orientation: Niagara Escarpment in Context</i> <i>Practice: Buttes Chaumont, Quarry Sites</i> <i>Techniques: Land retention</i> <i>Representation: Deep sections</i>		2:00-5:00 Introduction and Lecture (Main Lecture Hall); Assignment 1 hand out
2	MAY 11	GEOLOGICAL II: Tools of Topography <i>Theory: Terra Fluxus</i> <i>Orientation: Soil formation</i> <i>Practice: Dredge Collective</i> <i>Techniques: Terraforming</i> <i>Representation: Cloud visualization</i>	LEARN Module Geo II and Discussion Posts	2:00-4:00 Group work session: Assignment 1 (Location up to group) 4:00-5:00 Start LEARN module
3	MAY 18	HYDROLOGICAL I: Rivers, Control, Justice <i>Theory: Rain terrain</i> <i>Orientation: Hidden rivers</i> <i>Practice: Environmental justice</i> <i>Techniques: Water recharge</i> <i>Representation: Modeling water</i>	LEARN Module Hydro I and Discussion Posts	2:00-4:00 Group work session: Assignment 1 (Location up to group) 4:00-5:00 Start LEARN module + Progress Check-in Meeting 1 w/Teaching Team (Assign 1 Group).
4	MAY 25	HYDROLOGICAL II: Rising Tides & Resilience <i>Theory: Resilience</i> <i>Orient.: Hamilton Harbour Remedial Act Plan</i> <i>Practice: Sponge cities</i> <i>Techniques: Flood mitigation</i> <i>Representation: Rising currents</i>	LEARN Module Hydro II and Discussion Posts	2:00-5:00 Group work session: Assignment 1 (Location up to group)
5	JUN 1	SYMPOSIUM: Ecological Practices and Ecosystem-based Adaptation (Assign 1)	A1 DUE (May 31 @ 9PM)	2:00-5:00 (Main Lecture Hall) Assignment 2 hand out
6	JUN 8 (PV away)	FIELD STUDY: Cootes Paradise Fish Ways, Forest, Wetland, Prairie Practices (Basis for Assignment 2)	1 Hr. Prep for field trip	Depart at 1:00, return at 5:30 PM. Preliminary work on Assignment 2.
7	JUN 15	BOTANICAL I: Learning from Plants <i>Theory: Abstraction and plant form</i> <i>Orientation: Tree ID</i> <i>Practice: Oberlander, Burle Marx</i> <i>Techniques: Planting Post-Wild</i> <i>Representation: Growth over time</i>	LEARN Module Bot I and Discussion Posts	2:00-5:00 Independent Work Session: Assignment 2
8	JUN 22	GUEST: Cultivating Complexity (TBC)	A2 DUE (Jun 21 @ 9PM)	2:00-5:00 (Main Lecture Hall) Assignment 3 hand out
9	JUN 29	BOTANICAL II: The Planetary Garden <i>Theory: Fourth Nature</i> <i>Orientation: Secret Life of Plants</i> <i>Practice: Oudolf, Blanc</i> <i>Techniques: Phytoremediation</i> <i>Representation: Plant associations</i>	LEARN Module Bot II and Discussion Posts	2:00-4:00 Group work session: Assignment 3 (Location up to group) 4:00-5:00 Start LEARN module
10	JUL 6	ECOLOGICAL I: Disturbance Thinking <i>Theory: Design with Nature</i> <i>Orientation: Succession</i> <i>Practice: Patch Dynamics</i> <i>Techniques: Disturbing</i> <i>Representation: Drawing succession</i>	LEARN Module Eco I and Discussion Posts	2:00-4:00 Group work session: Assignment 3 (Location up to group) 4:00-5:00 Start LEARN module + Progress Check-in Meeting 2 w/Teaching Team (Assign 3 Group)
11	JUL 13	ECOLOGICAL II: Climate Imaginaries for a Just Transition <i>Theory: Design and a Just Transition</i> <i>Orientation: Mitigation measures</i> <i>Practice: Heat work</i> <i>Techniques: Drawing down</i> <i>Representation: Climate mapping</i>	LEARN Module Eco II and Discussion Posts	2:00-5:00 Group work session: Assignment 3 (Location up to group)
12	JUL 20	CONCLUSION: One-Minute FilmFest (Assign 3) <i>Presentation of A3 projects</i>	A3 DUE (July 19 @ 9 PM)	2:00-5:00 (Main Lecture Hall)

ASSESSMENT

	%	Due
LEARN Modules and Discussion Forums	40%	(individual using spec grading, see below)
Assignment 1: Ecological Practices / IPCC	25%	(group 5%, individual 20%)
Assignment 2: Plants in Relation	15%	(individual)
Assignment 3: Representing Change	20%	(individual or group of up to 3)

Spec Grading for LEARN Modules

Forty percent of this course is marked on consistent and engaged participation with the LEARN Modules and Discussion posts, and for these, we will be using a grading method called “specification grading”.³ The basic idea is that you decide what your grade (for this 40%) is going to be and then participate to that end. This method is meant to increase student agency (by offering routes to achieve certain grades), to reduce the anxiety that both students and faculty experience with the assignment of numerical grades, and to encourage students to focus on learning and less on grades. Each assessment is pass/fail; criteria for passing a discussion post are listed above. Any late or missing task/element or one that doesn’t meet the accepted level would receive a grade of “fail.”

There are 7 weeks with three discussion posts each week, so 21 in total. The following chart shows you what grade you would receive for the number of posts passed out of 21:

Posts “passed”	11	12	13	14	15	16	17	18	19	20+
LEARN module grade (out of 40% final course grad)		<70	72	74	76	78	80	82	84	86+

Late Work. Assignments that are handed in late will receive an initial penalty of 5% on the first calendar day late and a 5% penalty per calendar day thereafter. After 5 calendar days, the assignment will receive a 0%.

Only in the case of a justified medical or personal reason will these penalties be waived, and only if these have been officially submitted to the Undergraduate Student Services Co-Coordinator and accepted by the Undergraduate Office.

Students seeking accommodations due to COVID-19, are to follow Covid-19-related accommodations as outlined by the university here: (<https://uwaterloo.ca/coronavirus/academic-information#accommodations>).

READINGS & RESOURCES (all links and documents are included in course LEARN Site)

Weekly Modules will include a wider range of readings, videos, drawings, and other resources. A selection of these resources is included here and are subject to change.

WK1 Introduction / Geological I

Robin Wall Kimmerer, “Skywoman Falling”, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*, Milkweed Editions, 2013. p. 3-10.

Additional

Jane Hutton. “Substance and Structure I: The Material Culture of Landscape Architecture,” *Harvard Design Magazine*, 36, 2013, pp. 116-123.

WK2 Geological II

Eyal Weizman Interview (w/Jeffrey Kastner, Sina Najafi) “The Wall and the Eye”, *Cabinet Magazine*, 9, 2002/03, https://www.cabinetmagazine.org/issues/9/kastner_najafi_weizman.php

Kofi Boone, “Racialized Topography as generative design tool: community design in situations with inequitable land patterns,” CELA 2010. <https://vimeo.com/11807115>

Maya Lin on Topography, Smithsonian Art Museum, 2016, (15 min)

³ Linda Nelson, *Specifications Grading*, <https://styluspub.presswarehouse.com/browse/book/9781620362426/Specifications-Grading>

Christophe Girot (ETH) on Point Cloud Modeling the Alpine Landscape (12 min)

Jill Desimini & Charles Waldheim, "Cross-Section," *Cartographic Grounds: Projecting the Landscape Imaginary*, Princeton Architectural Press, 2016, p. 177-195. [drawings]

Suppl.

Simon Bell. "Landform Patterns and Processes" in *Landscape: Pattern, Perception, and Process*, Routledge, 2012, pp. 143-179.

Stephanie Carlisle and Nicholas Pevsner, "The Performative Ground: Rediscovering the Deep Section," *Scenario Journal: 02 Performance*, Spring, 2012. <https://scenariojournal.com/article/the-performative-ground/>

Kofi Boone, "Black Landscapes Matter," <http://groundupjournal.org/black-landscapes-matter>, Issue 06: Of Process.

Peter Petschek, "Landform" and "Site Grading 101", *Grading for Landscape Architects and Architects*, Birkhauser, 2008

Jeff Lowenfels and Wayne Lewis, "Classic Soil Science, Bacteria, Fungi," *Teaming with Microbes: The Organic Gardener's Guide to the Soil Food Web*, Timber Press.

Astrid Zimmerman, "Ground Modeling and Earthworks," *Constructing Landscape: Materials, Techniques, Structural Components*, Birkhauser, 2008.

WK3 Hydrological I

Majora Carter, Sustainable South Bronx, Ted Talk (17 mins)

There's Something in the Water, 2019 (Film Trailer, 1 min 50 sec)

Walter Hood, "Find the River" talk, 2011 (11 min 6 sec)

Dilip Da Cunha and Anu Mathur, "In the Terrain of Rain," Bengal Institute, 2015, (7 min).

Suppl.

Dilip da Cunha, "Preface" and "Introduction: River Literacy", in *The Invention of Rivers: Alexander's Eye and Ganga's Descent, Forthcoming*, (University of Pennsylvania Press, 2018), p. ii-vi, 1-14.

Ingrid Waldron on Africville and the history of environmental racism in Canada, 2020, Globe and Mail

David Harvey, 1996, "The Environment of Justice" in *Justice, Nature, and The Geography of Difference*.

Third Coast Atlas: Prelude to a Plan (Ibanez, Lyster, Waldheim, White)

Walter Hood, *Urban Diaries*, 1997 (excerpt)

Brown and Storey, Garrison Creek Demonstration Project, 1994

WK4 Hydrological II

Autumn Pelletier, Water Protector. "Water Protector Autumn Peltier speaks at UN," CBC News, September 28, 2019. <https://www.youtube.com/watch?v=OusN4mWmDKQ&t=67s>

Dani Kastelein, *We Belong with the Water*, 2020, Graphic Novel. University of Waterloo M.Arch Thesis. (Defense Committee: J. Hutton, MP Macdonald, A. Levitt, A. Judge).

Kongjian Yu, "The Big Feet Aesthetic and the Art of Survival," *Architectural Design*, 2012.

Kongjian Yu talk about the Healing the Consequences of Urbanization, UrbanNext, South Asian Center, South Asian Institute (4 min 37 sec)

Bay Area: Resilient by Design Competition Website, see "Meet the Projects"

Suppl

Michael Ezban, "Depicting Aquaculture Landscapes", in *Aquaculture Landscapes: Fish Farms and the Public Realm*, Routledge, 2019.

Nina-Marie Lister. Resilience beyond Rhetoric in Urban Landscape Planning and Design. In: George F. Thompson, Frederick R. Steiner and Armando Carbonell (eds) *Nature and Cities: The Ecological Imperative in Urban Design and Planning*. Cambridge, MA: Lincoln Institute of Land Policy, 2016.

Nick Estes, *Fighting for our lives, NODAPL in Historical Context*, 2017

Common Waters Exhibition (curated by UWSA M.Arch Students, in coop with the Idea Exchange), 2019

Maude Barlow on "Taking Back our Right to Water," <https://thetyee.ca/Culture/2019/10/21/Maude-Barlow-Taking-Back-Water-Right/>

WK7 Botanical I

Roberto Burle Marx Lecture: "Gardens and Ecology," 1965 in Gareth Doherty (ed) *Roberto Burle Marx Lectures, Landscape as Art and Urbanism*, Lars Mueller, 2020.

Piet Oudolf on the Lurie Garden, Directed by Tom Rossiter, 2012, (8 min 50 sec)

Teresa Gali Izard (Ed): *Regenerative Empathy: Complex Assemblages in a Shared Environment*, 2019.

Suppl.

Valerie Fraser, "Cannibalizing Le Corbusier: the MES Gardens of Roberto Burle Marx", *Journal of the Society of Architectural Historians*, June 2000, Vol. 59, No 2, pp. 180-193.

Catherine Seavitt Nordensen, "Forest Politics: Positioning the Amazon," in Exhibition Catalogue, *Brazilian Modern: The Living Art of Roberto Burle Marx*, New York Botanical Garden, 2019.

Marc Treib, "Axioms for a Modern Landscape Architecture," in Marc Treib, ed, *Modern Landscape Architecture: A Critical Review*, MIT Press, 1993, pp. 36-67.

Thomas Rainer and Claudia West, "Principles of Designed Plant Communities," in *Planting in a Post-Wild World: designing Plant Communities for Resilient Landscapes*, Timber Press, 2016.

WK9 Botanical II

Ron Finlay, "A guerilla gardener in South Central LA."

Robin Wall Kimmerer, "The Three Sisters" in *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teachings of Plants*, Milkweed Editions, 2013. p.128-139.

Suppl.

Sonja Duempelmann, "Planting Civil Rights: Street Tree Plant-Ins in New York City," *Landscape Architecture Magazine*, Dec. 2015, pp. 116-124.

Fritz Haeg, *Edible Estates*.

Kees Lokman & Susan Herrington, "Gardens as Migratory Devices," *New Geographies*, 08, pp. 140-151.

Sara Zewde, "Transatlantic Memory: Material and Immaterial Design at the Valongo Wharf, Rio de Janeiro, Brazil," in J. Hutton (ed) *Landscape 5: Material Culture - Assembling and Disassembling Landscape*, 2017

WK10 Ecological I

Peter Del Tredici, "Spontaneous Urban Vegetation: Reflections of Change in a Globalized World," *Nature and Culture*, Dec. 2010, pp. 299-315.

Nina Marie Lister and Chris Reed, "Ecology and Design: Parallel Genealogies", *Places*, April 2014

Wenche E. Dramstad, James D. Olson, and Richard T. T. Forman. "Part I: Principles," in *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning*, 1996.

WK11 Ecological II

Donna Haraway, "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin," *Environmental Humanities*, Vol. 6, 2015, pp. 159-165.

Yu, Kongjian. "The Big-Foot Revolution." In William Saunders, ed, *Designed Ecologies: The Landscape Architecture of Kongjian Yu*, Birkhauser, 2012, pp. 42-49

Suppl.

Billy Fleming, "Design and the Green New Deal," *Places*, April 2019,
<https://placesjournal.org/article/design-and-the-green-new-deal/>

Online Resources

Landscape Journal

Journal of Landscape Architecture

Landscape Architecture Magazine (ASLA)

Landscapes/Paysages (CSLA)

Ground (OALA)
Landscape and Urban Planning Conservation Biology Ecological Applications Ecological Monographs
Landscape Ecology
Ecological Engineering Restoration Ecology
Landezine
Scenario Journal
Scapegoat: Architecture, Landscape, Political Ecology
Places Journal
The Dirt: ASLA Blog on Landscape Architecture
Landscape Performance Research, Landscape Architecture Foundation

COVID-19 Special Statement

Given the continuously evolving situation around COVID-19, students are to refer to the University of Waterloo's developing information resource page (<https://uwaterloo.ca/coronavirus/>) for up-to-date information on academic updates, health services, important dates, co-op, accommodation rules and other university level responses to COVID-19.

COVID-19 Emergency Remote Teaching-Learning Contingency for In-Class Sessions.

Live sessions will be held on MS Teams during scheduled course times. Attendance and participation in all live sessions are expected for learning and skill development.

COVID-19 Emergency Self-Isolation.

If you are unable to attend a session or meet a deliverable deadline please let Instructor know immediately. If you are facing challenges that are affecting more than one course, please contact the Undergraduate Office. In addition, if you test positive for COVID, experience COVID-like illness, or need to self-isolate, you should complete two (2) forms:

- [Self-Declared Verification of Illness Form \(VIF\) on Quest](#)
- [Campus Wellness COVID Tracking Form](#)

Student Notice of Recording

The course's official *Notice of Recording* document is found on the course's LEARN site. This document outlines shared responsibilities for instructors and students around issues of privacy and security. Each student is responsible for reviewing this document.

Late Work

Assignments that are handed in late will receive an initial penalty of 5% on the first calendar day late and a 5% penalty per calendar day thereafter. After 5 calendar days, the assignment will receive a 0%. Only in the case of a justified medical or personal reason will these penalties be waived, and only if these have been officially submitted to the Undergraduate Student Services Co-Ordinator and accepted by the Undergraduate Office.

Students seeking accommodations due to COVID-19, are to follow Covid-19-related accommodations as outlined by the university here: (<https://uwaterloo.ca/coronavirus/academic-information#accommodations>).

Mental Health Support

All of us need a support system. We encourage you to seek out mental health supports when they are needed. Please reach out to Campus Wellness (<https://uwaterloo.ca/campus-wellness/>) and Counselling Services (<https://uwaterloo.ca/campus-wellness/counselling-services>).

We understand that these circumstances can be troubling, and you may need to speak with someone for emotional support. Good2Talk (<https://good2talk.ca/>) is a post-secondary student helpline based in Ontario, Canada that is available to all students.

Equity, Diversity and Inclusion Commitment

The School of Architecture is committed to foster and support equity, diversity and inclusion. If you experience discrimination, micro-aggression, or other forms of racism, sexism, discrimination against 2SLGBTQ+, or disability, there are several pathways available for addressing this:

A) If you feel comfortable bringing this up directly with the faculty, staff or student who has said or done something offensive, we invite you, or a friend, to speak directly with this person. People make mistakes and dealing them directly in the present may be the most effective means of addressing the issue.

B) you can reach out to either the Undergraduate office, Graduate office, or Director (Anne Bordeleau). If you contact any of these people in confidence, they are bound to preserve your anonymity and follow up on your report.

C) You can choose to report centrally to the Equity Office. The Equity Office can be reached by emailing equity@uwaterloo.ca. More information on the functions and services of the equity office can be found here: <https://uwaterloo.ca/human-rights-equity-inclusion/about/equity-office>.

Academic integrity, grievance, discipline, appeals and note for students with disabilities:

Academic integrity: In order to maintain a culture of academic integrity, members of the University of Waterloo community are expected to promote honesty, trust, fairness, respect and responsibility. [Check the Office of Academic Integrity for more information.]

Grievance: A student who believes that a decision affecting some aspect of his/her university life has been unfair or unreasonable may have grounds for initiating a grievance. Read Policy 70, Student Petitions and Grievances, Section 4. When in doubt, please be certain to contact the department's administrative assistant who will provide further assistance.

Discipline: A student is expected to know what constitutes academic integrity to avoid committing an academic offence, and to take responsibility for his/her actions. [Check the Office of Academic Integrity for more information.] A student who is unsure whether an action constitutes an offence, or who needs help in learning how to avoid offences (e.g., plagiarism, cheating) or about "rules" for group work/collaboration should seek guidance from the course instructor, academic advisor, or the undergraduate associate dean. For information on categories of offences and types of penalties, students should refer to Policy 71, Student Discipline. For typical penalties, check Guidelines for the Assessment of Penalties.

Appeals: A decision made or penalty imposed under Policy 70, Student Petitions and Grievances (other than a petition) or Policy 71, Student Discipline may be appealed if there is a ground. A student who believes he/she has a ground for an appeal should refer to Policy 72, Student Appeals.

Note for students with disabilities: AccessAbility Services, located in Needles Hall, Room 1401, collaborates with all academic departments to arrange appropriate accommodations for students with disabilities without compromising the academic integrity of the curriculum. If you require academic accommodations to lessen the impact of your disability, please register with AccessAbility Services at the beginning of each academic term.

Turnitin.com: Text matching software (Turnitin®) may be used to screen assignments in this course. Turnitin® is used to verify that all materials and sources in assignments are documented. Students' submissions are stored on a U.S. server, therefore students must be given an alternative (e.g., scaffolded assignment or annotated bibliography), if they are concerned about their privacy and/or security. Students will be given due notice, in the first week of the term and/or at the time assignment details are provided, about arrangements and alternatives for the use of Turnitin in this course.

It is the responsibility of the student to notify the instructor if they, in the first week of term or at the time assignment details are provided, wish to submit the alternate assignment.