

ARCH 225: THEORY AND DESIGN OF CONTEMPORARY LANDSCAPE ARCHITECTURE / Draft 200505

Teaching Team:

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(Sign up for Office Hours on Course Learn Site links)

Time and Platforms:

The official course time is Wednesday 10:00 AM-1:00 PM EST, however the course will be run with a hybrid synchronous - asynchronous format, with some variations, See Schedule. We will use the following platforms:

- WebEx (Synchronous “Live” Sessions and Symposia, WK 1, 4, 8, 12)
- LEARN (Asynchronous Course Content / Discussions, WK 2, 3, 5, 6, 7, 9, 10, 11)
- TRELLO (Assignment Submission and Sharing, WK 5, 8, 12)



Gotthard Pass, Landscape Visualization and Modelling Lab, Chair of Christophe Girod, ETH Zurich

INTRODUCTION

This course introduces students to *landscape thinking*, to the generative concepts and strategies that come by observing, understanding, and designing with the more-than-human world. By necessity and design, landscape architecture reimagines and grapples with complex biophysical and social forces, reshaping the ground, re-orchestrating flows (of water, sediment, plants, and people), all while articulating cultural ideas and forms. While designed landscapes are definitively constructed – no matter how “natural” they appear – they respond to and operate within forces far beyond a designer’s control. Composed of living organisms, designed landscapes change relentlessly and exquisitely, over days, years, and millennia. Finally, landscape architecture projects exist on public and often-contested land; they are entangled in many layers of social conflicts and environmental 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.

North American settler culture bears a legacy of binary thinking about humans and their role in the biophysical world.¹ Nature has been viewed in opposition to human culture, as something to be controlled, exploited, and defended against. These binaries linger in contemporary texts, land-use policies, and architectural thinking, and therefore they manifest in the physical constructions that architects and landscape architects design. In recent

¹ See for example, Timothy Morton, *Ecology without Nature: Rethinking Environmental Aesthetics*, Harvard University Press, 2009.

² Donna J. Haraway, “Sympoiesis: Symbiogenesis and the Lively Arts of Staying with the Trouble”, in *Staying with the Trouble*:

years, an emphasis on the social construction of nature has, on the one hand, allowed us to recognize the magnitude of anthropogenic transformation (creating the geological epoch known as the Anthropocene), but also underplayed the profound interdependencies between humans and the rest of the world. This course challenges you to explore these interdependencies, question the culture – nature binary, and to think about the products of architectural design as more than objects-in-themselves. How can design work be an act of, as Donna Haraway urges, symplexis or “making with” other species and forces beyond us?²

We structure the term and its discussions on a set of fundamental biophysical systems – 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 system draws our attention to different theoretical debates, design practices, design techniques, and forms of representation. Each biophysical system 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 structured to be closely integrated with and supportive of your work in the ARCH293 2B Design Studio. Students outside of Waterloo Architecture are welcome and encouraged to join the class.

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’re on now, 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, a 900,000 acre parcel 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.³ 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. The land is also within the ongoing territory of Neutral and Anishinaabe peoples. Students are encouraged to interrogate the layered social and ecological legacies of the past and present landscape as a starting point to contribute to the future landscape.

LEARNING OBJECTIVES

The overall agenda of the course is to deepen understanding of the biophysical basis of contemporary landscape practice, and mobilize landscape architectural concepts towards design thinking. Specifically, the learning objectives are to:

- Read and evaluate seminal theoretical debates in contemporary landscape architecture through written peer discussions.
- Analyse contemporary landscape architecture projects and practices on the basis of biophysical contexts and drivers; design strategy; theoretical underpinnings; detailed techniques; and representations of change.
- Build lexicon of basic terminology related to natural processes and ecological practices in landscape architecture.
- Visualize and translate landscape architecture techniques from a precedent study so that it can be applied to studio design work or other research.
- Explore drawing and representation types that engage time and landscape changes.

² Donna J. Haraway, “Symplexis: Symbiogenesis and the Lively Arts of Staying with the Trouble”, in *Staying with the Trouble: Making Kin in the Chthulucene*, Duke University Press: Durham, 2016, p. 58.

³ See Six Nations Council, *Six Miles Deep: Land Rights of the Six Nations of the Grand River*, 2015, <http://www.sixnations.ca/SixMilesDeepBooklet2015Final.pdf>

COURSE FORMAT & REQUIREMENTS

In this spring of remote learning, ARCH225 is taking on an experiment. Rather than basing the class on weekly lectures and tutorials, we are doing what they call “flipped” learning, and we’re doing it in a “hybrid synchronous and asynchronous” format. “Flipped” learning means that rather than taking in information in a lecture, students will actively engage with it by reading, watching, and discussing. The “hybrid synchronous-asynchronous” format means that we’ll have “live” sessions on certain occasions, but most of the time, class content will be offered through LEARN Modules and Discussion Forums and completed when convenient for students. We want to maintain a weekly rhythm of coursework and interaction within the class, but we recognize the challenges (different time-zones, irregular internet, personal commitments related to the pandemic) that we’re all facing. Mobilizing the term online will likely involve some hiccups and we welcome your feedback along the way. The course involves:

Synchronous Classes: WebEx Meetings

The class will meet four times synchronously or “Live” (WK 1, 4, 8, 12) for Introduction, Symposiums 1+2, and Conclusion, using WebEx. These sessions will be recorded for people outside of the EST time zone or who have Internet connection issues.

Asynchronous Classes: LEARN Modules and Discussion Forums

The other weeks (WK 2, 3, 5, 6, 7, 9, 10, 11), you will be able to access the course material in LEARN Modules and Discussion Forums starting at 10:00 AM EST. Each LEARN Module has five topic boxes that contain curated content (articles, videos, project documentation, drawings, or links):

1. Theory (the topic box will be named, for example: “geo-theory I”, for the week of “Geological I”) raises critical perspectives, debates, or arguments tied to the biophysical system.
2. Orientation provides some grounding in basic terms and elements of the biophysical system, with a focus on Southern Ontario.
3. Practices presents design practitioners, critical precedents, and design strategies related to the biophysical system.
4. Techniques introduces specific landscape design techniques stemming from the biophysical system.
5. Representations offers forms of representation driven by the unique challenges of the different biophysical systems.

Each week, you will engage these weekly LEARN Modules, reading, watching, examining the material, and then responding to the three weekly prompts in the Discussion Forums. For each discussion prompt, you are asked to make two responses. This means you are responsible for making six discussion posts per week. The Discussion Forum is meant to be a space where you can debate, propose ideas, and analyse the course content and your peers’ ideas in an active way. Because we can’t be in the same physical space, the Discussion Forum offers a smaller-group conversation. You will be (randomly) assigned to a Discussion Group of approximately 9 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.

Length and Writing Style of Discussion Responses: Discussion Forum responses should be roughly 3-5 sentences (and not much more than 5), and focused towards making a single point that directly engages the course material as well as other student posts. The first student in a Discussion Forum will respond to the prompt, and subsequent responses in the thread will engage with prior posts (at least one) and the course material. Longer posts don’t invite discussion, and here the aim is to engage with each other as much as possible. 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. While the Discussion Forum doesn’t allow for image uploads, you may want to include web-links to share in your posts when relevant. Your Instructor and Teaching Assistants will be rotating throughout the Discussion Forums throughout the semester;

they may periodically participate in the discussion however the Discussion Forum is a student-led discussion. Discussions will be graded based on: engagement with peer comments, and engagement with course material.

Strategizing your time: Plan to spend between 3-4 hours completing each LEARN Module and responding in Discussion Forums. If you are in the EST time zone, we recommend that you complete the majority of the Module during the scheduled class hours or shortly after; while not necessary, it may help you to bracket your time in the course. To ensure there is time for back and forth discussion amongst students, please plan to make your first response to each prompt by Friday evening EST. Depending on who has contributed when you do your responses, you may be able to do your second responses at the same time, but they must be done some time before Tuesday at 10:00 PM EST the night before class.

Assignment (Parts 1, 2, 3): TRELLO board.

The term assignment is meant to provide a large resource of knowledge about landscape precedents, design strategies, design techniques, and experiments with representing change. Each part of the three-part 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 and share with the class via TRELLO image 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 others' work, building on and adapting ideas, and providing feedback through the comments section in TRELLO. **Part 1: Analysing Practice.** The first part is an in-depth study of a single landscape architecture project that focuses on the geological, hydrological, botanical, or ecological dimensions of landscape design. Analyses will foreground the biophysical dimensions of the precedent, focusing on how the project functions in relation to the particular system, and how these are manifest in the conceptualization, construction, and experience of the design. **Part 2: Translating Technique.** Students will identify a specific "technique" from their precedent project in Part 1 (or alternately from a peer's precedent project) that they would like to explore in greater depth. Ideally, this technique would be something you're interested in incorporating in your studio project or other schoolwork, and this assignment will inform that work. Students will translate text-based research into a compelling assemblage section that explores complex relations between multiple agents in the landscape. **Part 3: Representing Change.** Stemming from their research in Parts 1 and 2, students will identify a specific challenge in the representation of specific changing landscape conditions. This may involve an animated sequence of 2d drawings, or a 1-minute video. More details will be distributed in the project brief.

EVALUATION & SUBMISSIONS

	%	Due
LEARN Modules and Discussion Forums	40%	(best 7 of 8 weeks)
Assignment Part 1: Analysing Practice	20%	
Assignment Part 2: Translating Technique	20%	
Assignment Part 3: Representing Change	20%	

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>).

SCHEDULE		GEOLOGICAL / HYDROLOGICAL / BOTANICAL / ECOLOGICAL	
1	MAY 13 11:30 AM– 1 PM EST	INTRODUCTION: Landscape Thinking Course introduction	<i>Sample Topics</i>
2	MAY 20	Module: GEO I: The Speed of Rocks	<i>Theory: Deep time Orientation: Landscape tectonics Practice: Buttes Chaumont Techniques: Land retention Representation: Deep sections</i>
3	MAY 27	Module: GEO II: Tools of Topology	<i>Theory: Terra Fluxus Orientation: Soil formation Practice: Dredge Collective Techniques: Terraforming Representation: Cloud visualization</i>
4	JUN 3 10 AM– 1PM EST	SYMPOSIUM I: Working in Water <u>Guests</u>	
5	JUN 10 A1 DUE*	Module: HYDRO I: Rivers, Control, Justice	<i>Theory: Rain terrain Orientation: Hidden rivers Practice: Environmental justice Techniques: Water recharge Representation: Modeling water</i>
6	JUN 17	Module: HYDRO II: Rising Tides and Resilience	<i>Theory: Resilience Orientation: Coastal systems Practice: Sponge cities Techniques: Flood mitigation Representation: Rising currents</i>
7	JUN 24	Module: BOT I: Planting Modernity	<i>Theory: Abstraction and plant form Orientation: Tree ID Practice: Oberlander, Burle Marx Techniques: Planting Post-Wild Representation: Growth over time</i>
8	TUESDAY JUN 30 10 AM– 1 PM EST	SYMPOSIUM II: Cultivating Life <u>Guests</u>	
9	JUL 8 A2 DUE*	Module: BOT II: The Planetary Garden	<i>Theory: Fourth Nature Orientation: Secret Life of Plants Practice: Oudolf, Blanc Techniques: Phytoremediation Representation: Plant associations</i>
10	JUL 15	Module: ECO I: Disturbance Thinking	<i>Theory: Design with Nature Orientation: Succession Practice: Patch Dynamics Techniques: Disturbing Representation: Drawing succession</i>
11	JUL 22	Module: ECO II: Climate Imaginaries for a Just Transition	<i>Theory: Design and a Just Transition Orientation: Mitigation measures Practice: Heat work Techniques: Drawing down Representation: Climate mapping</i>
12	JUL 29 10 AM– 1 PM EST A3 DUE*	CONCLUSION <i>Presentation of A3 projects</i>	

*Assignments Parts 1 and 2 are due by 10:00 PM EST on Tuesday evenings before class.

READINGS & RESOURCES

Weekly readings and resources are integrated into the LEARN Modules. A selected list of these readings is included here, and subject to change.

WK1 Introduction

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

Elizabeth Kolbert, "Enter the Anthropocene: Age of Man," in *Making the Geologic Now: Responses to Material Conditions of Contemporary Life*, edited by Elizabeth Ellsworth and Jamie Kruse (Brooklyn: Punctum Books, 2012), 28-32. http://www.geologicnow.com/1_Kolbert.php

Suppl.

John Stilgoe, "What is Landscape?: Introduction", in *What is Landscape?*, MIT Press, 2015. p. 1-14

WK2 Geological I

Robert Smithson. "Frederick Law Olmsted and the Dialectical Landscape," *Artforum*, 1973. pp. 117-128.

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

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/>

Suppl.

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

WK3 Geological II

James Corner. "Terra Fluxus," in Charles Waldheim, ed. *The Landscape Urbanism Reader*, Princeton Architectural Press, 2006, pp. 54-80.

Seth Denizen, "The Eighth Approximation: Urban Soil in the Anthropocene", MLA Thesis, University of Virginia, 2013.

Suppl

William Moorish, *Civilizing Terrains: Mountains, Mounds, and Mesas*. (Los Angeles : William Rees Morrish and William Stout Publishers, 1989).

David Leatherbarrow, "Cultivation, Construction, and Creativity, or How Topography Changes in Time", (also for context, "Introduction: The Topographical Premises of Landscape and Architecture") in *Topographical Stories: Studies in Landscape and Architecture*, (University of Pennsylvania Press, 2004).

WK5 Hydrological I

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.

Anne Winston Spirn. "Restoring Mill Creek: Landscape Literacy, Environmental Justice and City Planning and Design." *Landscape Research*, 2005, vol. 3, issue 3, p. 395-413.

Suppl.

Emma Mendel, "Fluid Reciprocity: Alternative infrastructure to ensure access to clean drinking water at Shoal Lake 40 First Nation," https://oala.ca/ground_issue/ground-35-edges/fluid-reciprocity-alternative-infrastructure-ensure-access-clean-drinking-water-shoal-lake-40-first-nation/

WK6 Hydrological II

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.

Pierre Belanger. "Landscape as Infrastructure", *Landscape Journal* 28 (Spring 2009): 79-95.

Suppl

Jim Burns, "The *How* of Creativity: Scores & Scoring," in *Lawrence Halprin: Changing Places*, San Francisco Museum of Modern Art, 1986, pp. 40-59.

Liat Margolis and Aziza Chaouni, "Are We Out of Water?" in *Out of Water: Design Solutions for Arid Regions*, 2015, pp. 14-27.

WK7 Botanical I

James C. Rose, "Freedom in the Garden," "Plants Dictate Garden Forms," and "Articulate Form in Landscape Design," (Reprinted from *Pencil Points*, 1938) in *Marc Treib, ed, Modern Landscape Architecture: A Critical Review*, MIT Press, 1993, pp. 66-75.

Joan Iverson Nassauer, "Messy Ecosystems, Orderly Frames," *Landscape Journal*, 1995, pp. 161-165

Suppl.

José Tabacow, "The Science of Perception", in Lauro Cavalcanti, *Modernity of Landscape: Roberto Burle Marx*, Cité de l'architecture & du patrimoine and Actar, 2011, pp. 63-68.

WK9 Botanical II

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

Martha Schwartz, "Landscape and Common Culture," and Marc Treib, Pointing a Finger at the Moon: The Work of Robert Irwin," in *Marc Treib, ed, Modern Landscape Architecture: A Critical Review*, MIT Press, 1993, pp. 260-283.

Suppl.

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

WK10 Ecological I

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

Donna Haraway, "Tentacular Thinking: Anthropocene, Capitalocene Chthulucene"; in *Staying with the Trouble: Making Kin in the Chthulucene*, Duke University Press: Durham, 2016, p. 30-57.

WK11 Ecological II

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

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.

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

Course Time Zone

All dates and times communicated in the document are expressed in Eastern Daylight Time (EDT, GMT-4).

Spring 2020 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.

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.