

MATERIAL ECOLOGIES: UNBUILDING, COMPOSTING, AND REGENERATING THE MODERN WORLD

ARCH 692: Thesis Research and Design I Studio

Instructor: Jane Mah Hutton (jane.hutton@uwaterloo.ca)

Tuesdays & Thursdays: 9:30 AM-12:30 PM, 2:00-5:30 PM EST (*some Thursday PM schedules vary)

Office Hours: email for appointment

Format, Locations (*refer to schedule, some rooms vary):

Shared workspace and library: Studio; Individual and Small group meetings: Office 313

Seminars: Ward Rm*; Pin-ups: Loft and Design at Riverside Gallery

Digital Collaboration Space: Studio Miro Board, on Teams or TBD

Reading uploads, Project Briefs, Schedules, Informal chatting: Teams

Official Project Submissions and Grades: Learn

[unbuilding] ...what happens when we take erosion, breakdown, and decay, rather than novelty, growth, and progress, as our starting points...? [Broken world thinking is]..an argument and provocation toward doing new and different kinds of research, and new and different kinds of politics...

Steven J. Jackson, "Rethinking Repair," 2014¹

[composting] "We are stuck with the problem of living despite economic and ecological ruination. Neither tales of progress nor of ruin tell us how to think about collaborative survival. It is time to pay attention to mushroom picking. Not that this will save us—but it might open our imaginations."

Anna Tsing, "The Mushroom at the End of the World"²

[regenerating] The transformation of ecologies into many systems of circulation and accumulation to serve the few is the project of settler colonial infrastructure...We suggest that effective initiatives for justice, decolonization, and planetary survival must center infrastructure in their efforts, and we highlight alimentary infrastructure—infrastructure that is life-giving in its design.

Winona LaDuke and Deborah Cowan, "Beyond Wiindigo Infrastructure," 2020³

Key Words: *material and ecological flows, material diasporas, broken world thinking, composting feminism, Right to Repair, deconstruction/demolition, material culture, material reuse, obsolescence, intangible heritage, regenerative land practices, reparations, ecological practices, socio-natures, circular economy, urban mining, curated decay,⁴ open/closed systems, environmental and climate justice, maintenance, Just Transition, Discard Studies*

¹ Steven J. Jackson, "Rethinking Repair," in Tarleton Gillespie, Pablo J. Boczkowski, and Kirsten A. Foot, eds. *Media Technologies: Essays on Communication, Materiality, and Society*, (Cambridge: MIT Press, 2014).

² Anna Tsing, *The Mushroom at the End of the World: On the possibility of life in capitalist ruins*, Princeton University Press: New Jersey, 2015, pp. 17-43.

³ Winona LaDuke and Deborah Cowan, "Beyond Wiindigo Infrastructure," *South Atlantic Quarterly*, 119:2, April 2020, pp. 243-268.

⁴ See Susan Ross, "Heritage in Reverse: Material Values, Waste, and Deconstruction" Symposium Report, Oct 26-27, 2018. <https://wasteheritageresearch.wordpress.com/symposium/>

DESCRIPTION

This Thesis and Design Research Studio supports Master of Architecture students to develop an independent thesis proposal through a series of iterative research, modeling, and design exercises. Incoming students have diverse topics, geographies, and research questions, but as a studio group we share a thematic framework to support collaborative learning and facilitate dialogue and feedback. This group, *Material Ecologies: Unbuilding, Composting, and Regenerating the Modern World*, asks students to examine their independent thesis questions through the lens of socio-ecological dynamics and material flows. Architecture is a kind of material flow: while we often pay attention to the finished product of a building, designers participate in a globalized construction industry, a constellation of material extraction sites, labor forces, and waste disposal sites. Though architecture may seem human-oriented, every construction act is a relationship with land, land caretakers, and other species, whether through harvesting of lumber, leveling of land, channeling or de-channeling of waters, honoring or dishonoring treaties. This theme asks you to consider the act of building (beyond a single building) and examine the many ecological relations that building entails. We explore the role of design, construction, and development in contemporary global social and ecological crises, as well as resistance to them. We examine contemporary theories and land practices which challenge linear, extractive systems to ask what does regenerative or reparative material practice look like?

The studio group will share a few thematic semester-long agendas and values: 1) To examine and centre the socio-ecological relations and material flows present in research inquiries (to challenge the separation between “social” and “ecological” topics and engage architecture’s “externalities”); 2) To contextualize thesis inquiries within a long environmental and social history, engaging the ongoing legacies of capitalism, colonialism and racism on land practices; and 3) To explore design creativity through materially-engaged, site-based, and ecologically-focused research and design methods. (Non-themed learning objectives are described below.) The studio’s subtitle refers to three recurring concepts which will cycle through the readings, project foci, and three stages of this thesis semester.

Unbuilding refers to the literal deconstruction of buildings and what is considered disposable, but also to examining—through seminar readings and discussions—how material flows of the modern world (including that tied to contemporary architecture) are linked to the ongoing legacies of colonization, global capitalism, ecologically unequal exchange, and ecocide. The aim is engage the so-called ‘externalities’ of construction to gain a fuller understanding of architecture’s social and ecological relations. This early phase of the semester is about gathering resources, looking extensively and intensively at your topic and asking, what has contributed to the problem that you’re looking at, and developing your research questions.

Composting refers to the literal processes of decay and transformation, but also to the acts of stewing, iterating, and reflecting required to develop research anew and in relation with others. We’ll be reading texts and exploring research methods which question assumptions about research, knowledge, and authority. Hands-on, land-engaged observation and learning will be encouraged to complement other types of research modes. This middle part of the semester is about aligning and testing research methods with your thesis question.

Regenerating refers to the potential of material and ecological practices that support many forms of life and ways of being. In the context of this studio this might involve inverting or redirecting linear material flows into circular, conceiving of the hidden/distant environmental and social consequences of material production as continuous with the work of the architect, participating in movements for change that resist systems that harm people and land, or supporting means of non-extractive, non-exploitative practice, for example. This final stage of the semester will focus on action and practice – culminating in a thesis proposal.

LEARNING OBJECTIVES

The primary objective of this studio is to support you to develop a clear and provocative thesis

question, establish specifically *how* you will engage design and its modes of representation to approach this question, and build a base of theoretical, site, and other resources to draw from during the process. More than a discrete problem-solving design exercise, thesis involves a critical engagement within and beyond the discipline of architecture. It challenges you to position a project within contemporary discourses in the field as well as to speculate about your project's relevance and role in the world at large. Specifically, the learning objectives for this studio include:

1. Developing a thesis topic and question through an engagement with design discourse and broader cultural, political, or ecological contexts;
2. Exploring and establishing a specific design research method and approach to that aligns with your question;
3. Researching and analyzing precedents, modes of design, site contexts, and theories that support your work;
4. Developing an iterative working method that integrates design, research, and writing as a creative productive feedback system; and
5. Iterative and speculative design work through various forms of representation.
6. Experiment with collaborative learning (peer feedback), creative integration of making and writing, and public engagement and communication (writing, exhibition).

COURSE REQUIREMENTS AND OBJECTIVES

Project 1a Ecosystem of Ideas (1 ½ weeks) and Project 1b Entangled Stories (2 ½ weeks). The agenda of the first project is to gather the myriad threads of your interest – these may be theoretical discourses, sites, artifacts, soil samples, historical events, time scales, key people, art works, maps, methods for making – and literally organize them (or representations of them) on a table together to understand their relations. The assignment will involve a preliminary research blitz- a first foray into the databases and sources that will feed your work, assembling a preliminary annotated bibliography, and testing various configurations of the material towards defining and refining your thesis' matters of concern. Part 1b will involve selecting an element (a material, a concept, a relationship) from Part 1a and delving deeply into it, contextualizing it in time as it changes or in space as it moves.

Project 2: (3 weeks). At mid-term, once you are a bit more grounded in the topic (and maybe have unearthed or unbuilt some preconceived assumptions), the second project is dedicated to articulating questions for your research and identifying methods or tools that you would like to use to engage those questions and testing them out.

Project 3: (5 weeks). The final project is geared towards practicing the method or tool that you've identified in Project 2. The deliverables of this phase will be highly specific based on your individual research question, topic area, design approach, and forms of representation. This phase is a chance to test the clarity of the thesis question, the robustness of your data and theoretical position, the efficacy of the design approach, so that adjustments can be made before the winter term begins.

Reading Seminars 1-4 and reflections. To establish some shared ground for the studio, we have four Reading Seminars in the first five weeks of the term around the course subtitle topics. Each week there are four readings; skim all of them and then select two to read closely. For each of these seminars write a very short (1-2 paragraphs) reflection making links between the two texts, and post before class on the Teams "Studio Discussion" channel right before class. These reflections are not graded (just yes/no) and are meant to help establish an informal and regular practice of reading/writing. Everyone will sign up to lead a 30-40 minute discussion about one of the texts. Groups can coordinate how they would like to arrange these discussions, but each leader should

provide approximately 10 minutes to introduce the text, its primary arguments, writing approach, and connections to the themes of the studio, raise questions, and then facilitate a discussion.

Student-led Seminars 1-4. As your topics gel and affinities between different students emerge, we'll have four student-led seminars. Each group will develop together and lead a seminar, selecting one text to share ahead of time with the class, that resonates with their own research but can also be helpful to the group as a whole. The group will lead a discussion on the reading but can also facilitate any form of activity/workshop that helps the class to engage the topics of the reading.

Final Submission. The final requirement for the studio is the submission of a compiled and edited Thesis Proposal document and a digital folio containing carefully documented work from Projects 1, 2, and 3, including revisions based on comments from the final review.

	%
Seminar Reading/Writing + Participation	20%
Project 1	25%
Project 2	20%
Project 3 + Final Thesis Folio + Thesis Proposal	35%

STRUCTURE, STUDIO CULTURE

Studio time is composed of whole group meetings (project handouts and reviews), Seminars (reading discussions led by students), and small group or individual meetings to discuss in progress work. In the first half of the semester, seminars will be used to discuss required readings that focus the studio's larger framework that I have curated. In the second half of the semester, these seminars will focus on readings and topics driven by student thesis topics. Some Thursday afternoons sessions will be spent working independently: these are flexible formats that might involve everyone working on a particular task and then sharing it at the end of the afternoon.

School, thesis, independent research can all be demanding and isolating on their own. One approach that I have seen work well for some students is to treat it like a job with set hours, do what you can within them and use those limits to practice making decisions that prioritize what matters most to you, and to make sure that you reserve energy and time for yourself outside of school. We have 13 hours of scheduled studio hours, and generally we will be meeting for 3-hour seminars each week, and likely around 1-3 hours of additional meetings per week. That gives you seven hours to work independently *within* studio hours, and then decide how many additional hours you want to dedicate given your other demands; if it helps, keep a time sheet. Open offline time, walking outside, connecting with loved ones, taking time to yourself are all important for well-being. I will respect the stated meeting times and class hours; I have a hard time sitting for long periods of time and need to take breaks often. Let me know if there are adjustments that I can make to support you.

We are going to be working together and discussing challenging topics, and it is important that the studio is a place where we are respectful of each other and our different experiences. At the bottom of this syllabus is an official statement from the school about equity, diversity, and inclusion and pathways to communicating problems or grievances. I thank you in advance for approaching me if I say/do something that makes you uncomfortable, or if there are specific issues you think are important that we discuss within the context of the course.

STUDIO + LAND

7 Melville Street South 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.⁵ Within forty years, the crown expropriated and sold off nearly 90 percent of the original tract, with negligible benefit to its Haudenosaunee landholders. Today, large urban centres of Kitchener-Waterloo and Cambridge and the University of Waterloo occupy this land. Six Nations is the largest populated First Nation in Canada and the Six Nations Elected Council is in active litigation requesting the accounting of assets owed to the council by the Crown. In April of 2021, the Haudenosaunee Confederacy Chiefs Council called for a Moratorium on Development in the Haldimand Tract, pending consultation with the Haudenosaunee Development Institute (HDI). Many topics that we'll be discussing in this studio are tied to Indigenous land dispossession and systemic environmental injustices; an aim of this studio is to make these ongoing relations a central concern rather than "externalities" of architecture, and to speculate about what actions can be taken in solidarity with these struggles.

⁵ See Six Nations Council, *Six Miles Deep: Land Rights of the Six Nations of the Grand River*, 2015, <http://www.sixnations.ca/SixMilesDeepBooklet2015Final.pdf>

TOPICS AND SCHEDULE

WK	Mon.	Tues.	Wed.	Thurs.	Fri.
WK1	4 SEPT.	5 SEPT Orientation	6 Semester Begins	7 P1 Introduction (Loft Gallery) AM/PM: Introductions, Workspaces	8
WK2	11	12 AM/PM: Small Group Meetings	13	14 AM: Reading Seminar 1 (Ward Rm) PM: Individual Meetings	15
WK3	18	19 P1a Interim (Loft Gallery) AM/PM: Presentation / Discussion	20	21 (* JMH Phil) AM/PM: Independent Field Studies	22
WK4	25 <i>Yom Kippur</i>	26 AM/PM: Individual Meetings	27 <i>Eid Milad ul-Nabi</i>	28 AM: Reading Seminar 2 (Ward Rm) PM: Small Group Meetings	29
WK5	2 OCT	3 AM: Reading Seminar 3 (Ward Rm) AM/PM: Small Group Meetings	4	5 P1a/b Due (Loft Gallery) AM/PM: Presentation / Discussion; hand out P2	6
WK6	9	10 READING WEEK	11 NO CLASSES	12	14
WK7	16	17 P2 Group Meeting (Ward Rm) AM/PM: Small Group Meetings	18	19 AM: Reading Seminar 4 (Ward Rm) PM: Focus session	20
WK8	23	24 AM/PM: Small Group Meetings	25	26 AM/PM: Individual Meetings (mid-term check in)	27
WK9	30	31 AM/PM: Small Group Meetings 5-7 PM Cross-TRD1 event with Faculty Supervisors	1 NOV	2 AM/PM: Individual Meetings	3
WK10	6	7 P2 Due (Loft Gallery) AM/PM: Presentation / Discussion	8	9 AM: P3 Introduction (Loft Gallery) PM: Seminar group meetings	10
WK11	13	14 AM Student-led Seminar 1 (Ward Rm) PM: Small Group Meetings	15	16 AM/PM: Individual Meetings (JMH mtl)	17
WK12	20	21 AM: Student-led Seminar 2 (WardRm) PM: Small Group Meetings	22	23 AM: Student-led Seminar 3 (Loft ; TBD) PM: Individual Meetings	24
WK13	27	28 AM/PM: Small Group Meetings	29	30 AM: Student-led Seminar 4 (Ward Rm) PM: Individual Meetings	1
WK14	4	5 <i>Last day of classes</i> AM/PM: Whole group check in (Ward Rm) Individual Meetings	6	7	8
WK15	11 P3 due 10 PM	12 Final Review TBC	13 Final Review TBC	14 **Final Studio Folio and Thesis Proposal Upload (due Monday Dec. 18)	15

READING SEMINARS & RESOURCE LIST

(All Required Readings and many Suggested Readings will be posted in the course Teams site)

Reading Seminar 1: Social-Ecological Histories: Anthropocene/Capitalocene/Plantationocene

1. Raj Patel and Jason W. Moore, "Introduction" to *A History of the World in Seven Cheap Things* (p. 3-43)
2. Roxanne Dunbar-Ortiz, "Follow the Corn," in *An Indigenous Peoples' History of the United States*, Beacon Press: Boston, 2014, pp. 15-31.
3. Janae Davis et al, "Anthropocene, Capitalocene, ... Plantationocene?: A Manifesto for Ecological Justice in an Age of Global Crises" *Geography Compass*, Volume 13: 5, 2019
4. Jane Hutton, "Inexhaustible Terrain: Guano from the Chincha Islands, Peru to Central Park, 1862," in *Reciprocal Landscapes: Stories of Material Movements*, Routledge, 2019, pp. 26-55.

Suggested

Vaclav Smil, "What Matters Most," in *Making the Modern World: Materials and Dematerialization*, John Wiley and Sons, 2014, pp. 45-75.

Kathryn Yusoff, *A Billion Black Anthropocenes or None*

Kiel Moe, "A Material History of Insulation in Modernity, (excerpt)" in *Insulating Modernism: Isolated and Non-Isolated Thermodynamics in Architecture*, Birkhauser, pp. 127-169.

Jason W. Moore, "The Capitalocene, Part I: On the nature and origins of our ecological crisis," *The Journal of Peasant Studies*, 2017, 44:3, 594-630.

William Cronon, "The Wealth of Nature: Lumber," in *Nature's Metropolis: Chicago and the Great West* (New York: WW Norton, 1991), 148-206.

Reading Seminar 2: Waste Values and Material Flows

1. Daniel M. Abramson, "Introduction," in *Obsolescence: An Architectural History*, University of Chicago Press, 2016, 12-22.
2. Max Liboiron, "How Plastic is a Function of Colonialism," *Teen Vogue*, December 21, 2018, <https://www.teenvogue.com/story/how-plastic-is-a-function-of-colonialism>
3. Jenny Foster and Heidi Schopf, "Mineral Migration: Extracting, Recomposing, Demolishing, and Recolonizing Toronto's Landscape," in *Landscript 5: Material Culture.*, Jovis Verlag: Berlin, 2017, pp. 47-63.
4. Lionel Devlieger, "Reverse Architecture – the Virtues of Unbuilding and Reassembling," in *Tabula Scripta*. Pp. 147-152

Suggested

Alison Creba, "Demolition and deconstruction legacies: Toronto's Honest Ed's and Mirvish Village," *Journal of Cultural Heritage Management and Sustainable Development*, Vol 10, no 1, 2020, pp. 52-64.

Susan M. Ross, "Re-Evaluating Heritage Waste: Sustaining Material Values through Deconstruction and Reuse", *The Historic Environment: Policy and Practice*, 2020 Vol. 11, No 2-3, 382-408.

Mark Gorgolewski, "Designing with reused building components: Some challenges," *Building Research & Information*, 2008, 36(2): 175-188.

Susan Ross, "A Bibliography on Demolition Waste and Deconstruction," *Discard Studies*, November 27, 2017. <https://discardstudies.com/2017/11/27/a-bibliography-on-demolition-waste-and-deconstruction/>

Building Materials Re-Use Association (BMRA). (2014). *Introduction to Deconstruction: A Comprehensive Training Workbook*.

Reading Seminar 3: Land and Water methods

1. Martin Hogue, "Matter: Displaced, Organized, Flattened," in *Landscript 5: Material Culture*, Jovis Verlag: Berlin, 2017.
2. Leanne Betasamosake Simpson, "Land as Pedagogy: Nishnaabeg intelligence and rebellious transformation," *Decolonization: Indigeneity, Education & Society*, Vol. 3, No. 3, 2014, pp. 1-25.
3. Anna Lowenhaupt Tsing, "The arts of noticing", "Contamination as Collaboration", "Some Problems with Scale", *The Mushroom at the End of the World: On the possibility of life in capitalist ruins*, Princeton University Press: New Jersey, 2015, pp. 17-43.
4. Miho Mazereeuw, Aditya Barve, Lizzie Yarina, "PrepHub Nepal: Disaster Preparedness and Water Security in the Public Realm," *Journal of Architectural Education*, 74:1, H2O 101-109.

Suggested

Katie Lloyd Thomas, "Feminist Hydro-logics in Joan Slonczewski's *A Door Into Ocean*," *Landscript 5: Material Culture*, Jovis Verlag: Berlin, 2017.

Donna Haraway, "Tentacular Thinking: Anthropocene, Capitalocene, Chthulucene", (excerpt) <https://www.e-flux.com/journal/75/67125/tentacular-thinking-anthropocene-capitalocene-chthulucene/>

Anna Lowenhaupt Tsing, 2005. "A History of Weediness", in *Friction: An Ethnography of Global Connection*, (Princeton: Princeton University Press), pp. 171-212.

Maria Puig de la Bellacasa, *Matters of Care: Speculative Ethics in More than Human Worlds*, Minnesota Press, 2017.

Eve Tuck and K. Wayne Yang, "Decolonization is not a metaphor," *Decolonization: Indigeneity, Education & Society*, Vol. 1, No. 1, 2012, p. 1-40

Reading Seminar 4: Taking Care

1. Shannon Mattern, "Maintenance and Care," *Places Journal*, Nov. 2018, <https://placesjournal.org/article/maintenance-and-care/?cn-reloaded=1>
2. Winona Laduke and Deborah Cowen, "Beyond Wiindigo Infrastructure," *South Atlantic Quarterly*, 119:2, April 2020, pp. 243-268.
3. Linda Tuihiwai Smith, "Introduction," "Research through Imperial Eyes," *Decolonizing Methodologies – Research and indigenous peoples*, Zed Books, 1999. Pp. 1-19, 44-59

Suggested

Zoe Todd, "Indigenizing the Anthropocene," in *Art in the Anthropocene: Encounters Among Aesthetics, Politics, Environment and Epistemology*. Heather Davis and Etienne Turpin, editors. Open Humanities Press.

The Care Collective, *The Care Manifesto: The Politics of Interdependence*, Verso, 2020.

The Red Nation, *The Red Deal: Indigenous Action to Save our Earth*, excerpts. Verso, 2021.

Kyle P. Whyte. "Indigenous Science (Fiction) for the Anthropocene: Ancestral Dystopias and Fantasies of Climate Change Crises," *Environment & Planning E: Nature and Space* 1 (1-2): 224-242. 2018.

Erik Swyngedouw, 2003. "Metabolic Urbanization: the Making of Cyborg cities." in, Swyngedouw, Erik, Heynen, Nik, and Kaika, Maria (Eds), *The Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, (New York: Routledge), p. 21-40.

Deconstruction / Material Flows

Paola Rosa-Aquino, "Fix or Toss? The 'Right to Repair' Movement Gains Ground," *New York Times*, Oct. 23, 2020. <https://www.nytimes.com/2020/10/23/climate/right-to-repair.html>

Michelle Murphy, "Alterlife and Decolonial Chemical Relations." *Cultural Anthropology* 32, no. 4: 494-503, 2017. <https://doi.org/10.14506/ca32.4.02>

Max Liboiron, *Pollution is Colonialism*. Durham, NC: Duke University Press, 2021.

Stephanie Foote, Elizabeth Mazzolini (eds), *Histories of the Dustheap: Waste, Material Cultures, Social Justice*, available online through UWaterloo Library System.

Max Liboiron, "Modern Waste as Strategy." *Lo Squaderno: Explorations in Space and Society*, no. 29 (2013): 9-12.

Douglas, Mary. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. London: Routledge & K. Paul, 1966.

Jane Bennett, 2010, "The Force of Things", "The Agency of Assemblages", in *Vibrant Matter: A Political Ecology of Things*, (Durham: Duke University Press) pp. 1-38.

Bill Addis, *Building with Reclaimed Components and Materials: A Design Handbook for Reuse and Recycling*.

Discard Studies, <https://discardstudies.com/about/>

Composting Feminisms, <https://compostingfeminisms.wordpress.com/>

Mark Gorgolewski, *Resource Salvation: The Architecture of Reuse*, Wiley, 2018.

Sally Stone, *UnDoing Buildings: Adaptive reuse and cultural memory*, Routledge: New York, 2020.

Jeff Byles, *Rubble: Unearthing the History of Demolition*, Three Rivers Press: New York, 2005.

A. Laurie Palmer, *In the Aura of a Hole: Exploring Sites of material extraction*, Black Dog Publishing.

Lucy Lippard, *Undermining: A wild ride through land use, politics, and art in the changing west*, The New Press: New York, 2014.

Land Practices / Climate Change / Environmental History

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

Jill Desimini, *From Fallow: 100 Ideas for Abandoned Urban Landscapes*, Oro Editions, 2019.

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

Anna Tsing, Heather Swanson, Elaine Gan, Nils Bubandt (Eds), *Arts of Living on a Damaged Planet*, University of Minnesota Press, 2017.

Bruno Latour, *Facing Gaia: Eight Lectures on the New Climate Regime*, Polity Press, 2015.

William Cronon. *Uncommon Ground: Rethinking The Human Place In Nature*. New York, NY: WW Norton, 1996.

Elizabeth Kolbert, *The Sixth Extinction: An Unnatural History*. New York: Henry Holt and Co., 2014.

Katrin Klingan, Ashkan Sepahvand, Christoph Rosol, and Bernd M. Scherer, eds. *Textures of the Anthropocene: Grain Vapor Ray*. Cambridge, MA: The MIT Press, 2015.

David Harvey, *Justice, Nature and the Geography of Difference*. 1 edition. Cambridge, Mass: Wiley-Blackwell, 1997.

Naomi Klein. *This Changes Everything: Capitalism vs. the Climate*. Toronto: Knopf Canada, 2014.

Diana Coole ed. *New Materialisms: Ontology, Agency, and Politics*. Durham NC ; London: Duke Univ Pr, 2010.

John McPhee, *The Control of Nature*. McPhee, John. *The Control of Nature*. New York: Farrar Straus and Giroux, 1990.

Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City*. Cambridge, Mass.: The MIT Press, 2003.

David Gissen, *Manhattan Atmospheres: Architecture, the Interior Environment, and Urban Crisis*. Minneapolis: Univ Of Minnesota Press, 2014.

J. R. McNeill and Peter Engelke. *The Great Acceleration: An Environmental History of the Anthropocene since 1945*. Cambridge, Massachusetts: Belknap Press: An Imprint of Harvard University Press, 2016.

Communication

Steven Pinker, "Good Writing," "A Window onto the World," *The Sense of Style: The Thinking Person's Guide to Writing in the 21st Century*, (Allen Lane: London, 2014).

Umberto Eco, "Writing the Thesis," pp. 145-184, "Conclusions" p. 221-223. *How to Write a Thesis*, (MIT Press, 2015)

COVID-19 Special Statement

Given the on-going 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.

Passing Grades. The standard minimum passing grade is 60% for all studio courses. Grades below the specified passing grade result in a course failure.

Fair Contingencies for Emergency Remote Teaching

To provide contingency for unforeseen circumstances, the instructor reserves the right to modify course topics and/or assessments and/or weight and/or deadlines with due and fair notice to students. In the event of such challenges, the instructor will work with the Department/Faculty to find reasonable and fair solutions that respect rights and workloads of students, staff, and faculty.

CACB Student Performance Criteria. The BAS/MArch program enables students to achieve the accreditation standards set by the Canadian Architectural Certification Board as described here:. This course addresses the CACB criteria and standards that are noted on the Accreditation page of the School of Architecture website.

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 (DirectorArchitecture@uwaterloo.ca). 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>.

D) [Racial Advocacy for Inclusion, Solidarity and Equity \(RAISE\)](#) is a student-led Waterloo Undergraduate Student Association (WUSA) service launching in the Winter 2019 term. RAISE serves to address racism and xenophobia on the University of Waterloo campus with initiatives reflective of RAISE's three pillars of Education and Advocacy, Peer-to-Peer Support, and Community Building. The initiatives include but are not limited to: formal means to report and confront racism, accessible and considerate peer-support, and organization of social events to cultivate both an uplifting and united community. You can report an incident using their [online form](#).

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 their 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 their 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](#).

In general, you are required to undertake work that you represent as yours by yourself, without copying or adapting work by other, with the exception of work that you derive from others and in turn credit to those others. 'Others' includes AI tools. All work derived from others must be appropriately cited.

AI Policy: Permitted in this Course with Attribution: In this course, students are permitted to use Generative AI Tools like ChatGPT and Midjourney to support their work. In order to maintain academic integrity, students must disclose any AI-generated material they use and properly attribute it. This disclosure should include AI generation whether in whole or part, including images, designs, in-text citations, quotations, and references.

The full extent of images and text passages should be cited. The following statement in assignments may be used to indicate general use of a Generative AI Tool: "The author(s) acknowledges the use of [Generative AI Tool Name], a model developed by [Generative AI Tool Provider], in the preparation of this assignment. The [Generative AI Tool Name] was used in the following way(s) in this assignment: [indicate, e.g. grammatical correction, gathering sources, generating specific images, etc.]."

Caution: When using AI tools, it is important to be aware that the user data supplied might be utilized for training AI models or other purposes. Consequently, there is no guarantee that the information you provide will remain confidential. Instructors and students should exercise caution and avoid sharing any sensitive or private information when using these tools. Examples of such information include personally identifiable information (PII), protected health information (PHI), financial data, intellectual property (IP), and any other data that might be legally protected.

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.