

THIS CHANGES EVERYTHING: 'DESIGNING-WITH' A MORE-THAN-HUMAN WORLD

ARCH 692: Thesis Research and Design I Studio

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Tuesdays: 9:30 AM-12:30 PM, 2:00-5:30 PM

Office Hours by appointment.

"It is slowly dawning on a great many of us that no one is going to step in and fix this crisis; that if change is to take place it will only be because leadership bubbled up from below."¹

– Naomi Klein, *This Changes Everything*

"*Sympoiesis* is a simple word; it means "making-with." Nothing makes itself; nothing is really autopoietic or self-organizing. In the words of the Inupiat computer "world game," earthlings *are never alone*...*Sympoiesis* is a word proper to complex, dynamic, responsive, situated, historical systems. It is a word for worlding-with, in company."²

–Donna Haraway, *Staying with the Trouble*

"...As both posthumanist and Indigenous theorizing suggest, we take steps and chart paths in relation to and alongside a multiplicity of beings at all times. The exciting and challenging task ahead involves walking and talking the world into being pluriversal. A world in which the multiplicity of living beings and objects are addressed as peers in constituting knowledges and worlds."³

–Juanita Sundberg, "Decolonizing Posthumanist Geographies"

INTRODUCTION

This thesis studio borrows its title and emphases from three sources: an activist journalist (Naomi Klein), a science and technology theorist (Donna Haraway), and a movement of scholars theorizing *homo sapiens'* relationship to the contemporary world. In her 2014 book, *This Changes Everything: Capitalism Vs. the Climate*, Naomi Klein argues that the floods, droughts, humanitarian crises, migrations, and fires that climate change has delivered, are the manifestation of capitalism's destructive material processes supported by ideologies of a cheap, external, and unlimited nature. This planetary change is catastrophic and undeniable; and yet it is denied because to resist the factors that fuel climate change is to resist our current economic model. As her book title suggests, climate change changes "everything," not only because it wreaks socio-ecological havoc, but also because in order to confront it, we have to actually change the world. Klein posits climate change as a nightmare that paradoxically – through global social movements of resistance and radical changes in the ways we think and build – could catalyze profound social and economic change. "Designing-with" is a play on Donna Haraway's writings about the concept *sympoiesis*, or "making-with." Haraway argues that in the face of contemporary crises, rather than succumbing to either techno-faith or all-out cynicism, we need to make-with, collaborate, combine with other species and forces, to become "less-deadly, more response-able, more attuned, more capable of surprise, more capable to practice the arts of living and dying well."⁴ And finally, the term "more-than-human," (not "human" nor "nonhuman"), implies the necessary entanglement and co-production of humans with a cacophony of other beings and their worlds. It is a term that reflects the interests of a contemporary movement of scholarly assemblies (new materialism, post-humanism, and speculative realism, to name a few), diverse yet united in challenging worn-out (and arguably climate changing)

¹ Naomi Klein, *This Changes Everything: Capitalism vs. the Climate*. New York: Simon & Schuster, 2014, p. 465.

² Donna J. Haraway, "Sympoiesis: 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 Juanita Sundberg, "Decolonizing Posthumanist Geographies," *cultural geographies*, Vol 21(1) 33-47, 2014. P. 42

⁴ Haraway, 2016, p. 98.

anthropocentric and Eurocentric dualisms of human/nature, mind/body, and self/world. This broader movement asserts: how we conceive of our relationship to all that is more-than-us determines how we exploit, extract, plan, and for our purposes, how we design new ways of living and being.⁵

As the work of Klein, Haraway, and the new materialists suggest, our time of unprecedented planetary change requires, but also enables, such radical shifts in thinking and acting. As people, cities, and nations confront differential risks associated with planetary change, they rally around, as sociologist Bruno Latour conceives it, “matters of concern” the disputable, durable, concerns of profound importance.⁶ This collective focus opens up the possibility for meaningful transformation – and this studio leans on this imminent potential.

Drawing from these discourses, this studio focuses on how designers conceive of, grapple with, and make projects within bewildering environmental change. To design and build is always to negotiate with forces, materials, people, and species beyond ourselves. And because designers tend to want to control most things, these “outside” forces are often considered a problem, an upset to an idealized plan. Yet these negotiations – if taken as inevitable, real, and constitutive of living in a more-than-human world – are an opening for new ways of seeing and making. Rather than understanding architecture as the shaping of an inert and deferential world, what happens when we see ourselves as contiguous with and dependent upon an active, vital, one? How might “designing-with” shape the very way we understand site, construct and approach a problem, invent and apply design tools, act in solidarity with social movements, and evaluate a project’s relevance? More broadly, this studio asks, how does architecture interact with all that is more than itself? What relationships do designers have with matter, with landscapes, and with other species, and how might questioning these inform new ways of building and co-existing?

Climate change is offered not as a thesis topic, but as a meta-term, one that arguably enshrouds matters of concern of all types and scales, but also as a framework for thinking about all change associated with entwined biological, geological, and social worlds. While some students in the studio may wish to address “climate change” as a specific concept and problematic, most will likely identify concerns that are far more discrete and precise, yet still extend beyond themselves. The thesis topics that may resonate with this studio are unlimited; but the following keywords may suggest a range of interests that might resonate strongly: risk and resilience, de-commodification of nature, accidental parkland, emergent ecologies, indigenous perspectives, science-fiction futures, new approaches to disaster, biophilia, sponge cities, urban political ecology, material culture. Just as a broad spectrum of thesis topics is encouraged, countless formats are encouraged, including field-based inquiries, material experimentation, speculative future scenarios, and partnerships with activist groups, other fields, or other stakeholders (human or otherwise).

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 requires 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. Ultimately, the aim of this semester is to chart a stimulating and productive course of work towards the completion of the Masters thesis.

This work will include:

⁵ See, William Connolly, “The ‘New Materialism’ and the Fragility of Things.” *Millennium - Journal of International Studies* 41, no. 3 (2013): 399–412.

⁶ Bruno Latour, “Spinoza Lecture II: The Aesthetics of Matters of Concern,” in *What is the Style of Matters of Concern*, Van Gorcum, 2008, p. 39.

- Developing a thesis question through an engagement with design discourse and broader cultural, political, or ecological contexts;
- Establishing a specific design method and approach to address this question;
- Researching and analyzing precedents, modes of design, site contexts, and theories that support your work;
- Developing an iterative working method that integrates design, research, and writing as a productive feedback system; and
- Iterative and speculative design work through various forms of representation.

Finally, this studio encourages you to consider your thesis as something that can live beyond your final presentation – as a publication, future design collaborations, or the basis of a future practice.

STRUCTURE

The thesis process involves several challenges which are useful to acknowledge up front: to seek and absorb large amounts of new information while honing in on a precise topic; to engage open-ended experimentation while staying focused on a pressing schedule; and to iterate productively between research, writing, and making. The studio's assignments, seminars, reviews and peer discussions are organized to guide the class in taking on these challenges together, while supporting the diverse trajectories of individual thesis projects. While the schedule may adjust to the needs of the group as the semester gets underway, each Tuesday morning, we will meet as a group for a seminar. In the first third of the semester, these seminars will be used to discuss required readings that focus the studio's larger framework. In the second third of the semester, these seminars (potentially bi-weekly) will focus on individual student projects. For student-led seminars, students will circulate a text that is key to their project, lead a discussion about it, and present their ongoing thesis research. The time will allow for the entire studio to focus on that particular project, provide feedback, and identify synergies within the class. In the final third of the semester, seminars will address particular studio needs. Rather than thinking of the thesis as a linear trajectory from research to design, this studio is organized as an ongoing iterative dialogue between research, design, and writing. The semester is divided into four discrete projects that alternate between more research-focused (Projects 1 and 3) and more design/making-focused activities (Projects 2 and 4). Brief summaries of the projects follow; handouts will be given out in class. While these descriptions are geared towards design theses, projects descriptions will address students doing both design and written theses.

Project 1: Matters of Concern (1 ½ weeks + 1 week). 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. By probing and indexing all of the seemingly divergent realms of your interest in one place, it is possible to perform a rigorous and iterative thought experiment: How do these pieces relate, connect, and generate unexpected ideas in their adjacency and overlapping? The assignment will involve library, field, and archival research (depending on your interests), assembling a preliminary annotated bibliography, and testing various configurations of the material towards defining and refining your thesis' matters of concern.

Project 2: Experiments in Design Methods (3 weeks). The second project is dedicated to testing *how* you might wield design and forms of representation in relation to your thesis topic and question. This will involve identifying and analyzing a set of precedents or models of ways of working, and then translating them into a set of carefully designed 3-d experiments. The emphasis will be on models and other 3-d media, but some students' projects may specifically call for 2-d media. The aim of this project is think about design not as a final response to a protracted research phase, but rather as very specific and intentional actions that are in intense dialogue with the thesis topic.

Project 3: Illustrated Thesis Proposal/Syllabus (3 ½ weeks). The third project involves refining your thesis question, identifying and locating the most relevant data sources (whether archives, interviews, field work, GIS, policy documents, or theoretical texts) for your project, and developing an illustrated, draft thesis proposal through sequential writing exercises. The thesis proposal will take the form of an extended syllabus and position paper: including an abstract, literature and precedent review, position on design approach, preliminary diagrams and site research, schedule, and bibliography. This studio will encourage students to consider their thesis writing as the makings for a single, pithy, provocative, and potentially publishable essay (or other format for dissemination). The proposal will outline the scope of work for the semesters to come, and will be revised for the final submission.

Project 4: Design Thesis Pilot (4 weeks). The fourth project is geared towards developing an aspect of your Illustrated Thesis Proposal from Project 3, through relevant drawings and models, for the Final Review with guest critics. The deliverables of this phase will be highly specific based on the student's 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, such that productive adjustments can be made before the winter term begins.

Final Submission. The final requirement for the studio is the submission of a revised thesis proposal from Project 3 (incorporating feedback from the Final Review), and a digital folio containing carefully documented work from Projects 1, 2, and 4.

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Seminar Participation + Presentation	10%
Project 1: Matters of Concern	15%
Project 2: Experiments in Design Methods	20%
Project 3: Illustrated Thesis Proposal/Syllabus	25%
Project 4: Design Thesis Pilot + Final Thesis Folio + Thesis Proposal	30%

SCHEDULE*

1	SEP 05 (Wed)	AM: TRD1 Presentation	SEP 06	AM: Introduction / P1 Hand out (WR**) PM: Meetings / Work Session (313)
2	SEP 10 (Mon.)	AM: Reading Seminar 1 (WR) PM: Meetings / Work Session (313)	SEP 13	AM/PM: Meetings / Work Session (313)
3	SEP 18	PROJECT 1a Due (Loft Gallery)	SEP 20	AM/PM: Meetings / Work Session (313)
4	SEP 25	AM: PROJECT 1b Due/P2 Hand out (WR) PM: Reading Seminar 2 (WR)	SEP 27	AM/PM: Meetings / Work Session (313)
5	OCT 2	AM: Reading Seminar 3 (WR) PM: Meetings / Work Session (313) [OCT 1, GIS Workshop (to be confirmed)]	OCT 4	AM/PM: Meetings / Work Session (313)
6	OCT 9	Study Day – no class	OCT 11	AM/PM: Meetings / Work Session (313)
7	OCT 16	PROJECT 2 Due [Mid-Review] <i>ACM Plot deadline: Oct. 15, 9 AM</i>	OCT 18	AM: P3 Hand out (WR) PM: Meetings / Work Session (313)
8	OCT 23	AM: Student-led Seminar (WR) PM: Meetings / Work Session	OCT 25	AM: Student-led Seminar (WR) PM: Meetings / Work Session (313)
9	OCT 30	AM: Student-led Seminar (WR) PM: Meetings / Work Session	NOV 1	AM: Student-led Seminar (WR) PM: Meetings / Work Session (313)
10	NOV 6	AM: Student-led Seminar (WR) PM: Meetings / Work Session	NOV 8	AM: Student-led Seminar (WR) PM: Meetings / Work Session (313)
11	NOV 13	AM: PROJECT 3 Due / P4 Hand out (WR) PM: Meetings / Work Session (313)	NOV 15	AM: Student-led Seminar PM: Meetings / Work Session (313)
11	NOV 20	AM: Seminar, TBD (WR) PM: Meetings / Work Session (313)	NOV 22	AM/PM: Meetings / Work Session (313)
12	NOV 27	AM/PM: Meetings / Work Session (313)	NOV 29	AM/PM: Last Class / Meetings (313)
13	DEC 4	No class – independent work	DEC 6	No class – independent work
14	DEC 12 - 13	P4 4 Due [Final Review] <i>ACM Plot deadline: Dec. 10, 9 AM</i>		
15	DEC 17	FINAL SUBMISSION Due		

*Schedule is subject to change

**Ward Room

REQUIRED SEMINAR READING LIST**September 10**

Manuel DeLanda, "Biological History 1000-1700" and "Biological History 1700-2000 AD", in *A Thousand Years of Nonlinear History*, Zone Books, 1997. pp. 103-134, 149-179.

Martin Hogue, "Matter: Displaced, Organized, Flattened," in *Landscript 5: Material Culture*, Jane Hutton (ed), Jovis Verlag: Berlin, 2017.

Jason Moore, "The Rise of Cheap Nature," *Anthropocene or Capitalocene: Nature, History, and the Crisis of Capitalism*, Jason W. Moore (ed), PM Press: Oakland, 2016, pp. 78-115.

Suggested

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.

Gunther Vogt, "Case Studio", *Landscape as a Cabinet of Curiosities*. p. 129-170.

September 25

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

Katie Lloyd Thomas "Feminist Hydro-Logics," in *Landscript 5: Material Culture*, Jane Hutton (ed), Jovis Verlag: Berlin, 2017.

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

Suggested

Bruno Latour, "From Realpolitik to Ding Politik: or How to Make Things Public" In *Making Things Public: Atmospheres of Democracy*, Cambridge: MIT Press, 2005, p. 4-25.

Juanita Sundberg, "Decolonizing Posthumanist Geographies," *cultural geographies*, Vol 21(1) 33-47, 2014.

October 3

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.

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

Gissen, David. "Weeds, Insects, Pigeons, Crowds, Epilogue", *Subnature: Architecture's Other Environments* by David Gissen. Princeton Architectural Press, 2009. P. 150-210.

Suggested

Richard P. Well & Lauren B. Allen, "Preface to a Genealogy of the Postnatural," in *Land & Animal & Nonanimal*, Anna-Sophie Springer and Etienne Turpin (eds), Intercalations 2: K. Verlag, 2014, pp. 75-101.

Adam Bobbette, "We All Live in the Wrong Place: Thinking Beyond Resilience in Volatile Environments," in *Landscript 5: Material Culture*, Jane Hutton (ed), Jovis Verlag: Berlin, 2017.

SUGGESTED READING LIST

- Diagrams of Power, Exhibition, Curated by Patricio Davila (runs until Sept. 29), OCAD Offsite Gallery, <https://www2.ocadu.ca/news/diagrams-of-power-showcases-the-politics-of-data-visualization>
- Mariano Gomez-Luque, Ghazal Jafari (eds), *New Geographies 09: Post-Human*, 2018
- 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.
- Timothy Morton, *Ecology without Nature. Ecology without Nature: Rethinking Environmental Aesthetics*. Cambridge, Mass.: Harvard University Press, 2009.
- Cronon, William. *Uncommon Ground: Rethinking The Human Place In Nature*. New York, NY: WW Norton, 1996.
- Cronon, William, and John Demos. *Changes in the Land, Revised Edition: Indians, Colonists, and the Ecology of New England*. 1 edition. New York: Hill and Wang, 2003.
- Kolbert, Elizabeth. *The Sixth Extinction: An Unnatural History*. New York: Henry Holt and Co., 2014.
- Klingan, Katrin, Ashkan Sepahvand, Christoph Rosol, and Bernd M. Scherer, eds. *Textures of the Anthropocene: Grain Vapor Ray*. Cambridge, MA: The MIT Press, 2015.
- Harvey, David. *Justice, Nature and the Geography of Difference*. 1 edition. Cambridge, Mass: Wiley-Blackwell, 1997.
- Klein, Naomi. *This Changes Everything: Capitalism vs. the Climate*. Toronto: Knopf Canada, 2014.
- 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.
- John McPhee, *The Control of Nature*. McPhee, John. *The Control of Nature*. New York: Farrar Straus and Giroux, 1990.
- Michel Serres, *The Natural Contract*. Translated by Elizabeth MacArthur and William Paulson. Ann Arbor: University of Michigan Press, 1995.
- Coole, Diana, ed. *New Materialisms: Ontology, Agency, and Politics*. Durham NC ; London: Duke Univ Pr, 2010.
- Gandy, Matthew. *Concrete and Clay: Reworking Nature in New York City*. Cambridge, Mass.: The MIT Press, 2003.
- Gissen, David. *Manhattan Atmospheres: Architecture, the Interior Environment, and Urban Crisis*. Minneapolis: Univ Of Minnesota Press, 2014.
- McNeill, J. R., 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.
- Odum, Howard. *Environment, Power, and Society for the Twenty-First Century: The Hierarchy of Energy*. New York: Columbia University Press, 2007.
- Vaclav Smil. "What Matters Most: Biomaterials, Construction, Metals, Plastics, Gases, Fertilizers, Electronics" in *Making the Modern World: Materials and Dematerialization*. (West Sussex: John Wiley & Sons, 2014). pp. 45-76.

Fridolin Krausmann, Marina Fischer-Kowalski, Heinz Schandl, and Nina Eisenmenger, 2008. "The Global Socio-Metabolic Transition: Past and Present Metabolic Profiles and their Future Trajectories," *Journal of Industrial Ecology*, 12(5/6): 637-656.

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)

ACADEMIC INTEGRITY, GRIEVANCE, DISCIPLINE, APPEALS, AND 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 1132, 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.

Writing and Communication Centre

The Writing and Communication Centre (WCC) works with students as they develop their ideas, draft, and revise. Writing and communication specialists offer one-on-one support in planning assignments, synthesizing and citing research, organizing papers and reports, designing presentations and e-portfolios, and revising for clarity and coherence.

You can make multiple appointments throughout the term, or you can drop in at the Library for quick questions or feedback. To book a 25- or 50-minute appointment and to see drop-in hours, visit uwaterloo.ca/wcc. Group appointments for team-based projects, presentations, and papers are also available.

Please note that communication specialists guide you to see your work as readers would. They can teach you revising skills and strategies, but will not change or correct your work for you.

Every second Monday from 9 a.m. - 12 p.m. in the Musagetes Library Conference Room.