

“Human beings are more important than real estate”: Environmental Justice through Affordable Housing

Course Instructors:

Adrian Blackwell (course coordinator, Monday+Thursday), adrian.blackwell@uwaterloo.ca

Cheryll Case (community integration coordinator, Monday +Thursday 1st half term),
ccase@uwaterloo.ca

Michael Bootsma, (Monday), mdbootsma@uwaterloo.ca

Anwar Jaber (Monday+Thursday), anwar.jaber@uwaterloo.ca

Marie-Paule Macdonald (Monday+Thursday), mpmacdonald@uwaterloo.ca

Di Tang, (Monday and Thursday 2nd half term), di.tang@uwaterloo.ca

Tura Cousins Wilson (Thursday), tura@socadesign.ca

Teaching Assistants:

Laila Mourad, l2mourad@uwaterloo.ca

Madeleine Reinhart, mrreinhart@uwaterloo.ca

Laura Leone Yamin Woodall, llywoodall@uwaterloo.ca

Class hours: Monday and Thursday, 9:30-12:30, 1:30-5:30

Class location: Third Year Studio and online MS Teams

Office locations: Various, Schedule by e-mail



Folkstone Terrace, Jerome Markson, Bramalea, 1973.



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Ad for townhouses in Bramalea, Toronto Star, 1971

Territorial Acknowledgement

We acknowledge that the School of Architecture is located on the traditional territory of the Neutral, Anishinaabeg and Haudenosaunee peoples. The University is situated on the Haldimand Tract, the land promised to the Six Nations that includes 10 kilometers on each side of the Grand River. The studio site is in Brampton, which is part of the Treaty Lands and Territory of the Mississaugas of the Credit and has been populated by Indigenous peoples for thousands of years, including the Anishinabek, Huron-Wendat, Haudenosaunee Ojibway/Chippewa peoples and Metis peoples; and most recently, the territory of the Mississaugas of the Credit First Nation who are direct descendants of the Mississaugas of the Credit. This studio is centrally concerned with the rights of all people to affordable housing, environmental justice, and equity. On the studio site, ongoing issues of disparity were initiated through violent processes of European colonization that included the displacement of indigenous peoples from the lands that sustained them in North America and Africa. These processes also brought non-European African and Asian people to North America to work in slavery and indentured servitude. Within this studio we will struggle to recognize and respect the traditional territory of Indigenous people, and consider ways to address the systemic bias that still organizes Canadian urban spaces, in order to design a more ecologically sound and economically sustainable home for all people.

Course Description:

*human beings are more important than real estate*¹

James Baldwin, “Nothing Personal”

In the conclusion of his 2021 book *On Property*, theorist of Black Diaspora, Rinaldo Walcott, quotes James Baldwin–“human beings are more important than real estate”–to underline the importance of all human beings, over the speculative potential of land, to argue for the necessity of abolishing racism, sexism, and classism inherent within capitalist housing markets. Walcott points out that abolition of police, prisons, and property, is a creative and imaginative project, of developing caring relations to the world, and especially to land as the foundation of all forms of life.²

The goal of this studio is to practice applying concepts of environmental justice and human rights to housing through urban design and architecture. As part of this practice, you will be asked to examine the ways in which the current housing industry in the studio site of Brampton conflicts with environmental injustice and human rights. The integration of community leaders to provide context and share feedback on research and design work within

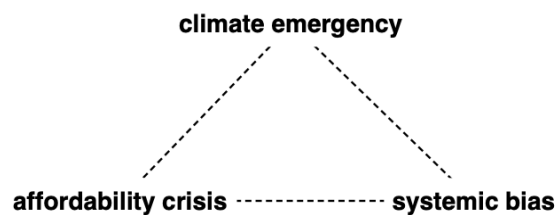
¹ James Baldwin, “Nothing Personal” in *James Baldwin: Collected Essays*, Toni Morrison ed. (New York, Literary Classics of the United States, 1998), 704.

² Rinaldo Walcott, *On Property* (Toronto: Biblos, 2021),

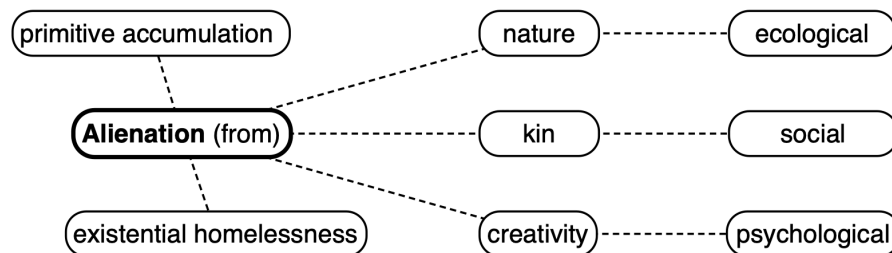
the studio ensures the mutual benefit of practical learning and the development of local capacity to address the challenges and opportunities identified in this studio.

Environmental Justice and Triple Alienation

This studio, which focuses on the design of housing in the large Canadian city of Brampton, sits at the intersection of three wicked problems: a climate emergency, an affordability crisis and systemic racism. The first is a crisis in our planet’s ability to support life. The climate emergency, in which our capitalist form of life produces an ever-increasing quantity of carbon dioxide, leads to extreme changes in climate and weather patterns of the world, and the mass extinction of different forms of life. The second is a crisis of affordability, in which a small number of people capture a larger and larger percentage of the world’s wealth, while most people struggle to get by on a declining share of resources. The third explains the logic of exploitation in the Eurocentric capitalist world system, which has undervalued the human dignity of non-European racial and cultural communities. Within the studio you will be asked to examine the ways in which the current housing industry contributes to these three related emergencies and to find ways of designing housing that can overcome them.

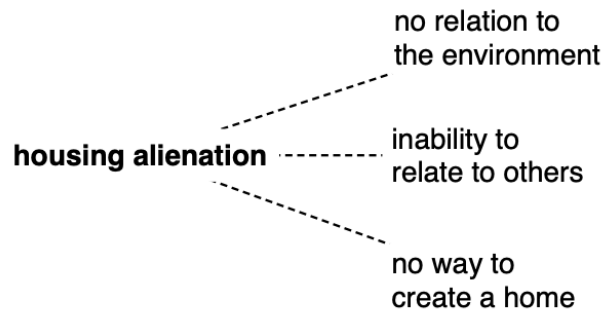


These three problems have their origins alongside the birth of capitalism in a long and still ongoing historical process called “primitive accumulation,” during which the enclosures of common fields in Europe pushed peasants from their farms to labour in factories, colonialism enacted a physical and cultural genocide on Indigenous peoples, removing them from the valuable land that once sustained them, and the Atlantic slave trade, brought African people to labour on plantations in the Americas. These different processes produced a triple alienation of existential homelessness: people were separated from the environment that surrounded them and on which they relied for the food, shelter, and fuel; they were torn from their communities and families; and finally they were separated from the products of their creative activity.

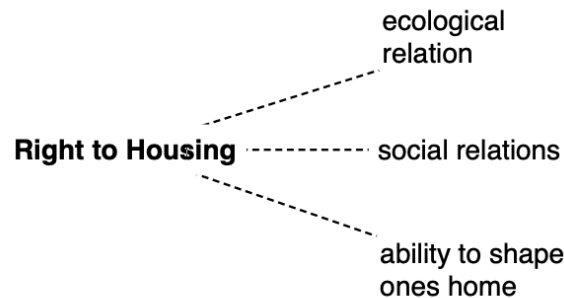


Without a place in which to feel at home, we cannot survive in contemporary society. One form of alienation is *residential alienation*. At one extreme it appears as homelessness, but it also

emerges as overcrowding, fear of eviction, as subjection to non-responsive landlords and exorbitant rents. Even so-called homeowners carry mortgages that lock them into overwork, limiting their time for culture, connection, and creativity; thus risking foreclosure if they fail to make payments.³ This separates humans from their ecological and social world and from the ability to make housing according to their cultural and community needs.⁴ This alienation is fundamentally tied to housing’s status as an *alienable* commodity, whose exchange value comes to dominate its use value.



Housing has always served three essential functions: modulating humans’ relationship to their environment, shaping an intimate space of sociality, and acting as a crucial site for the exercise of creativity. In this studio, our aim is to propose models of inclusive space at three scales: the neighbourhood, the building, and the home, that reconnect people to the psycho-socio-ecological milieu that they inhabit, suturing the metabolic circuits which have been severed by contemporary building processes, to establish environmental justice.



Environmental Justice is not primarily an academic or theoretical concept. It was introduced as a call from social movements dissatisfied with the lack of awareness around systemic bias within mainstream environmental movements. Since the late 1970s the Environmental Justice activists have pointed out that the environmental health effects that contemporary capitalism has produced, are spatially organized to impact poor and marginalized members of society. The term originates in the work of sociologist and planning professor Robert Bullard and lawyer Linda McKeever Bullard in a case they fought to prevent a landfill in an African

³ Ibid.

⁴ See David Harvey, “The Right to the City” in *Rebel Cities: From the Right to the City to the Urban Revolution* (London: Verso, 2012), 4. For philosopher Henri Lefebvre, “the right to the city manifests itself as a superior form of rights: right to freedom, to individualization in socialization, to habitat and to inhabit. The right to the oeuvre, to participation and appropriation (clearly distinct from the right to property), are implied in the right to the city.” see Henri Lefebvre, “The Right to the City” in *Writings on Cities*, Eleonore Kofman and Elizabeth Lebas eds. (Oxford: Blackwell, 1996), 173-174.

American neighbourhood in Houston, by showing that landfill sites were overwhelmingly located in Black neighbourhoods and that this constituted discrimination according to civil rights law. Robert Bullard continued this research, to try to discover how widespread this bias was across the US South, publishing a study that provided the systemic nature of environmental racism in 1990.⁵

As you set about designing *affordable* housing according to principles of environmental justice, the question you should be asking is: what does this housing *afford* as an environment for its inhabitants? The concept of *affordance* was first raised by psychologist James J. Gibson and defined by him in 1966. “I mean simply what things furnish, for good or ill.”⁶ All environments furnish opportunities for their inhabitants' actions, positive and negative. Some provide these in rigid, punitive and even life-threatening forms, others afford ecological and social connections and possibilities for poetic world-making. In this studio you will be trying to imagine how urban design and housing can expand the possibilities for human life, by considering housing as a human right.

Housing is a Human Right

Internationally recognized contemporary understandings of human rights were born in response to an awakening of nation-states organized to help end World War II. In 1942, the United Nations was formed - 6 years later, in 1948 (5 years after the end of World War II) this international institution published the Universal Declaration of Human Rights. This document acknowledges that “all human beings are born free and equal in dignity and rights”. Articles of Declaration include that people of all racial/sexual/age etc. identities have the right to adequate of housing. The right to adequate housing includes the right for this housing to reflect the cultural interests of its inhabitants. These are key considerations for the setting Brampton.

As a signatory of the Declaration, Canada and Ontario have their own documents describing their jurisdictional responsibilities in protecting human rights. To guide housing policy, in 2011 Ontario included in the Provincial Policy Statements that planning policies must be consistent with the Ontario Human Rights Code. This addition was made as a direct response to court challenges brought from non-profit groups who saw that cities were implementing housing plans that infringed on the human rights of people with disabilities. In 2019, Federal Parliament passed the National Housing Strategy Act, and acknowledged that “the right to adequate housing is a fundamental human right affirmed in international law.”⁷

Historically, and often still in the present, architects and planners often do not implement a critical lens to address the systemic challenges that have limited housing access for lower income and marginalized communities. Their methods often approach challenges as though they are neutral - further entrenching the systems of marginalization. In this course, we will

⁵ Robert D. Bullard, *Dumping in Dixie: Race, Class, And Environmental Quality* (Milton Park: Routledge, 2018 [1990])

⁶ James J. Gibson, *The Senses Considered as Perceptual Systems* (London: George Allen & Unwin Ltd., 1966), 285.

⁷ Human Rights-Based Approach to Housing | Place to Call Home

explore these intersections: the existence of direct, indirect, and systemic discrimination that shape relationships to land. This includes the structures, policies, and economies that implement them. The goal of this is to use this knowledge to then propose models of inclusive space at three scales: the neighbourhood, the building, and the home, to establish a healthier psycho-socio-ecological environment for residential habitation.

Studio Site: the City of Brampton

The City of Brampton was settled by Europeans in the early 1800s and designated a city in 1974. Over the period of 1853 to 2011, Brampton’s population grew from 500 to 523,911 in 2011 - making it Canada’s second fastest growing and the 9th largest city⁸. The City is also one of Canada’s largest hubs of “visible minorities”. The 2016 Census identified that over $\frac{3}{4}$ of the population identifies as a race other than White. The largest group being South Asians who represent almost half of the population, and the second largest being Black who represent roughly one sixth⁹. 4,330 Indigenous people lived in the City at the time of the 2016 census.

Despite its growth and racial diversity, the City has remained squarely within the colonial tradition of undervaluing environmental justice or human rights to housing. One example of this is that basement apartments were illegal until they were mandated as legal by the Province of Ontario in 2010 by Ontario Bill 140 - Strong Communities through Affordable Housing Act 2011¹⁰. This is despite South Asian households having greater interests for basement housing - as to accommodate their extended family housing preferences and lower incomes (when compared to White people).

The city provides a valuable case study in suburban development. The building types which dominate the Brampton urban landscape are typical of suburban developments in the Greater Toronto Area (GTA): suburban single-family homes, rowhouses, apartment towers on large lots, strip malls, regional malls, mid-rise office buildings, and single-story warehouses. The studio site encircles Bramalea City Center, which is the historic 50-year-old political and economic center of Bramalea. This environment is a typical form of suburban development in the GTA. Higher density development is built next to the regional mall to allow pedestrian access, so the sites you will be addressing include a large percentage of high-rise apartments, condominiums, and townhouse developments. These housing types house a higher percentage of renters, and lower income households, than other less dense parts of Brampton. The Bramalea City Center is slated for redevelopment in the Vision 2040 planning document for Brampton and its redevelopment is shown in images as a large cluster of high-rises on podiums, typical of contemporary development in the GTA.

⁸ City of Brampton | About Brampton

⁹ Census Profile, 2016 Census - Brampton, City [Census subdivision], Ontario and Ontario [Province] (statcan.gc.ca)

¹⁰ Brampton completes review of secondary unit policy after one year, proposes changes | Toronto.com



Bramalea New Town Concept looking from the southwest, *Living the Mosaic, Brampton 2040 Vision*, May 2018

So the site and the studio will offer a set of typical urban challenges that you will encounter in different sites in southern Ontario, and North America.

Community Integration

The studio will contribute research on housing to the work of local Peel region organizations—Indus, Roots, and Boys and Girls Club of Peel, and Centre Francophone Du Grand Toronto. These organizations are committed to supporting social equity by improving the ability for lower income households to access and thrive in affordable housing to lower income households anti-bias and equity in their work. Representatives from these organizations will meet with the class to describe their constituents' housing needs, their visions for supporting social equity in housing, and review to give feedback on the urban projects developed by the students.

These organizations have a long history of engaging in Peel and the City of Brampton to promote the development of affordable housing. This includes advising on planning processes, providing affordable housing and engaging in studies to increase their capacity to provide affordable housing. As of recently, their work also includes participating as community partners in the CMHC funded study Network Roadmapping for Redevelopment Plans to Confront Systemic Racism. Within this program, stewarded by CP Planning, these community organizations are developing a safe space for community organizations and allies to understand housing disparities and to develop strategies to increase affordable housing security and access.

Indus, Roots, Boys and Girls Club of Peel, and Centre Francophone Du Grand Toronto will have access to use materials produced and submitted as part of the studio to support their advocacy for affordable housing.



3 studio sites around Bramalea City Center

Project:

The challenge of this studio is to 1) analyze the context, 2) design an urban project, and 3) design a housing complex, in Brampton, one of the most culturally diverse cities in the world. This urban project is an opportunity to design in a context that responds to the value of environmental justice and human right to housing as to offer healthier ecological, social and cultural relationships.

Toward this end the studio will address the site through two intertwined lenses:

- 1) Social: Consider the economic, cultural, and social interests of the people who live in the community, and the people who will live on the site. Aim to create an urban environment that enables a vibrant and affirmative public realm, that resists gentrification, while promoting the development of positive social relationships.
- 2) Ecological: Consider the intensive and extensive energetic and material flows within the web of life and non-life, considering 1) the differential thermal, light, and sonic energies of the site and the varied ambiances these produce, 2) material life cycle impacts and qualities of the biotic and abiotic materials used, and the sites from which they have been extracted and transported.

Learning Objectives:

The course will allow students to develop skills and competencies in the following:

Key Concepts:

1. Concepts of environmental justice as they relate to the design of urban space and housing
2. Concepts of human rights within the planning and design process
3. Critical thinking about how the existing process of planning, architecture and development contributes to climate emergency, the housing crisis and systemic bias

Urban Analysis

1. The analysis of urban morphology
2. The analysis of Architectural typology
3. An understanding of the actors involved in shaping the physical and programmatic form of urban spaces.
4. The guidelines and legislations that structure the relationships between buildings and urban space.
5. Representation of urban space and the relationship between buildings of varying scale, including an emphasis on figure ground, section and energy diagramming.

Environmental Justice

6. Ecological planning strategies for urban design
7. Urban and architectural design to encourage healthier social, economic, and cultural relationships
8. Design of environmental performance of buildings as it relates to: Embodied carbon and energy of specific material assemblages, their material life cycles and potential to participate in a circular economy. Operational carbon and energy, using passive heating and cooling strategies, including thermally active surfaces

Housing Design:

9. The design of multiple unit housing
10. Housing unit design
11. Accessible design

Evaluation:

Each assignment throughout the term will be assessed on the following basis:

1. Ability to address the key concepts of the studio
2. Quality of research that supports the development of the proposal
3. Artistic experimentation in architecture and urban design
4. Technical understanding of the systems involved in the design
5. Process of design development
6. Precision and craft of physical artifacts created.
7. Clarity of the communication of the core urban and architectural ideas.
8. The effectiveness and the completeness of project documentation.

Studio Assignments:

1) Urban Atlas of Bramalea and Norton Park – 1.5 weeks – 15% (in groups of 4-5)

- **Digital submission due in LEARN 9:00am Thursday January 20**

2) Housing Affordability and Affordance

a): Projecting the Urban (in Defense of Housing) – 3 weeks – 30% (in groups of 4-5)

- **Digital submission due in LEARN 6:00pm Monday February 14**

b) Tracing an Energetic Street and Building Section - 2 weeks – 5% (in groups of 2-3)

- **Digital submission due in LEARN 9:00am Monday March 7**

c) Towards an Architecture of Affordance - 5 weeks – 50% (individual work)

- **Digital submission due in LEARN 6:00pm Friday April 8**
-

Short Project Descriptions:

1) Urban Atlas of Bramalea and Norton Park – 1.5 weeks – 15% (in groups of 4-5)

- **Digital submission due in LEARN 9:00am Thursday January 20**

This atlas is a collaborative research project, designed to familiarize the class with the historical development of the sites identified in this studio through five lenses: A) Urban Morphology and Building Typology, B) The changing social landscape, C) Bias of the housing planning process, D) City planned solutions to housing insecurity, and E) Citizen managed housing solutions.

This analysis will introduce students to local patterns of urban evolution, enactors of gentrification, as well as the strategies and tools for urban design and planning that shape our understanding of place and approaches to intervention.

2) Housing Affordability and Affordance

The second project of the term will be the comprehensive design of an apartment building from its urban implications to its building organization and in relation to its embodied and operational energy requirements, on the site of your research and urban proposals in project 1. The project title addresses the fact that housing shelters life and all living matter on earth contains carbon, but it also addresses the importance of sequestering non-living carbon to mitigate climate change.

2 a): Projecting the Urban (in Defense of Housing) – 3 weeks – 30% (in groups of 4-5)

- **Digital submission due in LEARN 6:00pm Monday February 14**

Working in a new group, composed of members from each of the five research areas from project 1, continue your investigation by proposing an “urban project” in Christian Devillers’ sense of the word: an ensemble with a specific form, which draws its specificity from the analysis of existing forces of the site and urban housing ecology studied in Project 1).

Each group will be looking at several properties within one of three sites within the overall study area, on which to propose housing at three scales: 1) Low-rise up to four stories, or what has been called in the GTA, the “missing middle”; 2) mid-rise buildings up to 8-10 stories along major streets; and 3) high-rise buildings along major arterial roads and at significant intersections. Students will develop schematic designs for 4-5 typical buildings (one per student) which describe: massing, programming, a clear description of how the urban and architectural strategy supports human rights and environmental justice. Leaders from Indus, Roots, and Boys and Girls Club of Peel, and Centre Francophone Du Grand Toronto have been invited to attend the review of Project 2a.

2 b) Tracing an Energetic Building Section - 2 weeks – 5% (in groups of 2-3)

- **Digital submission due in LEARN 9:00am Monday March 7**

This is a sketch exercise. The project will not be graded based on the completed quality of the drawing. In Project 2b you will begin by researching a specific construction material and/or material assembly. You will then test and exercise this material and assembly, through the design of a street and building section cut through one of the buildings you designed in Project 2a. The section will be accompanied by diagrammatic plans of the building and street, and a revised massing model. The exercise will focus on the energetic, atmospheric, and social qualities of the building’s interior and exterior, with special emphasis on their interface condition. Develop a representational strategy for this drawing that builds on existing energetic notation found in the work of Michelle Addington, Kiel Moe, and Philippe Rahm.

2 c) Towards an Architecture of Affordance - 5 weeks – 50% (individual work)

- **Digital submission due in LEARN 6:00pm Friday April 8**

Project 2c will involve the design of an apartment building (or buildings) that follows directly from the urban project designed in Project 2a and the energetic section in Project 2b. This project should develop a material, programmatic and construction thesis about possibilities of connected architecture, focusing on how architecture can be connected to its exterior from both an ecological and social point of view. This implies a direct relationship with the outside as a means of lighting, ventilating, heating and cooling the building as well as in the sourcing of materials and process of construction as a potential to enrich local and distant communities. It also implies a clear relationship between the building and the social life of the neighbourhood and the affordability and diversity of the neighbourhood.

Studio Schedule:

Wk	Mo		Title	Faculty	%
1	Jan	6	9:30 - 10:30 Course Introduction 10:30-11:30 – Introduction of P1a - An Urban Atlas of Brampton	AB, CC, AJ, MPM, TCW	
2		10	9:30-11:00 - Faculty Lecture - Adrian Blackwell - Urban Design in the Greater Toronto Area	AB, MB, CC, AJ, MPM	
		13	9:30-11:00 - Faculty Lecture - Cheryl Case – A Human Rights Approach to Housing	AB, CC, AJ, MPM, TCW	
3		17		AB, MB, CC, AJ, MPM	
		20	P1a due 9:00am, Review LCLT 9:30-5:00, Introduction of P2a Projecting the Urban	AB, CC, AJ, MPM, TCW	15%
4		24		AB, MB, CC, AJ, MPM	
		27	9:30-11:00 - Faculty Lecture - Tura Cousins Wilson - Approaches to Housing Density	AB, CC, AJ, MPM, TCW	
5		31	Brampton Field Trip	AB, MB, AJ, MPM	
	Feb	3	9:30-11:00 - Faculty Lecture - Anwar Jaber - Spatial Justice	AB, CC, AJ, MPM, TCW	
6		7		AB, MB, CC, AJ, MPM	
		10		AB, CC, AJ, MPM, TCW	
7		14	P2a due 9:00pm	AB, MB, AJ, MPM	30%
		17	P2a Review 9:30-12:30, 1:30-5:00 - 5:00 Introduction of P2b – Tracing an energetic Street and Building Section	AB, CC, AJ, MPM, DT, TCW	
		19-27	Reading-week no classes		
8		28	9:30-11:00 - Faculty Lecture - Michael Bootsma – Building Section as a Mediator of Resident Experience and Material Production and Consumption.	AB, MB, AJ, MPM, DT	
	Mar	3		AB, AJ, MPM, DT, TCW	
9		7	P2b due 9:00am, P2b Review, Introduction of P2c Towards a non-alienated architecture	AB, MB, CC, AJ, MPM, DT	5%
		10	9:30-11:00 - Faculty Lecture – Di Tang – The Generosity of Affordable Housing	AB, AJ, MPM, DT, TCW	
10		14	Structural Pin-Up	AB, MB, AJ, MPM, DT	
		17	9:30-11:00 - Faculty Lecture - Marie-Paule Macdonald - Designing Housing Units	AB, AJ, MPM, DT, TCW	
11		21	Interim pin-up	AB, MB, CC, AJ, MPM, DT	
		24	Carbon and Energy Workshop	AB, AJ, MPM, DT, TCW	
12		28		AB, MB, AJ, MPM, DT	
		31	Pin-up of presentation work	AB, AJ, MPM, DT, TCW	
13	Apr	4	Last Class	AB, MB, AJ, MPM, DT	
		8	P2b Digital drawing and model submission 6:00pm Arch 690		50%
		12	P2 Final Reviews Arch 690 Loft Gallery	AB, AJ, MPM, CC, TCW	
		13	P2 Final Reviews Arch 690 Loft Gallery	AB, MB, AJ, MPM, DT	
		14	Grading		

Teaching Team Structure:

Adrian will act as course coordinator and should be your main point of contact for issues related to attendance or course-related issues. Cheryll is the community integration coordinator focusing on communication with community groups and will be in studio two days a week during the first half of the term, while we focus on planning scale work, which is her area of expertise. In Weeks 1-6 when students are working in groups of 4-5, Adrian, Marie-Paule and Anwar, who are each teaching two days a week over the whole term, will each be assigned to one third of the groups in the class while Michael and Tura who each teach one day a week, and Cheryll will rotate between groups each class. In Weeks 7-12, Di will be joining the studio two days a week and we will work individually on studio days meeting with individual students and smaller groups. The three TAs will also be involved in teaching, preparation of course materials and scheduling.

Studio Readings:

Local organizations in Peel (Roots, Indus, Boys and Girls Club, Centre Francophone du Grande Toronto):

<http://www.bgcpeel.org/>

<https://www.induscs.ca/>

<https://rootscs.org/>

[Home - centrefranco.org](http://www.centrefranco.org)

Svirplys, Saul. “Bramalea Blog”. <https://bramaleablog.wordpress.com/>

City of Brampton’s 2040 Vision

“Living the Mosaic: Brampton 2040 Vision.” City of Brampton. Last updated May 18, 2018.

[https://www.brampton.ca/EN/City-](https://www.brampton.ca/EN/City-Hall/Documents/Brampton2040Vision/brampton2040Vision.pdf)

[Hall/Documents/Brampton2040Vision/brampton2040Vision.pdf.](https://www.brampton.ca/EN/City-Hall/Documents/Brampton2040Vision/brampton2040Vision.pdf)

“Brampton 2040 Vision.” City of Brampton. January 2022.

[https://www.brampton.ca/EN/city-hall/brampton-2040-vision/Pages/Welcome.aspx.](https://www.brampton.ca/EN/city-hall/brampton-2040-vision/Pages/Welcome.aspx)

“Brampton 2040 Plan: Policy Conformity Matrix.” WSP. June 2020. [https://pub-brampton.escribemeetings.com/filestream.ashx?DocumentId=10723.](https://pub-brampton.escribemeetings.com/filestream.ashx?DocumentId=10723)

Syed, Fatima. “This is what Brampton could look like in 2040.” Brampton Guardian. May 8, 2018. [https://www.bramptonguardian.com/news-story/8595120-this-is-what-brampton-could-look-like-in-2040/.](https://www.bramptonguardian.com/news-story/8595120-this-is-what-brampton-could-look-like-in-2040/)

Housing / Co-operative Housing / Citizen-led Housing Initiatives

“Housing Brampton: Strategy & Initiatives.” City of Brampton. September 28, 2020.

[https://pub-brampton.escribemeetings.com/filestream.ashx?DocumentId=501.](https://pub-brampton.escribemeetings.com/filestream.ashx?DocumentId=501)

“What We Heard Report: Summary of Engagement for ‘Housing Brampton.’” City of Brampton. February 2021. <https://www.brampton.ca/EN/Business/planning-development/housing-brampton/Documents/COB%20Housing%20Brampton%20Engagement%20Summary%20Report.pdf>.

Peel/Halton Co-operative Housing Federation. January 2022. <https://co-ophousingpeel-halton.coop/>.

Douglas, Pam. “Brampton homeowners fight to preserve one of Ontario’s first housing co-operative.” Toronto Star. February 6, 2019.

<https://www.thestar.com/news/gta/2019/02/04/brampton-homeowners-fight-to-preserve-ontarios-first-housing-co-operative.html>.

Frisque, Graeme. “City officials say Brampton’s illegal second units and rooming houses a big health and safety concern.” Brampton Guardian. September 30, 2020.

<https://www.bramptonguardian.com/news-story/10212253-city-officials-say-brampton-s-illegal-second-units-and-rooming-houses-a-big-health-and-safety-concern/>.

Demographics / Cultural Diversity

McHenry, Stuart Emberg, "The Changing Spaces of Racialized Contestation in Brampton, Ontario; A Multimedia Analysis" (2018). Electronic Thesis and Dissertation Repository. 5680. <https://ir.lib.uwo.ca/etd/5680>.

Tossutti, Lianna S. “Municipal Roles in Immigrant Settlement, Integration and Cultural Diversity.” Canadian Journal of Political Science / Revue Canadienne de Science Politique 45, no. 3 (2012): 607–33. <http://www.jstor.org/stable/23321001>.

Land Trusts / Greenlands Securement Program / Conservation

“Greenlands Securement Program.” City of Brampton.

<https://www.brampton.ca/EN/residents/GrowGreen/Pages/Greenlands-Securement.aspx>.

“Our Success.” Region of Peel: Working With You.

<https://www.peelregion.ca/planning/greenlands/our-success.htm>.

“Brampton Eco Park Strategy.” City of Brampton. 2019.

https://www.brampton.ca/EN/residents/GrowGreen/Documents/Brampton_Eco_Park_Strategy_FINAL.pdf.

“Indigenous Perspectives on Conservation Offsetting: Five Case Studies from Ontario, Canada.” Ontario Nature. https://ontarionature.org/wp-content/uploads/2017/11/Indigenous20Perspectives20on20Conservation20Offsetting20final_796kb.pdf.

“Brampton Eco Park: Current Eco Park Projects.” City of Brampton.

<https://www.brampton.ca/EN/residents/GrowGreen/Pages/Brampton%20Eco%20Park.aspx>.

Preliminary GIS Resources

ArcGIS Brampton Base Map:

<https://www.arcgis.com/apps/mapviewer/index.html?layers=04de88d45dd14fa482153796529798a6>

Brampton GIS Data sets and Zoning Maps:

<https://geohub.brampton.ca/>

Brampton’s Property Lines and Zoning Data:

<https://maps1.brampton.ca/PlanningViewer/?config=zoningsearch.json>

Homelessness in Brampton:

<https://www.cbc.ca/news/canada/toronto/homeless-shelters-women-brampton-1.5433936>

<https://www.cbc.ca/news/canada/toronto/big-city-problems-how-booming-brampton-is-dealing-with-a-spike-in-homelessness-1.5310071>

<https://toronto.citynews.ca/2020/11/27/homeless-eviction-brampton/>

<https://www.insauga.com/is-there-a-homelessness-crisis-in-brampton/>

<https://www.votehousing.ca/mayorsletter>

Greater Toronto Urbanism Resources:

Baird, George, and the Design Guidelines Study Group. *On building downtown: design guidelines for the core area: a report to the City of Toronto Planning Board*. Toronto: City Planning Board, 1974.

Baird, George, D. Clinton, and Bruce Kuwabara. *Built-Form Analysis; a working paper on the implications for built-form of land-use policies relating to housing, mixed uses, and recreation space in the inner core area*. Toronto: Toronto Planning Board, 1975.

Chong, Donald, and Brigitte Shim eds. *Site unseen: laneway architecture and urbanism in Toronto*. Toronto: University of Toronto Faculty of Architecture, Landscape, and Design, 2004.

Dai, Mona, Adrian Blackwell, Lisimar Campero, Negar Hashemi, Sneha Sumanth, Oscar Joel Aguilar Ibarguengoytia, Louise Liu, Yogi Acharya, Organizer, Matthew Lawson. *A Community-Driven Development Proposal for Public Housing at 214-230 Sherbourne Street*, Toronto: Ontario Coalition Against Poverty and Open Architecture Toronto, 2019.

E.R.A. Architects, and the University of Toronto. *Mayor’s Tower Renewal: Opportunities Book*. Toronto: City of Toronto, 2008.

Goonewardena, Kanishka, and Stefan Kipfer. “Spaces of Difference: Reflections from Toronto on Multiculturalism, Bourgeois Urbanism and the Possibility of Radical Urban Politics” *International Journal of Urban and Regional Research*, 29, no. 3 (September 2005): 670–8.

Hulchanski, J. David, and Cities Centre & Faculty of Social Work, University of Toronto. *The Three Cities Within Toronto: Polarization Among Toronto’s Neighbourhoods, 1970-2005*. Toronto: Cities Center Press, 2010.

Ibelings, Hans, and PARTISANS. Nicola Spunt ed. *Rise and Sprawl: the condominiumization of Toronto*. Montreal/Amsterdam: The Architecture Observer, 2016.

Khosla, Punam. *If Low Income Women of Colour Counted in Toronto*. Toronto: The Community Social Planning Council of Toronto, 2003.

Kipfer, Stefan and Roger Keil, “Toronto Inc? Planning the Competitive City in the New Toronto” *Antipode*, 34:2 (March 2002): 227-264.

Kuwabara, Bruce and Barry Sampson, "The form of Reform", *The City Book*, edited by James Lorimer and Evelyn Ross. Toronto: James Lorimer & Co. Publishers, 1976.

Lorinc, John, Alex Bozikovic, Cheryll Case, and Annabel Vaughan eds. *House Divided: How the Missing Middle Will Solve Toronto's Affordability Crisis*. Toronto, Coach House Books, 2019.

Metrolinx, *Setting the Stage: Encouraging Transit Supportive Places on the Finch West LRT Corridor*, August 2015

Myers, Barton; and George Baird, “Vacant Lottery.” *Design Quarterly* 108 (1978): 1-3,6-51.

Pitter, Jay and John Lornic eds. *Subdivided: City-Building in an Age of Hyper-Diversity*. Toronto: Coach House Books, 2016.

Sewell John, *The Shape of the City: Toronto Struggles with Modern Planning*. Toronto: University of Toronto Press, 1993.

Sewell John, *The Shape of the Suburbs: Understanding Toronto's Sprawl*. Toronto: University of Toronto Press, 2009.

Urbanism General:

Armbrorst, Tobias, Daniel D'Oca, and Georgeen Theodore. *The Arsenal of Exclusion & Inclusion*. Barcelona: Actar, 2017.

Devillers, Christian. *The Urban Project*, trans. Marie-Paule Macdonald.

Housing:

Moos, M. & Walter-Joseph, R. (eds.) (2017). Still Detached and Subdivided? Suburban Ways of Living in 21st Century North America. Berlin: Jovis Verlag.

a+t Density Series:

Density Condensed Edition, (2006)

Density projects: 36 new concepts on collective housing” (2007)

Density is Home, (2010)

Blumgart, Jake. “How Bernie Sanders Made Burlington Affordable”, Slate, Jan 19, 2016
<https://slate.com/business/2016/01/bernie-sanders-made-burlingtons-land-trust-possible-itsstill-an-innovative-and-effective-model-of-affordable-housing-today.html>

Choi, Binna and Maiko Tanaka, “You ask me if there is another ‘Grand Domestic Revolution’ going on right now, and the answer is.... an Interview with Dolores Hayden” in *The Grand Domestic Revolution Goes On* eds. Binna Choi and Maiko Tanaka (Amsterdam: Casco-Office for Art Design and Theory, 2010)

Choi, Binna and Maiko Tanaka eds. *Grand Domestic Revolution Handbook*, Amsterdam: Casco-Office for Art Design and Theory, 2014.

Davis, John Emmeus “Origins and Evolution of the Community Land Trust in the United States” in *The Community Land Trust Reader* (Cambridge MA: Lincoln Institute of Land Policy, 2010), 3-47.

Hertzberger, Herman, *Lessons for Students of Architecture*, Rotterdam: 010 Publishers, 1991.

Lacaton, Anne, Jean Philippe Vassal, Mathieu Wellner, “Surplus” in *Reduce, Reuse, Recycle: Architecture as Resource*, eds. Muck Petzet / Florian Heilmeyer, Venice: German Pavilion 13th International Architecture Exhibition, La Biennale di Venezia, 2012.

Madden, David and Peter Marcuse *In Defense of Housing: The Politics of Crisis*. London: Verso, 2016.

Osborn, Bud, Nicholas Blomley, and Eugene McCann. “‘Raise Shit’, A Poem by Bud Osborn (4 August 1947 – 6 May 2014)” *Society & Space* (online, May 19, 2014)
<https://societyandspace.org/2014/05/09/raise-shit-a-poem-by-bud-orson-4-august-1947-6-may-2014/>

Parkdale Neighbourhood Land Trust, “Starting a CLT”
<http://www.pnlt.ca/clt-tool-kit/starting-a-clt/>

Parkdale People’s Economy, Parkdale Community Benefits Framework (Toronto: Atkinson, 2018)

Pohl, Ethel Baraona, “The Elements of the House, revisited” e-flux architecture (online)
<https://www.e-flux.com/architecture/positions/280228/the-elements-of-the-house-revisited/>

Right to Housing in Toronto Website: <https://right2housingto.ca/>

Ring, Kristien. “Self-Made City” *Future West (Australian Urbanism)* (2016), 20-37.

Rosenthal, Tracy Jeanne “101 Notes on the LA Tenants Union”, *Commune* (online, July 17, 2019), <https://communemag.com/101-notes-on-the-la-tenants-union/>

Schneider, Friederike, ed. “Floor Plan Atlas: Housing”. Basel: Birkhauser, 1997.

Sherwood, Roger. “Modern Housing Prototypes”. Cambridge: Harvard U. Press, 1978.

Stavrides, Stavros. “Housing and the City: Reinventing the Urban Commons” in *Grand Domestic Revolution Handbook*, Binna Choi and Maiko Tanaka eds. Amsterdam: Casco-Office for Art Design and Theory, 2014.

SvN. *Housing Affordability in Growing Urban Areas - Independent report on housing affordability in Ontario* Toronto: OAA, 2019.

Thermodynamic Architecture:

Addington, Michelle. “Contingent Behaviours.” *Architectural Design* 79, no. 3 (May/June 2009): 12-17.

Moe, Keil. *Insulating Modernism: Isolated and Non-Isolated Thermodynamics in Architecture*. Basel: Birkhauser, 2014.

Moe, Keil. *Thermally Active Surfaces in Architecture*. New York: Princeton Architectural Press, 2010.

Moe, Keil. *Convergence: An Architectural Agenda for Energy*. London: Routledge, 2013.

Moffitt, Lisa. “Thermodynamic Optimism: Three Energy/Material Dialogues.” *Edinburgh Architectural Research* 33 (2012): 57-64.

Odum, Howard T. “Material Circulation, Energy Hierarchy, And Building Construction.” Charles J. Kibert, Jan Sendzimir, and G. Bradley Guy eds. *Construction Ecology: Nature as the basis for green buildings*. London and New York: Spon Press, 2004, 38-71.

Srinivasan, Ravi, and Kiel Moe. *The Hierarchy of Energy in Architecture: Emergy Analysis*. London Routledge, 2015.

Helpful Resources for Sustainable Building:

https://www.canadianarchitect.com/asf/perspectives_sustainability/measures_of_sustainability/measures_of_sustainability_intro.htm

<https://cep.ees.ufl.edu/emergy/resources/presentations.shtml>

<https://www.eia.gov/consumption/commercial/data/2012/#b1-b2>

Course Delivery Platforms & Communication

To organize materials and communication outside of weekly in-person sessions, we will use the following:

LEARN – Official communication, work submission, and grade recording and release.

MS TEAMS – Used for supplementary discussions outside of in-person class time. Students will be added to the course team in the first week of class.

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.

As this term was planned to be in person, though we are starting the term online, remote lectures in the studio will not be recorded. Students must attend in person.

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 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>).

Passing Grades

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

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>.

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.

Digital submissions:

Students should ensure that hard copy drawings and models are available for desk reviews. Digital files are required to accompany all major project submissions regardless of their original form. Unless otherwise specified, they must be accompanied by paper printouts or formatted physical panels which will be used in reviews (these will be printed after the digital submission deadlines by ACM). Specific lists of the requirements of each project submission will be included with individual project handouts. Digital submissions will be required as a means to archive the work of individual students and groups throughout the term. All files must be submitted in readable pdf and tiff formats to LEARN.

Daily Schedule:

Students are required to be working in the studio during the scheduled hours. Repeated absence may be sufficient reason to request withdrawal from the course. Students are also required to attend and participate in all scheduled reviews, and expected to attend all guest lectures and other events.

Studio culture:

The School of Architecture building is open every day, seven days a week, which allows students to execute their design work in the studio. Working in isolation inevitably undermines the potential of the collective environment of the studio, can be detrimental to the quality of a student's work. The development of a healthy studio culture involves intensive production as well as a critical and speculative dialogue with regard to their own work and the work of others. The studio must be a safe and inclusive environment in which all students can work without unnecessary distraction. Disruptive behavior is not allowed. Headphones must be used if a student wishes to listen to music or other electronic media. The student lounge, gym, and basketball court are available to any student who wishes to engage in activities unrelated to studio work.

Studio Environment & Cleanup:

The studio is a shared workspace. Students are to cooperate in maintaining a productive work environment; this includes respecting noise-levels and tidiness over the course of the term.

It is the students' responsibility to keep the studio environment tidy and safe. We will take the opportunity after deadlines to review the state of the studio. Project grades for the class will not be released until the studio is returned to a tidy and safe state. Clean-up days are marked in the schedule.

At the end of the term, students are responsible for returning their studio space to the same state in which they found it on the first day. Students are to remove ALL personal items from the studio by April 28, 2019. Items not wanted should be placed into the appropriate receptacles and not left in the studio or elsewhere in the building. Your final grade will not be released until your studio space is returned to the state in which you found it at the beginning of term.

Reviews:

Reviews are not evaluations but rather investigations and debates. Evaluation will take place in confidential sessions by the studio faculty working as a group, in which all critical aspects of each project will be considered. It is crucial that each student, not only participate in their own review, but also in the reviews of the work of fellow students. Participation in class reviews and seminars is mandatory. Video recorders and audio recording devices should not be utilized in review sessions without the approval of the course instructor(s) present. Students are encouraged to make a written record of the criticism they receive from faculty members and guest critics through the assistance of a classmate who can take notes regarding the content of the conversation on one's behalf. Desk reviews are not objective debates or evaluations, but opportunities to receive advice specific to each student and each project. The project and the decisions made in the students design work are ultimately the student's responsibility.

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.