

M.Arch Final Thesis Reviews

Tuesday, August 2nd, 2022



**UNIVERSITY OF
WATERLOO**

**FACULTY OF ENGINEERING
SCHOOL OF ARCHITECTURE**

Cambridge, Ontario

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SCHEDULE

9:30 AM - 11:00 AM

Maulshree Gupta

Supervisor: Val Rynnimeri

Committee Member: Terri Boake

Internal Reviewer: Tracey Winton

External Reviewers: Kearon Roy Taylor
& Kellie Chin

11:00 AM - 12:30 PM

Ashwati Teresa Joseph

Supervisor: Terri Boake

Committee Member: Tara Bissett

Internal Reviewer: Marie-Paule
Macdonald

External Reviewers: Kellie Chin &
Robert Jan van Pelt

Jordan D'Ascenzo

Supervisor: Val Rynnimeri

Committee Member: Mohamad Araji

Internal Reviewer: John McMinn

External Reviewers: Miles Gertler &
Kearon Roy Taylor

12:30 PM - 1:30 PM

Lunch Break

1:30 PM - 3:00 PM

Audrey Leung

Supervisor: Marie-Paule Macdonald
Committee Member: Tara Bissett
Internal Reviewer: Adrian Blackwell
External Reviewers: Kearon Roy Taylor
& Miles Gertler

Lucy Lin

Supervisor: Jane Mah Hutton
Committee Member: John McMinn
Internal Reviewer: Tracey Winton
External Reviewers: Kellie Chin &
Robert Jan van Pelt

3:00 PM - 4:30 PM

Tala Jabbarimoghaddam

Supervisor: Marie-Paule Macdonald
Committee Member: Terri Boake
Internal Reviewer: Adrian Blackwell
External Reviewers: Kellie Chin &
Robert Jan van Pelt

Nicholas Michael Puersten

Supervisor: Val Rynnimeri
Committee Member: Tracey Winton
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& Miles Gertler

FOOD & CULTURAL CENTER A New Model for Toronto's Shopping Center |A place for collective memories and unheard stories of South Asian Immigrants in Canada|

Maulshree Gupta

Supervisor: Val Rynnimeri

Committee Members: Terri Boake

Internal Reviewer: Tracey Winton

External Reviewers: Kearon Roy Taylor & Kellie Chin

9:30 AM - 11:00 AM



ABSTRACT

With the increase in global migration, the notion of cultural identity is now no longer attached to a single place or time and is a continuous process of re-making. This thesis investigates the role of art, craft, and food in preserving the cultural identity of South Asian Immigrants and their future generations in Canada. Building on the existing research on dissipating cultural identities of Immigrants, this thesis documents the un-heard stories of South Asian Immigrants and food recipes that remind them of home to create a passage of embracement. It focuses on the South Asian community settled in Thorncliffe Park, Toronto, known as the 'Arrival City', and envisions ways to collectively re-make their socio-cultural identity through the medium of food, craft, and art, and to create a place of opportunity. The research begins with collecting an archival collection of authentic recipes, stories, food traditions, and community initiatives as a medium to be seen and heard through storytelling platforms that will contribute to developing the unheard narrative of this design-based thesis. This design-based thesis will take the steps toward creating a South Asian community recreational space in Thorncliffe Park, a source, and a resource to preserve their food traditions, community sensitive building language and create better revenue generation opportunities.

Beyond Wayfinding: Sensory enhanced design for the non-sighted

Ashwati Teresa Joseph

Supervisor: Terri Boake

Committee Members: Tara Bissett

Internal Reviewer: Marie-Paule Macdonald

External Reviewers: Kellie Chin & Robert Jan van Pelt

11:00 AM - 12:30 PM



ABSTRACT

While visually oriented architectural design has long been used to enhance the perceptions that shape the world of an existing ocular-centric norm, this has led to a less than satisfactory experience for users with less-than-optimal visual abilities. Today's urban environments have evolved to become sensorially overloaded resulting in a chaotic and overwhelming situation that is difficult for wayfinding in the absence of sightedness. Existing code-based requirements are barely sufficient for the majority of spatial applications but tend to be seen as the maximum requirement by architects and urban designers. This thesis explores the potential of carefully adding other sensory means to enhance the overall spatial experience of the sight challenged population, with a broad focus on wayfinding. The thesis proposes possible approaches for designing architecturally enhanced sensory experiences. The research is aimed toward providing new design strategies for architects and urban designers as methods of engaging a visually or partially impaired user alongside the abled users to experience the space more clearly and deeply with their senses. While the universal language principles and existing techniques of traditional touching and tapping are studied as initial references, the final research comprises the integration of senses dealing with qualities of tactility, hapticity, auditory, olfactory and navigatory instances of architecture that can be globally applied. The thesis analyzes a set of design strategies that have been developed through personal experiences that when applied to smaller-scale scenarios give rise to a predictive language. The strategic design layers are referenced from personal sensorial experiences and are illustrated within two smaller-scale integrated spaces of a pop-up market and a garden, non-contextual in nature. It would be intended that these two scenarios would form a base point to demonstrate the potential effectiveness of the strategies to form a departure point for more global application in other scenarios.

SEASCRAPER: Reclaiming the Plastic Vortex Through Oceanic Stewardship and Inhabitation

Jordan D'Ascenzo

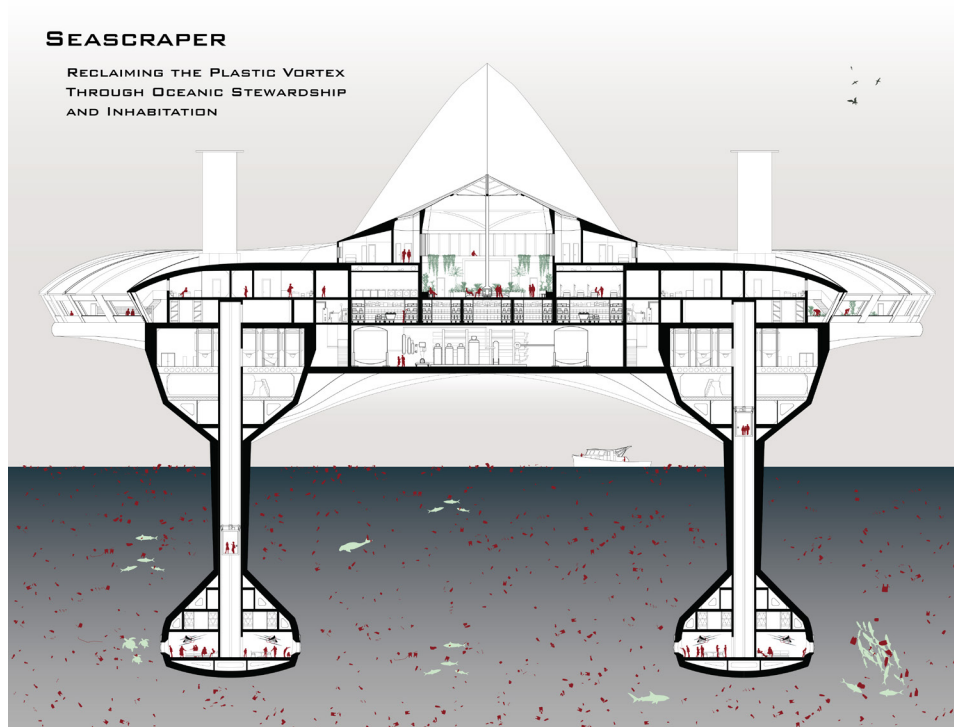
Supervisor: Val Rynnimeri

Committee Members: Mohamad Araji

Internal Reviewer: John McMinn

External Reviewers: Miles Gertler & Kearon Roy Taylor

11:00 AM - 12:30 PM



ABSTRACT

Decades of humans carelessly tampering with the delicate ocean ecosystems are pushing wildlife to their breaking points, with an entire ecosystem collapse inching closer every day. My thesis will explore the known extent of plastic debris currently in the North Pacific Ocean; the successes and shortcomings of a variety of existing aquatic architectural precedents; finally, culminating in a theoretical prototype design for a semi-autonomous, ocean-based recycling facility.

How can an ocean-based architecture be used to develop a successful intervention to the millions of tons of plastic debris that are dumped into the oceans each year? This research will investigate the requirements of planning and building a self-sustaining, water-based recycling structure, but also offer a deeper understanding of how to overcome the challenges of building in such a harsh environment.

Using a range of interdisciplinary books, scientific journals and articles, websites and documents, an exploration will be conducted to achieve a full understanding of the requirements of the design. The design of the vessel itself is informed by factoring both the environmental issues of extended exposure in a harsh environment and the performance requirements of its primary objective. Since this vessel will be isolated from most human communities it must also be capable of functioning autonomously for extended periods of time. The results of the design explorations will be represented through a series of written texts, architectural drawings, and diagrams. The key impacts of my research will be not only to provide a possible solution to the growing waste plastic problem, but also to provide a prototype for the development of future ocean-based arcologies.

Borders & Barricades: A Spatial Study of the Anti-Extradition Law Amendment Bill Movement in Hong Kong

Audrey Leung

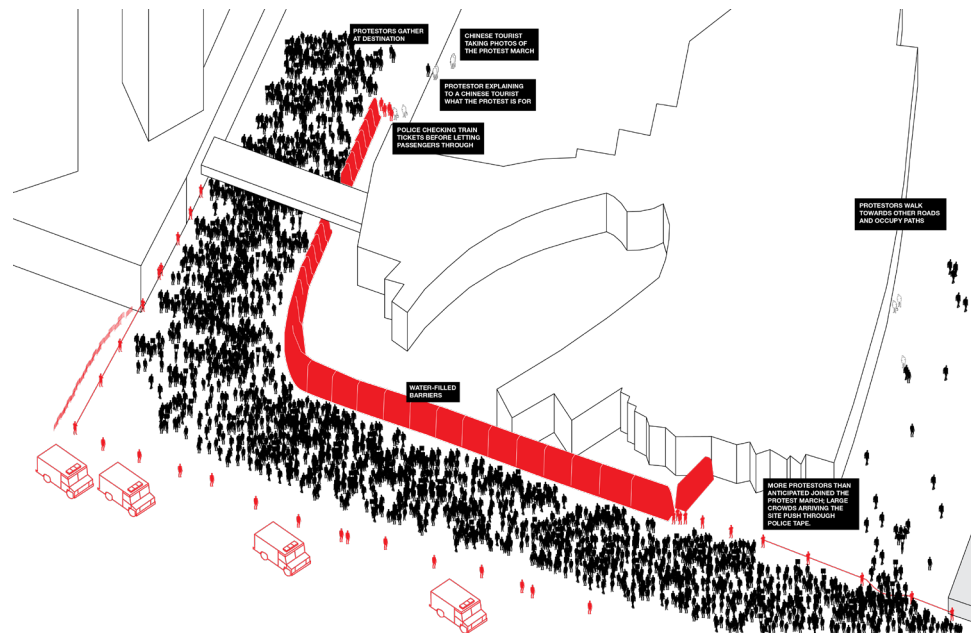
Supervisor: Marie-Paule Macdonald

Committee Members: Tara Bissett

Internal Reviewer: Adrian Blackwell

External Reviewers: Kearon Roy Taylor & Miles Gertler

1:30 PM - 3:00 PM



ABSTRACT

Amidst the global rise of resistance against the entanglement of crises and discontent, space performs an elementary role in the pursuit of changes to the status quo. Hong Kong's administrative boundaries has been in continuous shift throughout the process of British occupation and now from the impending expiry of the city's Special Administrative Region status under Sino-British agreement in 2047. While the city has operated with its independent administration since 1997, its border with the rest of China is diminishing today through various political-economic mechanisms.

The Extradition Law Amendment Bill introduced in 2019 is the latest radical resistance in a series of historical accounts. Hong Kong's protesters pursued change through occupying and appropriating in a series of protests that developed a unique language. This thesis examines the Anti-Extradition Law Amendment Bill Movement in the context of Hong Kong's historical spatial narrative and postcolonial identity. The opening chapter positions the latest movement in the history of the city's borders, highlighting the spatial implications of the proposed legislation. The following chapter contextualizes the social movement and the legislation in a detailed account of Hong Kong's previous protests, and the spatial descriptive qualities that such legislation pose. And finally, the Movement itself is dissected to understand the specific mechanisms used in pursuit of creating, and challenging space.

*Translating Material Landscapes: A Material Culture Study
on Queenston Limestone*

Lucy Lin

Supervisor: Jane Mah Hutton

Committee Members: John McMinn

Internal Reviewer: Tracey Winton

External Reviewers: Kellie Chin & Robert Jan van Pelt

1:30 PM - 3:00 PM



ABSTRACT

Named after the Queenston Quarry, Queenston Limestone is a highly valued building stone for its strong, durable building properties and ease to quarry, earning its reputation as the “Corner Stone of Upper Canada”. ***Translating Material Landscapes: A Material Culture Study on Queenston Limestone*** documents the material journey of Queenston Limestone from its extraction site, through the hands of craftspeople, to the built environment. Through this process, this thesis positions the material as an active participant in the transformation of landscapes, building practices and designed spaces.

This thesis therefore consists of three exercises that follow the material’s trajectory:

Part One, ***Landscape as Culture***, involves an in-depth study into multiple aspects of the Queenston Quarry through a series of drawings, diagrams and photographs, documenting the geological forces and human activities that influenced the development of the landscape over time. Part Two, ***Crafting Discards*** is my attempt to re-connect with the material through traditional craft and material reuse studies. Part Three, ***Translating Material Landscapes*** explores the designers’ role in creating a space to expose the complex material landscape of the quarry and foreground the intricate processes of stone craft within the built environment. Through these three parts, this thesis hopes to better understand the value, meaning and agency of building materials in its infinite timeline of material life.

Transitional Housing Development for Afghan Refugees in Canada

Tala Jabbarimoghaddam

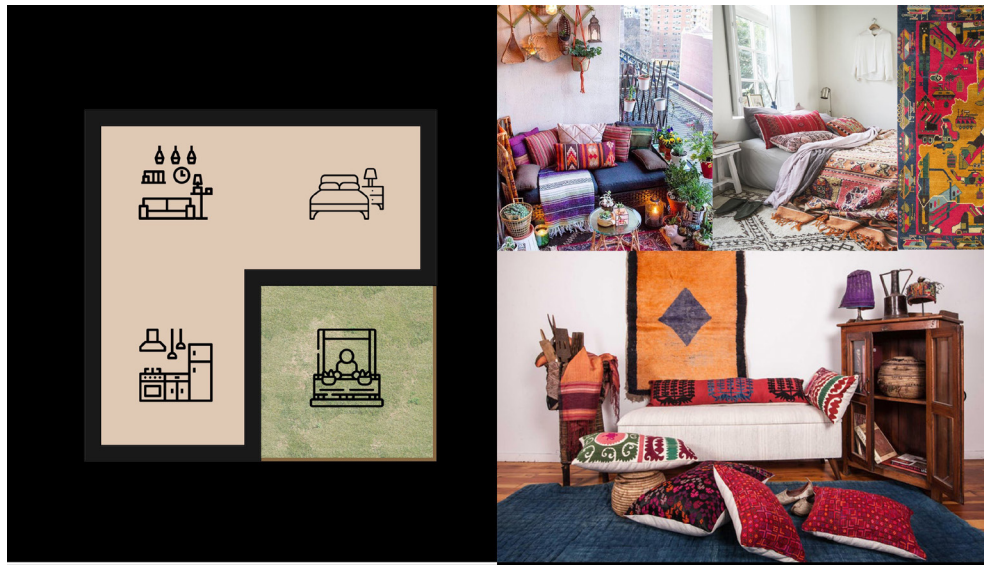
Supervisor: Marie-Paule Macdonald

Committee Members: Terri Boake

Internal Reviewer: Adrian Blackwell

External Reviewers: Kellie Chin & Robert Jan van Pelt

3:00 PM - 4:30 PM



ABSTRACT

According to the United Nations High Commissioner for Refugees, the number of forcibly displaced people is growing yearly. These people flee their country due to war, violence, persecution, famine, and other life-threatening reasons. Most of the refugees arrive in the host country with a traumatizing background and with a high need for support to cure their mental and physical crises, learn the culture and language of the host country, build a community and integrate into the new society, and most importantly to find proper and affordable housing.

As a country with a high refugee acceptance rate, Canada has many homeless people, especially in its big cities like Toronto. Although programs and facilities like transitional housing are available for homeless people, such facilities for vulnerable groups like refugees with their specific needs seem missing.

This thesis research aims to suggest a new transitional housing typology with services focused on the needs and demands of the refugee communities-in this case, Afghan refugees- to support them through the journey of integration into a new environment, ease the process of finding affordable permanent housing, and help them build a community.

This research includes aerial maps to analyze the intended site in Etobicoke, Canada, design drawings to illustrate the design, and images as precedents to support the ideas behind the design.

Life on Mars: Palimpsests of the Forthcoming Martian Res Publica

Nicholas Michael Puersten

Supervisor: Val Rynnimeri

Committee Members: Tracey Winton

Internal Reviewer: David Fortin

External Reviewers: Kearon Roy Taylor & Miles Gertler

3:00 PM - 4:30 PM



ABSTRACT

Mars is set to be the new frontier of humanity, and as a result poses a unique set of architectural and engineering challenges to be overcome. Interest into both small and large-scale Martian settlements has greatly increased in the past several years, however many of these projects exist as sole entities within a foreign landscape, ignorant of site, culture, or temporal context. They cannot be considered towns and do not produce a valid form of public space as we know it.

This project aims to explore and suggest an alternative: a set of architectural frameworks based on vetted engineering solutions and urban design principles from which a uniquely Martian *res publica* could grow and thrive, all within the context of a long-term colonization and terraforming effort. Through diagrams, drawings, and written text, this thesis explores the growth of a settlement on Mars at three different stages of terraformation and attempts to understand the driving forces that shape how Martians might live.

