

Your guide to the IwB. An overview of values, pedagogy, curriculum, and the 2020-21 research focus — Future Ways of Living and Aging In Place.

**2020  
-21**

**S  
T  
U  
D  
E  
N  
T  
H  
A  
N  
D  
B  
O  
O  
K**



**INSTITUTE WITHOUT  
BOUNDARIES**

---

**Interdisciplinary Design Strategy at the Institute without Boundaries is a post-graduate program within the School of Design at George Brown College.**

[www.institutewithoutboundaries.com](http://www.institutewithoutboundaries.com)

Copyright © 2020 George Brown College

**Luigi Ferrara**

Dean, Centre of Arts, Design and Information Technology and Director of the lwB  
416-415-5000 Ext. 2165  
lferrara@georgebrown.ca

**Ana Rita Morais**

Chair, School of Design  
416-415-5000 Ext. 3334  
anarita.morais@georgebrown.ca

**Graeme Kondruss**

Special Projects Manager, lwB  
GKondruss@georgebrown.ca

**Nazanin Homayounfar**

Academic Coordinator, IDS  
647-302-0735  
nazanin.homayounfar@georgebrown.ca

**Security**

416-415-5000 Ext. 2773

**Studio Hours**

Weekdays: 7:30 am–midnight  
Weekends: 7:30 am–midnight  
Holidays: Closed

**Mailing Address**

Institute without Boundaries  
School of Design  
George Brown College  
3 Lower Jarvis Street, Room 260  
Toronto, Ontario  
Canada M5E 3Y5

**Address for Visitors and Couriers**

Institute without Boundaries  
School of Design  
George Brown College  
Third Floor  
3 Lower Jarvis Street  
Toronto, Ontario, M5E 3Y5

---

**Student Services and Financial Aid**

200 King Street East, Lower Level

**Stu-view Account and Help Line**

[www.stuview.georgebrown.ca/](http://www.stuview.georgebrown.ca/)  
To re-set password: 416 415-2000,  
press 1 – 3 then 4

No part of this work may be produced or transmitted in any form or by any means electronic or mechanical, including photocopying and recording, or by any information storage and retrieval system without written permission from the publisher—except for a brief quotation (not to exceed 200 words) in a review or professional work.

**Note to Students**

Academic Departments at GBC will not retain historical copies of the program outlines. We urge you to retain this Program Outline for your future reference.

**Important Dates and Policies**

Visit [www.georgebrown.ca/current\\_students/](http://www.georgebrown.ca/current_students/) for important policies, dates, services and tools for all students at George Brown College.

**Equity Statement**

George Brown College values the talents and contributions of its students, staff and community partners and seeks to create a welcoming environment where equity, diversity and safety of all groups are fundamental. Language or activities which are inconsistent with this philosophy violate the College policy on the Prevention of Discrimination and Harassment and will not be tolerated. The commitment and cooperation of all students and staff are required to maintain this environment. Information and assistance are available through your Director, Student Affairs, the Student Association or the Human Rights Advisor.

**Student Responsibilities**

Students should obtain a copy of the Student Handbook and refer to it for additional information regarding the grading system, withdrawals, exemptions, class assignments, missed tests and exams, supplemental privileges, and academic dishonesty. Students are required to apply themselves diligently to the course of study, and to prepare class and homework assignments as given. Regular attendance is strongly advised. Past student performance shows a strong relationship between regular attendance and success.



**INSTITUTE WITHOUT BOUNDARIES**

W  
L  
E  
O  
C  
M  
E



**This handbook is for you.** It presents an overview of the IwB values, methods and past research projects, as well as the major project you will be undertaking during the 2020–21 academic year. We have also included key information on important dates and deadlines, the curriculum structure, and a list of suggested readings. This handbook will act as a guide to get you started and as a resource for you throughout the year.

As a student of the IwB, you will participate in one of the most challenging and rewarding experiences of your life. You will be mentored by dedicated faculty and staff who will guide you throughout the year and beyond. At the IwB, we strive to create a meaningful, challenging and innovative learning experience, and to create projects that will have a long lasting impact on the world. You will learn about yourself, your peers, the world, design and collaboration. We can't wait to see what you'll accomplish!



**08**

**Part 1:**

**Institute without Boundaries**

*Our Vision, Approach and Methodologies*

About the IwB

Educational Approach and Methodologies

Program Outcomes

**20**

**Part 2:**

**IwB Research**

*Past Research Themes: 2003–2018*

2003–2005: Massive Change

2006–2009: World House

2009–2013: City Systems and MOVE Expo

2013–2018: Regional Ecologies

**32**

**Part 3:**

**Future Ways of Living**

*Current Research Theme*

Future Ways of Living: Perspectives on Affordability

Future Ways of Living: Ethical Smart Cities

Future Ways of Living and Aging in Place

Meet your 2020–21 Faculty

The Class of 2020–21

Student Expectations and Studio Rules

**58**

**Part 4:**

**Curriculum Overview**

Curriculum Structure: Fall Semester

Course Descriptions: Fall Semester

Weekly Schedule: Fall Semester

Curriculum Structure: Winter Semester

Course Descriptions: Winter Semester

Weekly Schedule: Winter Semester

Reading List and IwB Resource Guide

---

# PART 1

---

# **Institute without Boundaries**

## **Our Vision, Approach and Methodologies**

## About the Institute without Boundaries

“ ”

---

*The IwB is a catalyst for design innovation. A place where creative minds come together and apply whole systems thinking to solve complex global challenges.*

**Carmen Paz**

Alumni from World House Project Year 1  
Institute without Boundaries

---

Founded in 2003, the Institute without Boundaries (IwB) is a Toronto-based studio that works toward collaborative design practice with the objectives of social, ecological and economic innovation through design research and strategy.

At the Institute, we see the designer as a problem solver with the ability to affect positive change for humanity. The IwB is a place where students, teachers, industry and community experts come together to solve complex global issues. Just as wicked problems span across social, political, economic and environmental boundaries, the new generation of designer must do the same—challenging 21<sup>st</sup> century paradigms.

As a student at the IwB, you will collaborate within an interdisciplinary team to tackle a real-world challenge within an overarching research project. Starting in 2018, we have shifted our research focus from Regional Ecologies to Future Ways of Living - investigating the

social, political, economic, environmental, cultural and technological forces shaping the 21<sup>st</sup> century and their impact on human experiences. Through this program, you will conduct research, create comprehensive proposals and present your work to key stakeholders.

Upon successfully graduating from the program, you will also be able to enrol into the Master of Arts in Interdisciplinary Design Strategies at the Institute of Art, Design and Technology, Dún Laoghaire (IADT). IADT is Ireland's only institute of art, design and technology with a specific focus on the creative, cultural and technological sectors.

Through collaborative practices, the program provides candidates with a systemic and in-depth knowledge of integrated design strategies, critical awareness and advanced design methodologies to solve the most pressing global challenges.

**VISION**

**Collaborative design practice for a better world.**

**MISSION**

**Fostering collaboration between disciplines to create innovative local solutions to 21st century global challenges.**

## VALUES

Students, faculty, mentors and advisors share a commitment to collaborate, conceptualize, create, test and share. These are informed by the following values:

- Innovation
- Respect
- Openness
- Compassion
- Diversity
- Curiosity
- Collaboration
- Honesty
- Diligence
- Fairness
- Integrity
- Creativity

## OUR DESIGN PRINCIPLES

At the Institute without Boundaries we believe design is a tool that can affect positive change. This ideology encourages values and design outcomes that are intelligent, ethical, sustainable, inclusive and universally accessible.

## OBJECTIVES

- Promote a design methodology based on co-creation.
- Deliver design-based education to foster an understanding of design as a capacity-building tool.
- Develop leading-edge projects that can serve as curriculum challenges for students, faculty, industry-mentors, and international partners.
- Conduct design projects which act as a catalyst for global collaboration.
- Create and exhibit design that provokes and engages the public.
- Support the evolution, growth and success of the students, alumni and mentors of the Institute to enhance their influence and visibility.



# Educational Approach and Methodologies

## **EDUCATIONAL MODEL**

The Institute has pioneered a post-graduate level curriculum using a design-based educational model that fosters learning across disciplines, integrating specialised knowledge and breaking down geographic, cultural and social barriers. The Institute offers students the demands of a real project and the intellectual and creative rigour required to undertake it.

At the IwB, students will learn through participation in every aspect of a project, assuming a variety of roles and actively engaging with the project partners. They will share these findings with the public in a meaningful way. Students will be mentored to follow best practices of a professional design studio using design briefs, strategies and project management tools, and be encouraged to practice a think/make research methodology and apply it to the design process.

## **METHODOLOGIES**

The IwB is continually refining its working processes, and developing tools and frameworks for thinking about and communicating design challenges. The following methodologies inform coursework and projects.

- 01 *Design Research*
- 02 *Partnered Applied Learning*
- 03 *Design Strategy*
- 04 *Ecology of Innovation Approach*
- 05 *Systems Thinking*
- 06 *Evolutionary Design Paradigms*
- 07 *Charrettes*
- 08 *Studio Practice*
- 09 *Integrated Design Process*
- 10 *Design Communication*

---

## 01 Design Research

Understanding and framing the problem is the first step in any design process. The IWB uses design research to explore the context and establish baseline considerations and objectives for a successful design solution. Both primary and secondary research methods are employed: Field research activities include photo documentation, interviewing stakeholders, sketching, mapping, collecting numerical data, observation, and note taking. Desk research activities include traditional methods like literature reviews, market scans, and collecting design precedents, but also extend to the creation of “day in the life” user scenarios, testing design concepts, and conducting community engagement sessions to analyze current patterns to co-create solutions and get feedback about them in the field. The design research process uncovers key insights that lead to unique design propositions and design solutions—these often come from community members or stakeholders, but sometimes arise out of simple observation by “outsider eyes.”

## 02 Partnered Applied Learning

The IDS program centres on real projects and the curriculum encourages interaction with and feedback from partners, stakeholders and community members. Students learn how to listen, gather information, identify user needs and respond appropriately. In the fall semester, students conduct background research by engaging with the community they will be designing for. They also work with representatives from industry and government to learn about the challenges of and opportunities associated with their specific project. In the spring, students propose and execute a design project, resulting in reports, schematic designs, budgets and implementation plans. This gives students a more thorough understanding of the complexities, constraints and opportunities inherent in real projects with real budgets and deadlines.

## 03 Design Strategy

The IDS program focuses on integrating design strategy in all projects. The Institute sees design strategy as a coordinated approach using all design disciplines to cultivate a viable path to achieving a client’s goals, letting the nature of each design strategy evolve to fit particular challenges. The goal is not only to design a solution for an immediate problem but also to propose flexible frameworks and systems that communities and organizations can adapt to solve problems in the future as their contexts change.

## 04 Ecology of Innovation Approach

The IWB uses an ecology of innovation approach to understanding and solving problems. Studying the complexity and interconnectedness of political, social, design, technical and business systems reveals that innovation is multi-directional and multi-faceted. A constellation of factors must align to make true and lasting change possible. While social innovation may help us determine how we might want to live differently, technology can build platforms that allow for these new possibilities to operate. Design can contextualize those possibilities into formats we can understand and use, and business innovation can render the formats replicable and propagate them in society. Finally, politics can assist in institutionalizing innovation, creating a pervasive environment that becomes a background that guides and regulates how we live. As a conceptual method, an ecology of innovation is based on the proposition that all these forces interacting in synergy are required to make social change. The method promotes a culture and attitude of experimentation and considers innovation as inclusive of tools, strategies and the development of key relationships, recognizing that it is the synergy of these factors that enables social change.

---

## 05 Systems Thinking

The lwb fosters systems thinking that aims to reveal patterns through observing, modeling and visualizing complex variables and interdependencies. Systems thinking makes tangible the multi-dimensional nature of today's urban challenges. Students are encouraged to think holistically and to consider the many factors influencing a given challenge. To avoid tackling a problem from a single perspective, a systems "matrix" provides a checklist that helps students ask new questions and contemplate the intersections of a variety of systems. The Institute has developed two such matrices that are consulted and adapted each year: the World House Matrix organizes the basic elements of housing into twelve systems, covering terrain, climate, economy, and culture. The City Systems Matrix identifies seven characteristics that combine to create a healthy city: wellness, safety, accessibility, diversity, cohesion, identity and sustainability.

## 06 Evolutionary Design Paradigms

The lwb designs projects that evolve in response to the needs of different stakeholders and specific contexts. Rather than create solutions that are appropriate only to one challenge, location, time period or target audience, the lwb generates tools, strategies and methodologies that are adaptable over time and reflect an understanding of evolutionary currents. Not only are lwb proposals intended to be relevant in other locations and for different audiences, but they are also designed to be flexible, easy to adapt and responsive to local needs. At the same time, by considering problems as broadly as possible, the lwb looks for connections with those who face similar challenges around the globe, and works with others to generate ways of working that can be useful to many. By considering problems from the perspectives of a variety of stakeholders, we create systems that encourage as many people as possible to participate and contribute to the design of both the system and the solution.

## 07 Charrettes

A charrette is an intensive collaborative process that brings together students and professionals from different disciplines. Over a few short days of brainstorming, discussion, and expert consultation, interdisciplinary teams create a range of ideas around a central theme and eventually focus in on a single concept. The charrette is a design process used by architects, urban planners, and designers to connect community members, developers, and professionals to address complex projects like neighbourhood planning, urban development, and construction projects. Working side by side in a charrette, these groups are able to develop feasible solutions that meet everyone's needs. During charrettes, lwb students are given leadership roles as team facilitators, making them responsible for ensuring that their team of students from different programs and schools collaborate and stay on track.

The term charrette is drawn from the late 1800s, where proctors at the École Des Beaux-Arts in Paris would circulate a cart (charrette) to collect drawing submissions as students rushed frantically to finish their work. The lwb charrette process develops a similar momentum, which is key to the success of the event. Charrettes are used at various points throughout the school year. The size varies, ranging from lwb students exploring strategies for the major project, to events of over two hundred students visiting from international and local schools who help to design elements of the major project. lwb charrettes are characteristically interdisciplinary, co-creative, focused on stakeholder and user engagement and whole systems practices.

---

## 08 Studio Practice

Studio courses mimic professional design studio environments. Industry professionals guide students in three week-long studio projects that combine skill development in different design disciplines with focused individual and group deliverables that contribute to the major project. In Product, System, and Services students go through the phases of design research, concept creation, and design development in the context of a case study problem. During the process they learn technical skills, such as sketching, mind mapping, model-making, material selection, manufacturing processes, and presentation techniques. In their Product, Systems and Services studio students gain an understanding of the human-scale and of the daily lives of residents, while in the Environment Studio they look at how communities are organized at the level of architecture and urban planning. Finally, the Communication Design Studio looks at issues of branding and communication. At the end of the studio, as in all lwB projects, faculty and guests critique the final concepts.

## 09 Integrated Design Process

Integrated Design Process (IDP) aims to develop design solutions by using collaborative methods that bring all factors, issues and people together into a process of iterative co-design. IDP combined with human-centred design and design thinking techniques, can result in innovative whole systems solutions and high-performance design propositions.

Students receive training in all aspects of integrated design process and practice to acquire practical tools and tactics to be able to research, generate unique ideas, pitch a concept, engage in stakeholder consultation, complete design development and propose real-world implementation practices. They will learn aspects of triple-bottom line business models, that incorporate project management, resource management, and financial evaluation of social and economic returns.

## 10 Design Communication

Design communication is a methodology that enables an informed dialogue around complex ideas. Through the use of a variety of media, thoughts and ideas are visualized to communicate concepts to different stakeholders, partners, and greater audiences. This process helps to manifest design ideas into solutions. Through a series of courses, students learn the basics of communication in print, digital, and physical media. At various points during the year, students design events, installations, and information pieces that communicate stages of the major project to stakeholders, peers, and the general public. This helps to solidify design ideas, gain feedback from new audiences, generate research, and spread the word about the students' work.

# Educational Approach and Methodologies

Upon successful completion of the program, students will be able to:

---

**01**

Apply universal and sustainable design principles to complex global problems in order to create intelligent solutions that address environmental, social and economic challenges.

**02**

Manage an Integrated Design Process to deliver human-centred design strategy projects for government, corporations and non-profit organizations.

---

**03**

Design collaboratively in an interdisciplinary studio environment to complete environmental, communication, product, service and system design projects.

**05**

Adhere to the professional practices of a design studio in order to facilitate the success of design teams in achieving project results.

**07**

Liaise and manage the design process to provide solutions for clients including design, documentation, tendering, fabrication and delivery.

**04**

Apply primary and secondary research methodologies to the design process using a think/make practice model to achieve project outcomes that meet user needs.

**06**

Participate in a multi-phase design process in order to create a holistic, integrated, and realistic design project.

**08**

Present research results and design solutions to a diverse audience utilizing effective communication strategies.

---

# PART 2

---

# IwB Research

## Past Research Themes 2003–2018

# 17 Years of Design Research

**It's not about the world of design, but the design of the world.**

The Institute without Boundaries is dedicated to the development of original ideas and projects that push the envelope, stimulate intellect and actively experiment with new ways of thinking.

Over the past 17 years, the IwB has followed a research trajectory that has challenged students to projects of growing scales and complexity. Beginning with Massive Change - a broad investigation of the ability of design to affect positive change in the world - research themes have since been focused on expanding scales from human to global.

This section provides a brief summary of past research projects. As a student you will gain insight from and contribute to this ongoing body of knowledge, which is still rooted in the principles of our inaugural research project—to demonstrate how design can contribute to and shape positive human experiences.



**City  
Systems**



2009

**Regional  
Ecologies**



2013

**Future Ways  
of Living**



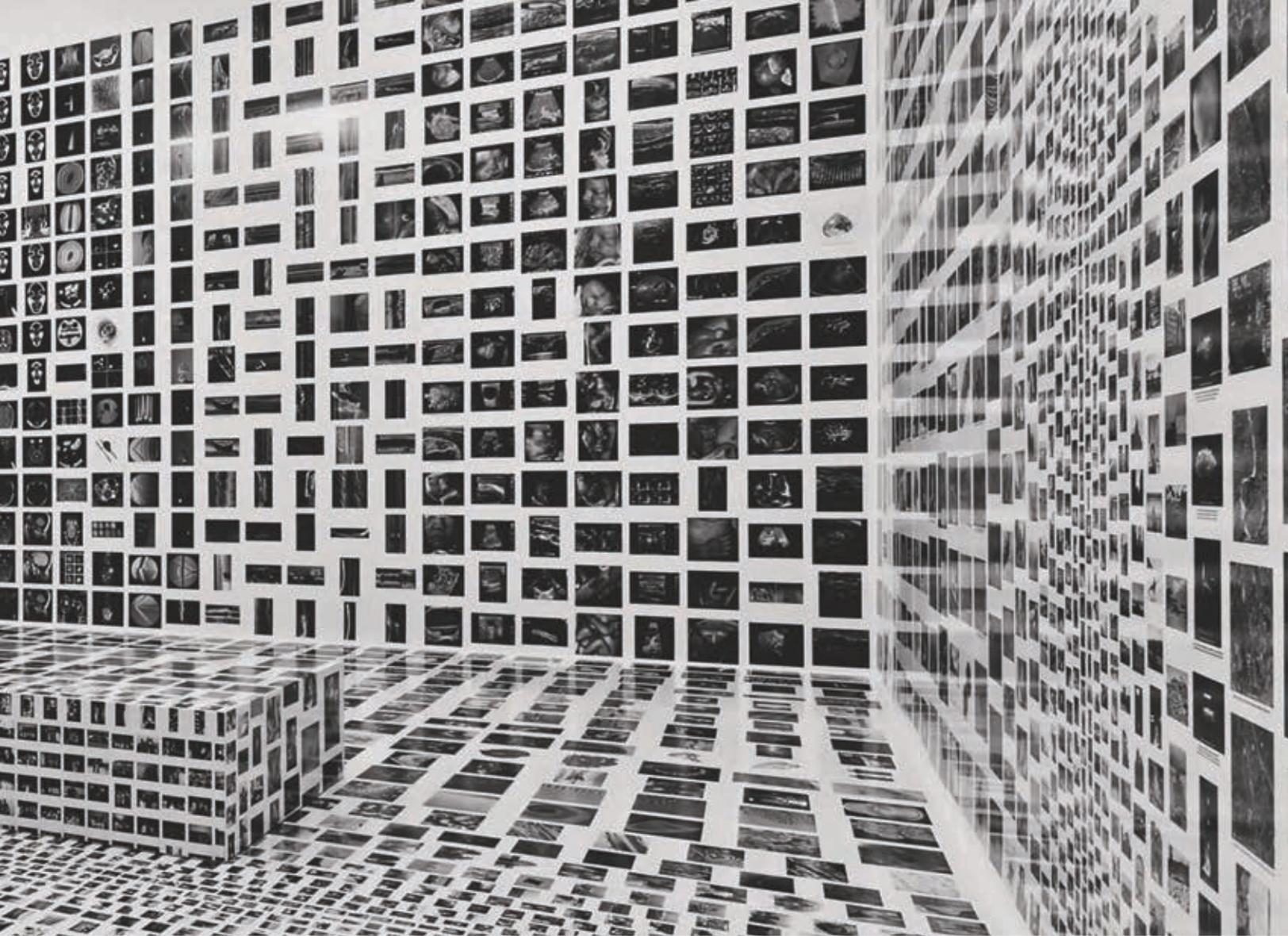
2018



2003–2006

---

## Massive Change



---

Massive Change was the first project completed at the Institute without Boundaries, investigating the future of global design. This project was commissioned by the Vancouver Art Gallery, and led by Bruce Mau Design.

Bruce Mau Design Studio acted as the classroom, empowering six students to research, write and design the Massive Change exhibition, website, radio show and book. Outcomes from this project sparked a discourse on the potential of design to influence positive change.



2006–2009

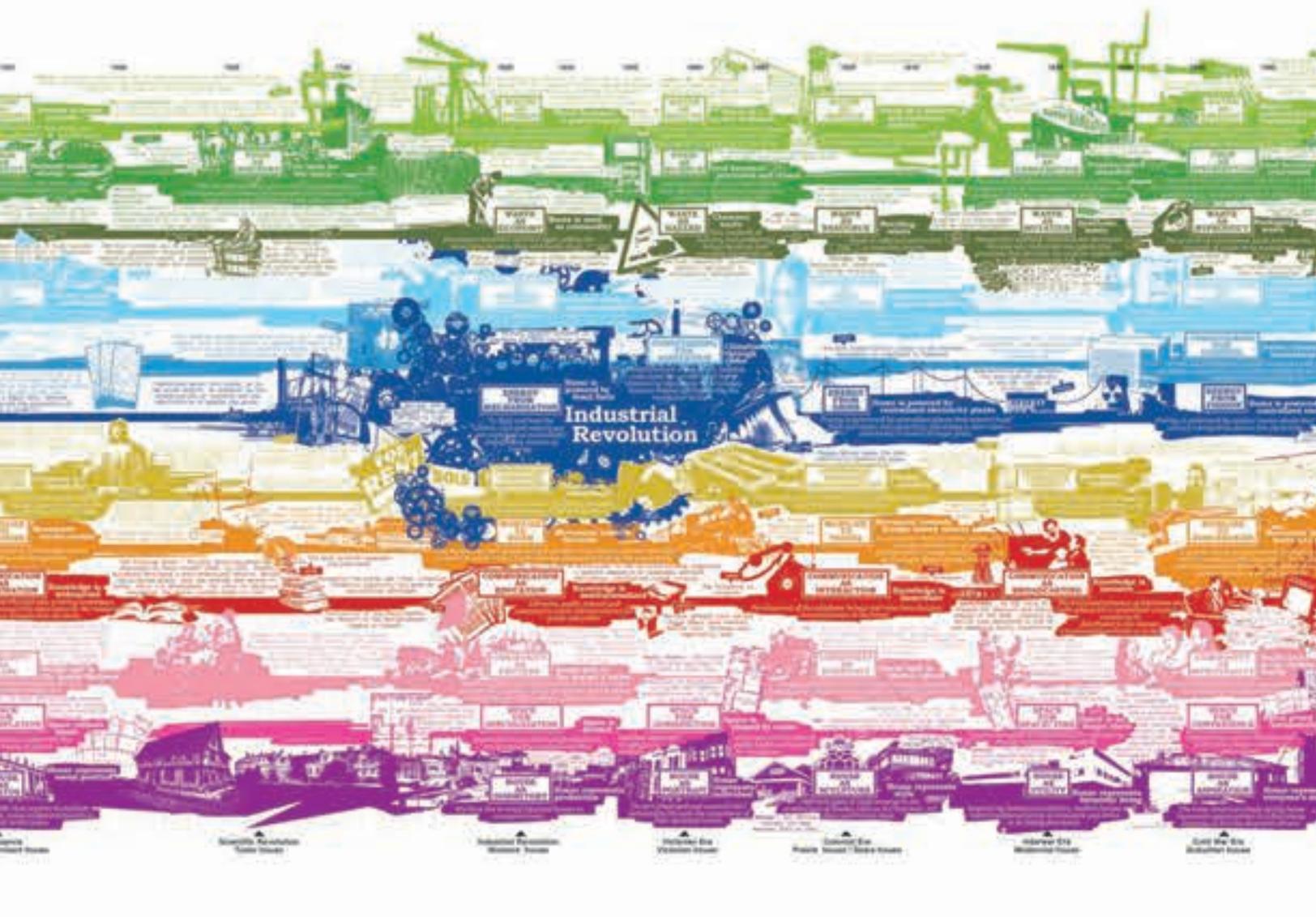
## World House

The World House project confronted the necessary evolution of shelter for coming generations by developing housing solutions based on principles of sustainability, accessibility, technological responsiveness and ecological balance.

This included major projects investigating and understanding systems patterns in housing, rural renewal and sustainable suburban development.

### System Patterns in Housing

The System Patterns in Housing timeline identified twelve systems of housing (from construction to identity), and significant changes in housing trends throughout history.



### **Canühome**

The Canühome emerged as an iteration the World Housing Living Model. This demonstration house commissioned by Canada Mortgage and Housing Corporation travelled across the country and was viewed by over 1,000,000 people.

### **Rural Renewal**

Working with the government of the Guenacaste region and the Costa Rican Ministry of Culture and Housing, the IwB was challenged to design housing solutions that could be constructed for \$7,500 USD. Housing solutions were required to respond to rural renewal efforts within the region, and respond to environmental and cultural forces. This resulted in a social housing prototype unit and a master planning strategy for regional development balancing local needs with global interests.

### **Renovate your Neighbourhood**

In the final year of the World House project, the IwB partnered with Habitat for Humanity Canada and Evergreen to “renovate” neighbourhoods in Toronto and to re-imagine sustainable suburbs that balance nature and people, income and access. The team researched, designed, and communicated a collaboration model for Habitat for Humanity and Evergreen that developed three ideals: greening, inclusivity and capacity building.



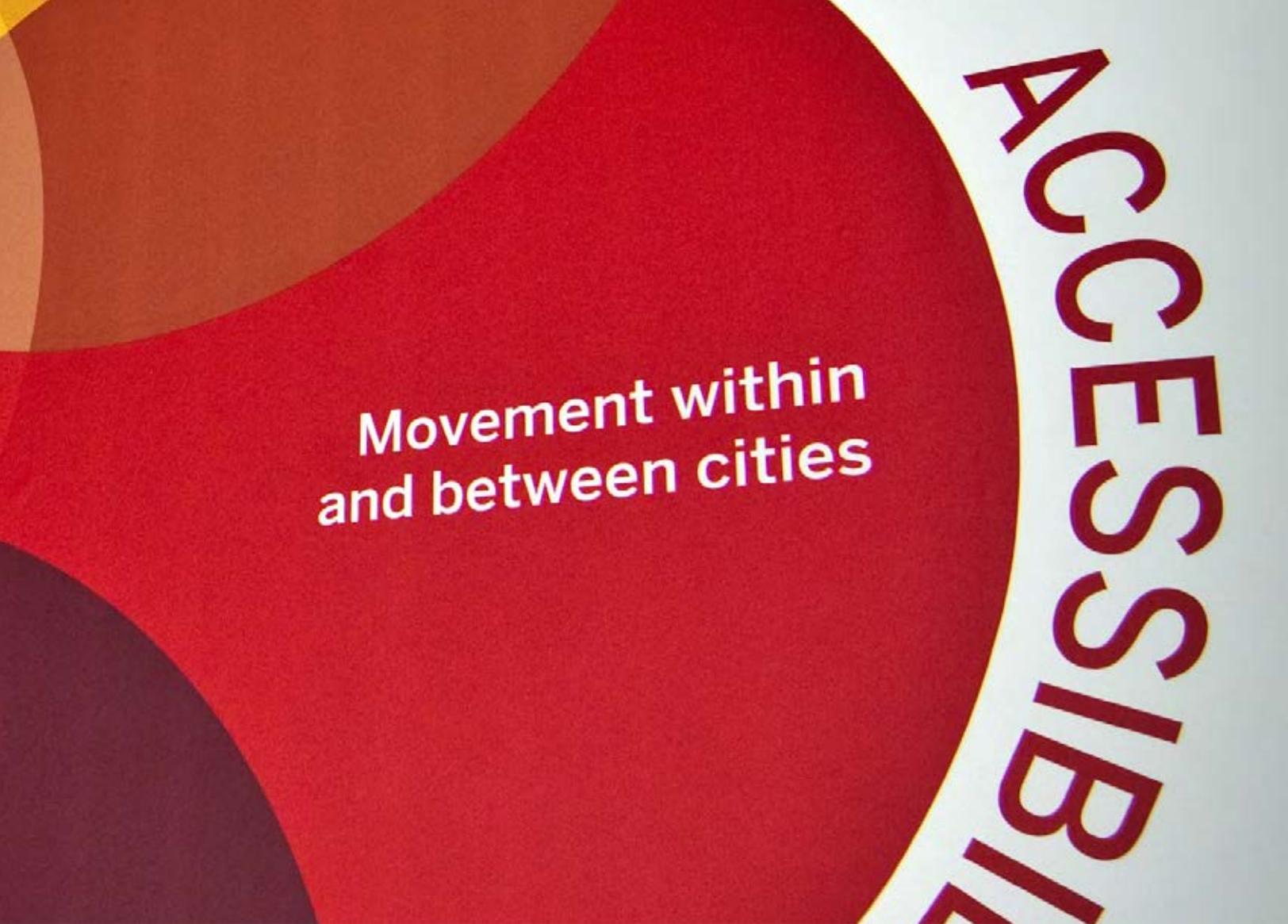
2009–2013

## City Systems

The City Systems project examined various factors and approaches shaping cities around the world, aiming to understand the interdependencies of city-building and proposing sustainable and resilient solutions to create more livable cities. As this project scaled—from house to neighbourhood, to city-wide services and infrastructure—the complexity of the issues and systems being examined also increased.

### **Universally Local**

Universally Local examined how large-scale, mid-century social housing infrastructure could be rejuvenated to respond to a world that may no longer be powered by fossil fuels and dominated by the personal automobile.



## Movement within and between cities

# ACCESSIBLE

---

### **Resilient Cities**

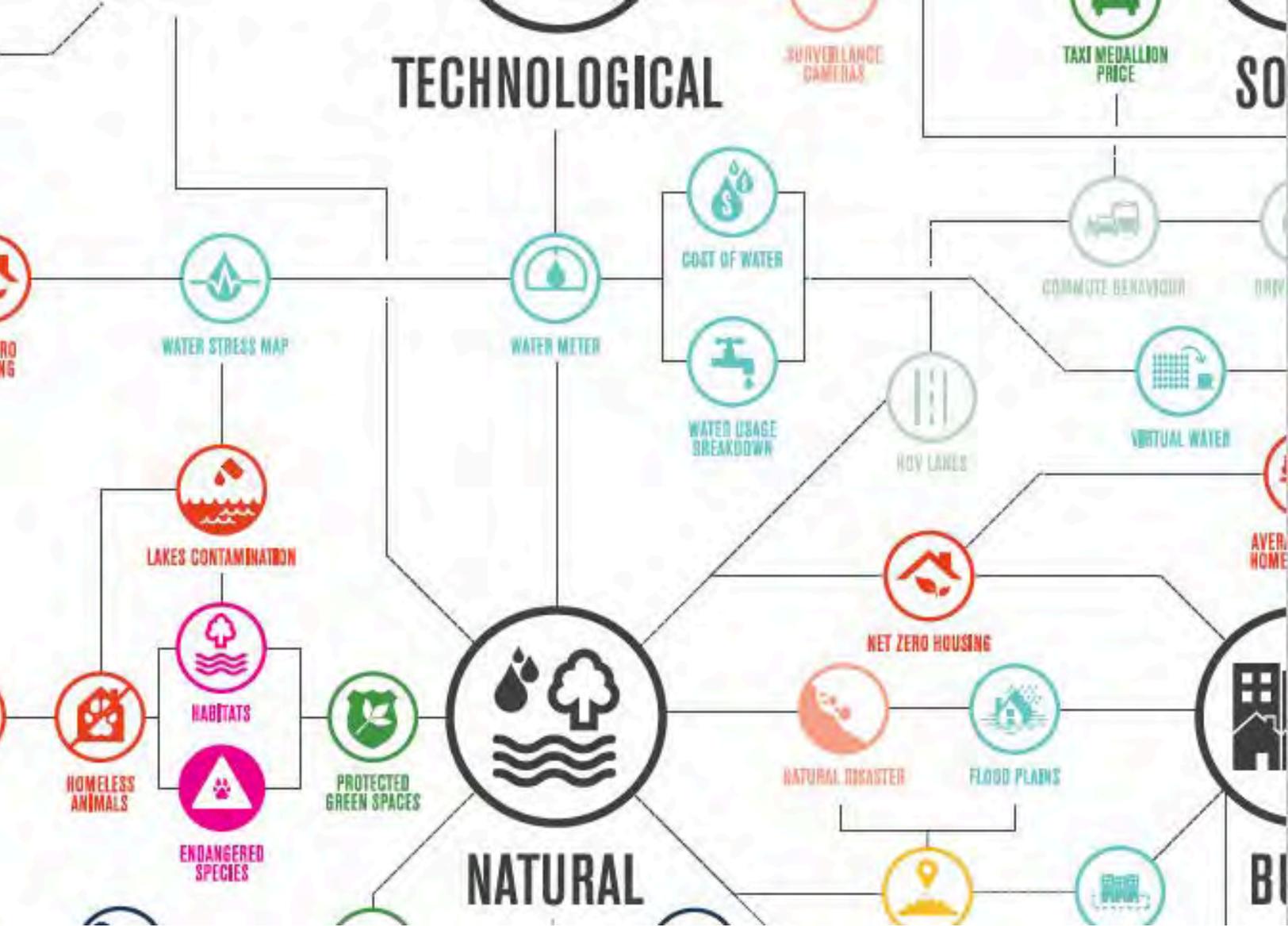
Resilient Cities investigated cities responding to crisis, and the ability to design city infrastructure that can aid disaster relief, or anticipate and respond to catastrophic environmental events to create safer, more resilient cities. Bottom-up approaches to city building were explored as methods to rebuild communities.

### **Edge Cities**

Edge Cities explored the suburban communities that manifest around major urban centres, which are designed in ways that are counter-intuitive to sustainable urbanization. Unique approaches and principles were developed to reimagine edge cities as vibrant hubs, complementary to major urban centres. A change lab was also established in Markham as a result of this project, enabling a collaborative innovation unit to reimagine the fabric of the city.

### **Digital Cities**

Digital Cities was an opportunity to design and develop multi-platform systems that reimagined public service delivery for the 21st century. Partnering with Dublin City Council, this project proposed a series of digital tools for citizen engagement and to promote transparency between government and residents.



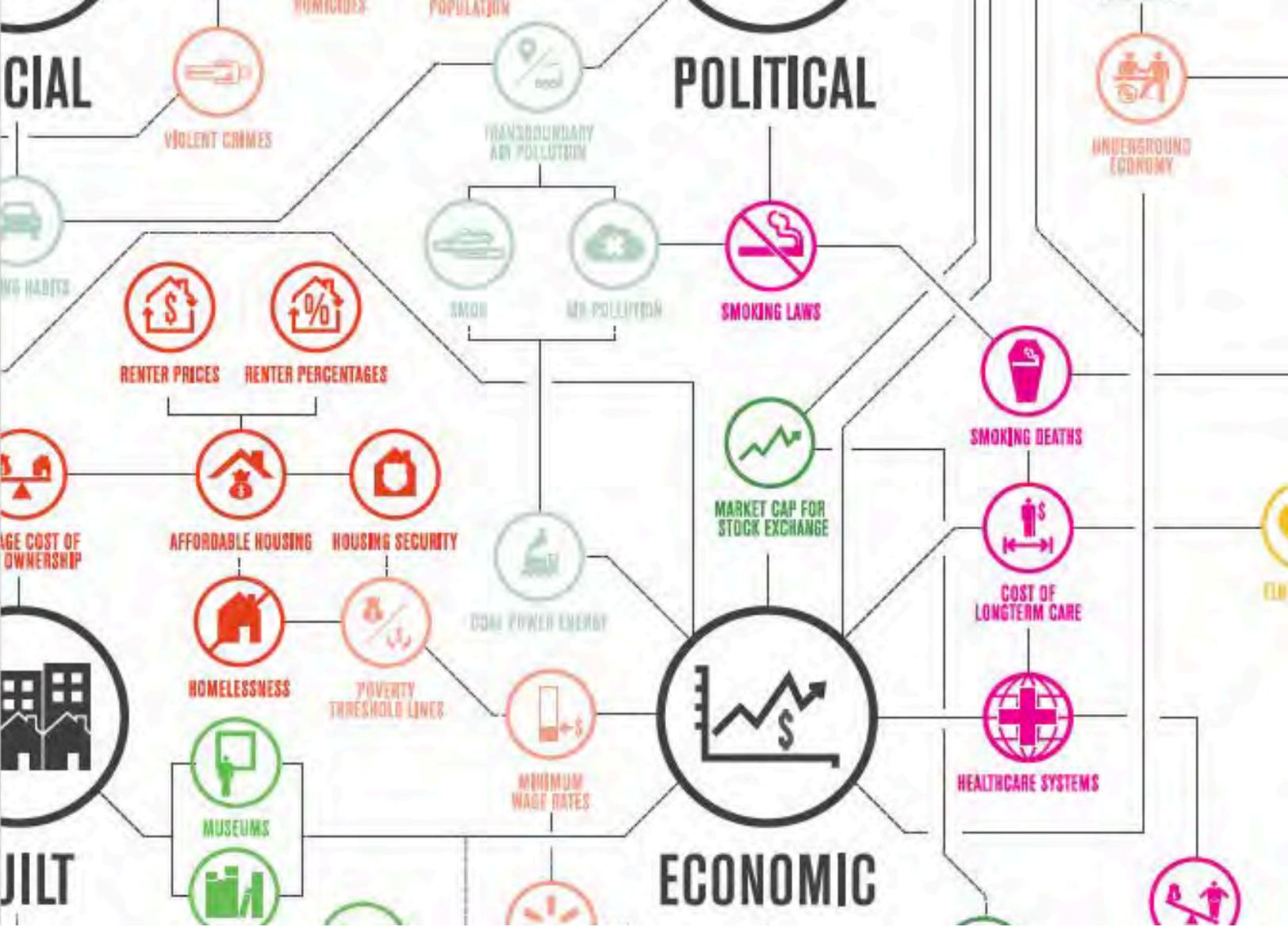
2013–2018

## Regional Ecologies

The Regional Ecologies project was a five-year investigation of the complex networks, and interconnected systems of infrastructure that define global regions. This considered urbanization beyond traditional municipal boundaries and developed projects that imagined new regional systems to foster prosperity, livability, access and resiliency.

### Gateway Cities

Gateway Cities investigated regional territories that act as gateways to migration and settlement, transportation, energy, economy and culture. Using the delta of Chicago, Toronto and New York City as a case study, this explored both mega-regional collaboration and competition between these cities to uncover emerging regional phenomena and new governance models.



### Divided Places

Divided Places focused on regions characterized by sharp and immediate differences in wealth, infrastructure, environment and density to uncover the effects of this segmentation on regional settlement, planning and development. A system framework for division was developed to connect divisions between physical and digital divides and introduce new regional approaches to service delivery that could bridge these divides.

### Interstitial Zones

Interstitial Zones examined, defined and mapped regional areas that act as the in-between spaces—characterized by low-growth, voids of social, economic and cultural activity and disperse human settlement. This aimed to understand how these zones affect regions and design strategies to provide them with new, complementary purposes to the regional hubs they fall between.

### Symbiotic Regions

Symbiotic Regions, explored the relationship of waterfronts to surrounding urban areas and the codependencies that foster socio-economic, environmental sustainability. Phenomena of symbiotic regions were defined and a series of pilot projects were developed to enhance the relationships and connectivity between waterfronts and adjacent regions.

### Continuous Communities

Continuous Communities emphasized the need to explore solutions for economic development, governance and development irrespective of existing municipal boundaries. Emerging economic clusters, communities are no longer bound to 20th century constructs and therefore outcomes centred around how to rethink how regions are communicated internally and to the rest of the world.

---

# PART 3

---

# Future Ways of Living

## Current Research Theme

### 2018–2023



2018–2019

---

## Future Ways of Living: Perspectives on Affordability

### RESEARCH OVERVIEW

In 2018–19, the IwB shifted its research focus to investigate the emerging economic, environmental, technological, societal and cultural forces shaping society and their impact on human experiences of affordability. As basic human needs become increasingly expensive in major urban centres around the world, this was an opportunity to use design as a method to understand and direct emerging forces to imagine more affordable futures—redefining and designing affordability in the context of the 21st century.

Over the course of the year, the students were challenged to:

- Define, visualize and communicate the universal factors affecting affordability.
- Identify emerging forces, trends, and insights that will impact the future of affordability.
- Create scenarios of affordability that demonstrate potential futures.
- Develop products, services, systems, infrastructure and communication mechanisms that demonstrate how we can influence the experiences of affordability through design action.



## PROJECTS

Throughout the year, the students developed a series of projects that tackled various aspects and challenges surrounding affordability.

### Meliorise

Meliorise is a strategy to rezone existing neighbourhoods and challenge Toronto's concept of a "stable neighbourhood," by introducing a variety of housing typologies and new neighbourhood services within the community. Meliorise unlocks value in underutilized spaces by promoting mixed use, mixed income and mixed tenure communities, expanding the choice of neighbourhoods that people can afford to live in. To achieve the components of a healthy neighbourhood, Meliorise works with city-wide rezoning, but examines the needs and opportunities of particular neighbourhoods. The plan implements mixed use zoning along neighbourhood edges, to bring more commercial, employment and residential spaces within walking distance.

### InPlace

Many seniors live on a fixed income and find themselves with too much house. As the cost of living rises, the aging population grows, and so will the population of low-income adults. This places a strain on healthcare systems to meet their needs and a community loss when unaffordability displaces them from their homes. Working with community hubs, InPlace is a program that empowers seniors to age in place. InPlace transforms a senior's home into a fully accessible space, adds affordable rental units that generate income and provides home care.

### Boost

Boost is a non-profit corporation with the goal of creating integrated strategies in order to ensure continuous alignment between workers and their jobs in order to unlock the value in people. With a focus on solving the reoccurring issues surrounding the crisis' that stem from technological advancements in the workplace. These are things like the automation crisis, the rapid evolution within industries, the skills gap which can cause large amounts of inequality both in terms of skills and critical earnings, the identity crisis that comes with losing a persons career, and the fact that our future is unknown leaving our future uncertain and under planned.



2019–2020

## Future Ways of Living: Ethical Smart City

### RESEARCH OVERVIEW

In 2019–20, the IwB partnered with Evergreen, Future Cities Canada and its Community Solutions Network to explore and evaluate the evolution of Smart Cities both nationally and globally and created a Framework to enable municipalities to design Smart Cities that are ethical, inclusive and sustainable.

Throughout the year, students were encouraged to consider the topics of data governance, public engagement and procurement to understand how we might be able to enjoy the benefits of smart city solutions while preserving values of residents.

Over the course of the year, the students were challenged to:

- Identify and expand the definition of Ethical Smart Cities.
- Gather, analyze and communicate national and global Smart City case studies.
- Identify the vulnerable populations that might be excluded from Smart City systems and create mechanisms that will enable them to participate.
- Design and develop an Ethical Smart City Framework and a series of products, services and systems that address Smart City requirements.



## PROJECTS

The students proposed the Ethical Smart City (ESC) Framework, ESC Publication and Website as well as three design proposals that responded to challenges faced by communities across Canada.

### The ESC Framework and Toolkit

The ESC Framework puts the community at the centre of decision-making process and helps municipalities engage with their residents. The five-step process of the ESC Framework resulted from applying design thinking to the needs and processes at the municipal level. The Ethical Smart City Toolkit is a set of tools that have been created and curated to supplement the 5-step process of the ESC Framework. The research insights and a comprehensive set of tools and framework have been captured in the Ethical Smart City Playbook and Website.

### Eden Park Project – County of Simcoe

The Eden Park Project explored how the ESC Framework can be used to mitigate the effects of seasonal flooding in the County of Simcoe. The Project proposes a nature-oriented approach to create sustainable solutions. Its aim is to re-establish the balance between nature and human activities through walking trails, marshes, puddle ponds, community gathering spaces and farmers' markets.

### HiRE – City of Mississauga

HiRE mobile studio and digital platform is a design solution to help newcomers in the City of Mississauga obtain long-term employment. HiRE is an inclusive and accessible service that provides person to person connection through soft skills training, guidance, and lifelong learning. This solution consists of two components, a mobile studio and a digital platform. The HiRE mobile studio will go around neighbourhoods in Mississauga offering newcomers employment services that facilitate opportunities for long-term employment.

### Grow Akwesasne – Mohawk Council of Akwesasne

Grow Akwesasne integrates physical, social, and technological infrastructure to support a holistic health system to tackle type 2 diabetes rates. Grow Akwesasne is a health system that combines multiple features to create a holistic ecosystem. The main component of Grow Akwesasne is the five locations of the Greenhouse and Community Spaces. These hubs are greenhouses that also serve as community spaces and each space is paired with a bus that doubles as a mobile market. The Grow Akwesasne system, connected through a digital application, not only feeds the community on Cornwall Island, but also supports the community's social, cultural and physical health goals.



**HOW  
MIGHT WE  
IMAGINE  
AND  
RETHINK**



# FUTURE WAYS OF LIVING & AGING IN PLACE?

# 2020–21

## Future Ways

### of Living and

### Aging in Place

#### **FUTURE WAYS OF LIVING**

As we transition to the 21st century, global forces such as geopolitical fragility, mass migration, income inequality, rapid urbanization, economic restructuring, precarious employment, climate change, and exponential technological innovation are challenging our existing societal constructs and transforming the ways we live. This can have both positive and negative impacts on our human experiences, and as designers we often react to these forces rather than anticipate them to achieve our collective aspirations.

Future Ways of Living is both a research method and a call to action developed to foster anticipatory design. As a research method, it aims to investigate and visualize the past and present forces shaping society, which inform an understanding of potential futures. As a call to action, it challenges us to imagine and create what ought to be, rather than what exists. This approach encourages the development of tangible design outcomes that can contribute to more responsible, humane, sustainable, democratic, and resilient futures.

Throughout the 2020–21 academic year, Living and Aging in Place will be explored in the context of Future Ways of Living - encouraging a holistic, forward-thinking approach to inform design outcomes.

#### **LIVING AND AGING IN PLACE**

A profound demographic shift is happening perhaps for the first time in recorded history that will see a higher percentage of aged people and people with disabilities and illnesses living for longer periods of time and therefore making up a more significant part of the population than previously. The result will be a lower percentage of people in the current range of working years supporting more and more people in “retirement”. Combined with a growing pattern of lower fertility around the globe and a confluence of factors resulting from the COVID-19 pandemic, there will be an enormous strain on society and the healthcare system. Recently, we have seen the significant impact of COVID-19 on older adults, seniors and those in vulnerable populations. The pandemic has resulted in the highest death rate in seniors around the world, has demonstrated the systemic issues existing in society and has brought to surface major problems in long-term care homes. According to the National Institute on Aging, 3,436 residents and six staff members of long term care settings have died of COVID-19 as of May 6th in Canada (Toronto Star, Tonda McCharles). This figure demonstrates that as of this date, 82% of elderly Canadians have died in long term care homes.

In 2020–21, the Institute without Boundaries in partnership with the Community Services and Health Sciences (CSHS) at George Brown College will explore how we might be able to respond to these challenges by drawing from the interdisciplinary capabilities at the IwB to focus on imagining new products, services, systems, and infrastructure required to help seniors and people living with disabilities to stay in their homes for as long as possible using intelligent, sustainable, inclusive, affordable and ethical solutions. In the process, the IwB will develop a prototype environment that will demonstrate what can be done to help people continue to live healthy and productive lives at home.

## PROJECT BACKGROUND

According to a 2017 report by the United Nations' Department of Economic and Social Affairs, the aging population around the world is increasing in numbers and make up a growing share of the population in every country (World Population Aging). The number of older persons is expected to double by 2050, reaching nearly 2.1 billion, indicating that there will be more older persons aged 60+ than adolescents and youth at ages 10 – 24 by this time. This has implications for nearly all sectors of society such as labour and financial markets, the demand for goods and services such as housing, transportation and social protection, as well as family structures and inter-generational ties (World Population Aging, UN, 2017).

In Canada, as the baby boomer generation ages into their senior years and with the surge of immigration, there will be further strains to the already overburdened health and social services of Ontario as well as across the country. According to the government of Ontario, By 2041, it is projected that 25% of Ontario's population will be 65 years or older, almost doubling from 2.3 million seniors in 2016 to 4.6 million seniors (Constructing an Institute for Living and Aging at Home, 2020). Additionally, in 2019, the initial predicted influx of seniors hitting the benchmark age of 83 began to increase, which is a significant milestone as this is the average age at which people start to enter long-term care homes (Royal Bank of Canada, 2019).

However, residing in long-term care homes can pose risks to the health and well-being of seniors as evident by the impacts of COVID-19. As of May 2020, 81% of deaths due to COVID-19 were in Canada's long-term care homes bringing to surface several factors impacting quality of life of senior in these centres such as a frail and elderly resident population, old buildings with little space for separating the sick from the healthy, cramped living quarters, and frequent contact between residents and caregivers (Washington Post, Coletta, 2020).

While 77% of older Ontarians reported being in good health, aging at home and only consuming six percent of our annual spending on health care, there is a small minority of older adults which consume the bulk of our health care budgets and are struggling with diagnosed comorbidities and many complex, interrelated conditions contributing to their illnesses. In addition to the aging population, it is important to consider the needs of those who are living with disabilities to facilitate healthy and safe living at home. People living with disabilities require greater access to products and services, and often have difficulty accessing healthcare and other social supports (Constructing an Institute for Living and Aging, 2020). The number of Canadians who reported having a disability increased by roughly three-quarters of a million people between 2001 and 2006 (White Paper, Living and Aging at Home, 2020).

This demonstrates that there is a growing population of both seniors and the disabled people who need adequate, affordable, sustainable, and accessible services and support to meet their needs. However, it is important to note that the needs of the older population will greatly differ from the needs of the disabled people. While people may acquire limitations and disabilities as they age, meaning they age into disability, there is a growing population that age with a disability such as cerebral palsy, spina bifida, spinal cord injuries, partial sight and hard of hearing, and multiple sclerosis. They will face unique healthcare needs and require greater design considerations to enable them to Live and Age in Place (Aging with a Disability, Demand a Plan, 2018).

Living and Aging in Place is traditionally defined as the “ability to live in one’s own home and community safely, independently and comfortable, regardless of age, income, or ability level, enabling older adults and seniors to live and participate in the communities they’ve made their homes in” (Age Friendly cities and Aging in Place, Rick Hansen Foundation, 2018).

Other benefits to Living and Aging in Place include:

- Maintained privacy
- Living in a familiar setting
- Feeling secure
- Access to activities they may enjoy
- Greater quality of life
- Access to Personalized Care
- Less risk of acquiring illnesses

It is important to ensure that the older population and people living with disabilities have the design solutions they need to lead healthy and productive lives at home. Through this project, the students will:

- Use design research, thinking and strategy to conduct a year-long investigation of the needs of the older and the disabled populations in order to lead healthy and productive lives in place.
- Curate a series of national and international case studies that will help develop meaningful products, systems, services and environments.
- Design a prototype environment for seniors and people living with disabilities as well as a series of products and services that will provide the necessary tools and resources to their caregivers.

## RESEARCH QUESTIONS

While exploring the topic of Living and Aging in Place, the 2020–21 cohort will build will aim to answer the following research questions:

- How might we design tools, products, services, systems, and environments that will increase the quality of life for our main user groups?
- How might these design solutions help the older and the disabled populations maintain their independence while Living and Aging in Place?
- How might we use assistive technology across their life course to help solve challenges in Living and Aging in Place?
- How might these technologies be inclusive, adaptable, and meet the current and future needs of the main user groups?

## CONSIDERATIONS

The following are areas of considerations as the students embark on the Major Project:

- How do the needs of adults aging into disability differ from older adults living with disabilities?
- How can we improve service delivery and reduce the burden on personal care workers?
- How can we retrofit current housing solutions with innovative products, services and systems to create optimal living environments?
- How can the proposed solutions meet the emotional, cognitive and physical needs of older adults and the disabled?
- How can we design with and for older adults?

## **PROJECT GOALS**

Over the course of this year, students will be challenged to:

- Identify and expand the definition of Living and Aging in Place.
- Identify the physical and digital requirements in designing products, services, systems, and environments to increase the quality of life for older adults, people with disabilities and their caregivers.
- Identify personas and scenarios demonstrating the needs, values, painpoints and areas to help the main user groups.
- Gather, analyze and synthesize national and international case studies demonstrating Living and Aging in Place products, systems, services, and environments and create visualizations to communicate insights.
- Design and develop a series of products, systems, services, and environments to help people live and age in place.

## **PROJECT OUTCOMES**

Throughout the course of the year, students will collaborate with faculty, advisors, and staff to use human-centered design and create solutions that will enable older adults and people living with disabilities to lead healthy and productive lives while Living and Aging in Place. These outcomes will include project proposals related to these three areas:

- Age-related products and services: design products and services that will respond to the physical, emotional and cognitive needs of older adults and persons with disabilities.
- New housing models and environments: creating a prototype housing unit to demonstrate what can be done to help people live and age at home.
- Care Technologies: identifying the appropriate technologies and tools to provide additional resources to caregivers and help facilitate Living and Aging in Place.
- Knowledge Mobilization Toolkit: to help synthesize and communicate the year-long research to stakeholders, Committee members and the general public through various communication vehicles such as a publication and/or website.

# Meet the 2020-21 Faculty



## **MATT HEXEMER**

**Major Project Lead (MPL)**

*Executive Creative Director, Huge Inc.*

In 2003 Matt Hexemer founded Apparatus inc. focused on integrating visual, digital, environmental, and industrial design, into powerful user experiences. After a decade of growth Matt merged his company with brand and communication agencies Amoeba Corp. and Oxygen Design to form Jackknife Design, further evolving his multi-disciplinary, user centred approach to business and design. In 2017 Matt joined Huge Inc. as Executive Creative Director for Physical Design charged with connecting vision to execution with a particular focus on intelligent products and environments.

Matt has thoughtfully led projects in design, design strategy and innovation resulting in over 100 consumer products launched to market and over a dozen patents. He has worked in the automotive, water technology, consumer wearables, mobile device, and sporting goods industries, collaborating with world class brands like Nike, Google, Canadian Tire, Land Rover, Thule, Trek, Red Bull, Neptune and Kobo. Always insightful and dedicated to the end user, Matt is at his best when connecting the dots between brands, technology, and people.

---

### **Major Project Lead**

The role of the Major Project Lead (MPL) will be focused on helping students cultivate and accelerate the vision of the Institute throughout the academic year. Responsible for overseeing the delivery of student work, the MPL will help focus thinking, knowledge development and the integration of content in form in an effort to help students effectively communicate design strategies reflective of the Living and Aging in Place thematic. The MPL will provide recurring in-house and one-on-one instruction to the 2020-21 Interdisciplinary Design Strategy cohort with a clear focus on creative direction of the Major Project deliverables.

Providing momentum for the academic programming, the MPL will commit to meeting met with students weekly twice a week to brainstorm project ideas, oversee key milestones and deliverables, and provide regular desk critiques.

More specifically, the MPL will provide insights, suggestions and feedback, including advice on applicability of specific ideas and project focuses, and discussions and feedback on project progression. The MPL will have the freedom to deliver lectures and/or workshops where fit, and provide guidance on material over the course of the academic year, and should attend key milestone presentations, charrettes and presentations.

Where possible and appropriate, the MPL will provide students and the lwB with opportunities for connecting with key design stakeholders and experts alike. Similarly, they will increase the visibility of knowledge generated by the students in and to various networks, including but not limited to marketing, media and/or public relations networks.



## **JOHN G. JUNG**

### **Expert in Residence (EiR)**

*Chairman and Co-Founder, Intelligent Community Forum (ICF)*

John is a professional, award-winning urban planner, urban designer, economic developer, author, visiting professor and global speaker on planning, development, urban design and economic development related issues, especially related to Smart Cities and Intelligent Communities. John is a pioneer in the Smart City movement, having worked in it since the early 1980's. John is the former President and CEO of several of Canada's largest economic development organizations in Greater Toronto, Calgary and Waterloo Region; a former senior urban planner, urban designer and developer in many cities in Canada and abroad, including leading the planning and development of Toronto's waterfront area for many years; marketing the GTA to the world; and as an advisor on urban development and economic development to global leaders around the world for over the past three decades.

John was involved with the Smart Cities Challenge in Canada and its related Support Program, Future Cities Canada and the Community Solutions Network. He is also an advisor to ICF's Institutes globally and their related national organizations. In addition, he is leading a major international program on creating a new Smart City in Asia.

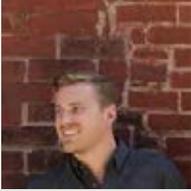
John has extensively written on topics related to planning, economic development and international Smart Cities for Canadian and global publications such as MyLiveableCity and Public Sector Digest. He is an author and co-author of reports, books and articles widely read on these topics, including Brain Gain and a new book coming out soon called Innovative Solutions for Creating Sustainable Cities (Cambridge Scholars, UK). John's extensive global exposure leading significant initiatives and evaluating cities globally on behalf of ICF and his own consulting firm, S2I, have helped to raise awareness of the Smart City and Intelligent Community movement and helped communities around the world to become better, more livable cities for their citizens.

---

### **Expert in Residence (EiR)**

The role of the IWB Expert in Residence (EiR) will harness the expertise of aging and living in place as a subject-matter expert, with particular attention to age-related products and services, new housing models and environments and care technologies. The EiR will help accelerate thinking, knowledge development and connecting opportunities for students to address critical questions on aging and living in place. Providing a connection to the thematic to the curriculum content, the EiR will provide recurring in-house and one-on-one support to the 2020-21 Interdisciplinary Design Strategy cohort and project groups respectively.

The EiR will commit to meeting with students 1-2 times a month (minimum of 4 times per term) to provide specific insights, suggestions and feedback. More specifically, the EiR will offer suggestions on resources (ex: events, texts, key figures etc), advice on applicability of specific ideas and project focuses, and discussions and feedback on project progression and research trajectories. The EiR will have the freedom to deliver lectures and/or workshops where fit, and provide guidance on material over the course of the academic year, and (pending availability) should attend key milestone presentations, exhibitions etc. Where possible and appropriate, the EiR will provide students with opportunities for connecting with key stakeholders and experts alike. Similarly, they will increase the visibility of knowledge generated by the students in and to various networks.



## **GRAEME KONDRUSS**

### **Major Project Advisor (MPA)**

*Manager, Academic Space Planning and Design, George Brown College*

As a designer and strategist, Graeme uses his array of experiences in architecture, planning, project management and interdisciplinary design strategy to focus his academic and professional career on the study of space and its impact on social behavior. In doing so, he has helped to develop and facilitate dozens of design charrettes for public and private sector organizations in Chile, Denmark, Ireland, Italy, the United States and Canada.

Currently, Graeme is the Manager of Academic Space Planning and Design at George Brown College where he continues to apply design methodologies and engagement strategies to plan and execute large-scale campus expansion projects.

Graeme is an alumnus of the IwB and holds a MA in Interdisciplinary Design Strategy.



## **NAZANIN HOMAYOUNFAR**

### **Major Project Faculty**

*Academic Coordinator, Interdisciplinary Design Strategy Program*

Nazanin is a philosopher, design strategist, and researcher. Her interest in local and global development and the improvement of the human condition is rooted in her study of Philosophy and Political Science at the University of Toronto. Nazanin's background in the Interdisciplinary Design Strategy program at the Institute without Boundaries (IwB) provided her with design thinking tools and techniques necessary to turn her theoretical knowledge of the human condition into concrete and practical solutions.

She has worked on a multitude of projects at the Institute without Boundaries, where she is currently the Program Coordinator. These include Canada 2067 Youth Charrettes in partnership with Let's Talk Science and Groundswell Projects, Density Visualizations Around the Greenbelt in partnership with Department of Unusual Certainties, Future of Fintech Charrette, Connected and Unbound International Charrette, and the Future Ways of Living 3 Charrette. Nazanin enjoys bringing together interdisciplinary stakeholders to imagine solutions for real-world problems.



---

## **MONICA CONTRERAS**

*OAA, Architect, Planner, Project Manager*

Monica Contreras is a Registered Architect and Project Manager with extensive experience in developing strategic, complex projects, from stakeholder consultation, planning, design through to construction.

She is an expert and visionary human-centered and systems design specialist, with in-depth professional experience with integrated design process, working with complex organizations committed to design excellence in planning and architecture, integrating technology and sustainable practices for our built environment. This depth of wisdom is a result of the full scope of roles as a development agent, including obtaining the highest and best value from new developments, as an architect to obtain municipal planning and designing new residential communities, as an in-house project manager and construction manager redeveloping and managing campus assets, including heritage buildings.

In addition, Monica has 12 years of teaching experience at the School of Design in the Interdisciplinary Design Strategy Program at George Brown College and 8 years at the Schulich School of Business MBA program in Real Estate. This experience has included developing course curriculum, team teaching, contributing to publications and exhibitions, participating in design charrettes and being involved with student projects with industry-partnering for real-world challenges.



---

## **HEATHER DAAM-ROSSI**

*Innovation Designer, The Moment*

Heather Daam-Rossi is a designer and design researcher that works with people. She believes that different disciplines can share knowledge towards a common goal and empower people as experts of their own knowledge and experience. She is interested in understanding the role a designer plays in bringing together different stakeholders in the design process and focusing the process around the stakeholders. Her strengths include leading workshops, encouraging people to think together, and generating enthusiasm in the process.

Heather has spent most of her professional career working in the Netherlands where she received her Master in Design 'Man + Humanity' at the Design Academy Eindhoven. She is a former principle designer at T+HUIS, a social design and educational community organization. She has also worked as a Design Research Associate for the Design Academy Eindhoven.

Heather has always carried out many independent projects in the fields of social innovation, social design, and education, and has cheerfully presented and been published internationally.



---

## **ROBERT GIUSTI**

*Associate Manager of Design Research, Fjord Dublin*

Robert is the Associate Manager of Design Research at Fjord Dublin, which is situated within The Dock - Accenture's flagship global innovation hub. His work focuses on complex socio-technical systems, leveraging emerging research methods to surface human insights and behaviours that inform meaningful user experiences. At The Dock he is also a core member of the Conscientious Innovation team - developing new approaches to surface bias, mitigate risk and increase fairness of algorithms across a variety of industry applications.



---

## **SIMON MHANNA**

*Innovation Designer, The Moment*

Simon Mhanna is an innovation designer and design researcher. He holds a BA in Design, MSc in International Project Management, with an emphasis on International Marketing/Branding, and an MA in Media Studies. He has worked for clients and companies in MENA, the Gulf, Europe, Africa and Canada, and collaborated with leaders and teams across industries from start-ups to multinationals, not-for-profit and public sector. His focus revolves around using processes, research and insights to provide creative and strategic solutions for new and existing businesses, and to enable multidisciplinary and stakeholder collaborations for social and organizational innovation.

He has facilitated stakeholder engagement sessions and conducted design research studies for various clients to develop innovative approaches to affect social change, and to design innovation strategies and roadmaps. Simon is skilled at designing processes, innovation systems and service design toolkits. He has over a decade of experience in mapping, analyzing, synthesizing and visualizing user data and research findings and integrating them efficiently into new designs and innovation strategies development.

Simon works as Innovation Designer at The Moment, an innovation studio that has helped leaders of organizations and teams across sectors to adapt, respond and lead innovation efforts. He is a Projects Lead at the Toronto Design Offsite Festival where he focuses on creating a space to engage the community in discussions and workshops around critical issues in design and society. He is also a member of the International Service Design Network.

He has taught a range of design and communication courses in various universities, published and presented his research at several international conferences, conducted workshops and moderated creative talks.



## **DEVIKA NARAYANI PRAKASH**

*Design Researcher, Institute without Boundaries*

Devika Narayani Prakash is a UX designer, strategist, and thinker currently working as a Design Researcher at the IwB with a variety of projects in the realm of service design, experience design and systems thinking. Her passion is exploring how design, technology and urbanism can intersect to create endless opportunities for desired futures. She has worked in India and Canada and has over six years of experience with social design, public engagement and research.

Her formal training is a mix of international development from the University of Sussex in England, Interdisciplinary Design Strategy from George Brown College and a Masters in Interdisciplinary Design Strategies from IADT, Dun Laoghaire. The mix of international development and design has helped her build a unique toolkit of research methods to enhance her design practice. She believes in co-design as her design philosophy and works towards involving as many people into the design process.



## **SUSAN SPIEGEL**

*Architect OAA, FRAIC, TSA, B.A, B.Arch (EQ.M.Arch)*

Susan Spiegel is an Architect practicing in Toronto for over 30 years. She has created Susan Spiegel Architect Inc. (SSA Studio), a design studio rooted in community building and innovative thinking to push forward actionable projects. Susan currently is the OAA Senior VP & Treasurer (Ontario Association of Architects), and was part of the Core faculty at George Brown College (GBC) School of Design at the Institute without Boundaries (IwB) for 10 years. Susan's practice is a Change Agent in the current wave of new practices which blend Architecture, Landscape Architecture, Urbanism, Social Activism, System Design, Community Based Design, Environmental Ecology, Design Research, Teaching and Writing. Her work crosses many disciplines to what she calls 'Social Architecture in the Public Realm'.



---

## **LAUREN WICKWARE**

*Graphic Designer and Art Director, Lauren Wickware Design*

As one woman design studio Lauren Wickware partners with artists and cultural institutions to create a broad range of materials with a focus on publication design. Lauren's work has been recognized by The Advertising and Design Club of Canada, the AIGA, the Alcuin Society, the Ontario Association of Art Galleries, Registered Graphic Designers of Canada and Applied Arts.

A graduate of OCAD and Parsons School of Design, Lauren cultivates the next generation of designers as a faculty member of the Interdisciplinary Design Strategy and Graphic Design programs at George Brown College's School of Design, as well as the Communication Studies and Multimedia program at McMaster University. Outside of the studio Lauren is a founding member of Collective Form, a community of commercial artists who aim to foster relationships by hosting events that build a robust community for emerging and longstanding visual communications professionals.

---

## **ADMINISTRATION AND STAFF**

**Luigi Ferrara**

*Dean of the Centre of Arts, Design and Information Technology  
Director of the Institute without Boundaries*

**Ana Rita Morais**

*Chair, School of Design*

**Graeme Kondruss**

*Manager, Special Projects, IwB*

**Gary Hanrahan**

*Academic Operations Manager, School of Design*

**Nazanin Homayounfar**

*Academic Coordinator, IDS*

**Amanda Nasturzio**

*Design Researcher, IwB*

**Devika Narayani Prakash**

*Design Researcher, IwB*

**Michael Madjus**

*Communications Coordinator*

# Meet the Class of 2020–21

---

## **LJA BOLONGAITA**

*Honours BA Economics and Global Studies, Wilfred Laurier University*

Lja is a UX Designer with a passion for the startup ecosystem and inclusivity in tech. She is excited to join lwB this year to further her education and work on an exciting challenge with her colleagues.

Coming from a background working in the public sector, her interests gravitated to thinking about the technologies of tomorrow. After graduating, she transitioned into the world of design through helping startups refine their offerings to better align with their users.

She now works as the Product Design Lead for a food-tech startup called MyPalate, and volunteers as an in-house mentor at an incubator called The Forge.

---

## **CHERISH DE MOURA**

*Certificate, New Media, Ryerson University  
Bachelor of Arts, York University*

Cherish De Moura blends design and meaning to create beautiful human-centred results. Cherish has a keen eye for design, is tenacious yet compassionate, and believes that words hold power. This is likely why communications and marketing comes naturally to her.

Cherish understands her clients and end-users and focuses on making her team shine. Her approach is the x-factor that helps shape positive outcomes and inspires high-quality, high-value products.

Cherish has 15+ years of professional experience and was recently awarded for Excellence in Leadership and Outstanding Inspiration. Her legacy will be the positive impact she makes on others and the world.

---

## **CHANDLER FITZPATRICK**

*Honours Bachelor of Arts, University of Toronto*

Chandler Fitzpatrick describes themselves as ‘queer, mad, and neurodivergent as the day is long.’ They hold a diploma in Liberal Arts and completed their degree in Women and Gender, Equity, and Disability Studies at University of Toronto. They are deeply committed to the framework of disability justice and - although an exceedingly logistical, systematized, and critical thinker - emphasize the productive nature of thinking queerly for design. Chandler promotes interrogating and that which we think we know, anchoring design approaches in the perspectives and directives of embodied knowledges, and creatively generating solutions to (re)build or hack access within limitations or instituted protocols.

---

## **KANIKA KAMUR**

*Bachelor of Architecture, Indira Gandhi National Open University*

Kanika is an Architect by education who has spent the last 5-years in the spatial and experiential design of spaces. She is seen as a dedicated and highly motivated professional with extensive experience in design, production, and execution of various well-known events, festivals, and exhibitions of varying scales. Collaborators have described Kanika as someone with “high levels of passion” and “extremely detail-oriented”. Kanika strives hard to keep up with the fresh trends of the industry and the magic that can be created with ephemeral architecture.

According to Kanika, “architecture and design are intertwined”. The innate knowledge that comes with understanding the basics of architecture has helped her greatly in becoming an accomplished designer providing her with a sense of space, scale, and style.

She has a knack for designing art for the Public as it gives her immense satisfaction and thrill to see a person create moments and experiences with art curated by her. Her dream is to take her creativity to the next level with the Interdisciplinary Design Strategy course at the Institute without Boundaries, George Brown College.

---

## **JASPINDER KAUR**

*Bachelor of Design, Interior, Guru Nanak Dev University  
Master of Arts, Fine Arts, Guru Nanak Dev University*

Born and raised in Punjab, Jaspinder Kaur is a seasoned and motivated interior designer specialized in bringing value to clients and fostering positive relations with coworkers. She works tirelessly in completing projects on time as well as focuses on the long-term growth. Her focus has been on residential projects but is open to doing projects in the commercial space as well. For her, designing is essentially an assembly of many unique pieces into one cohesive whole in order to get rewarding experience of the end product. She hopes to continue her track record of excellent leadership and collaboration in coming future.

Having an artistic vision and passion about expressing her thoughts and ideas further led her to pursue Master of Arts, where she refined her skillset. Painting landscapes, still life and contemporary art are her main interests.

Jaspinder has decided to pursue IDS to advance her knowledge in the field of design through the study of advanced design principles, concepts and interdisciplinary design practices that gives ability to face the challenges with more tactical approach.

---

## **SAYA KIM**

*Bachelor of Art (Hons) Major in Philosophy, Minor in  
Political Science, Queen's University  
Certificate of Business, Queen's University Smith School  
of Business  
Art and Design Foundations Program, George Brown  
College*

Artistically driven and critically engaged with the world, Saya would like to pursue truths, actualize ideas, and design solutions. She has obtained her B.A. Honours at Queen's University as a Philosophy major and a Political Science minor, along with a Certificate in Business from Smith School of Business in 2017. Upon moving to live and work in South Korea as a teacher for two years, Saya returned to Toronto in 2019 for Art and Design Foundations at George Brown College. Now, amidst all that is 2020, she is looking forward to growing as a designer through the Interdisciplinary Design Strategy Program.

---

### **CHRISTEL PANG**

*Honours Bachelor of Science, double major in Animal physiology and Cell and Systems Biology  
Art and Design Foundations Program, George Brown College*

Christel is a biologist with a passion for art and design. She enjoys researching and deciphering the theories of science while being inspired by the creative designs and fine artworks of the past.

During her studies at the University of Toronto, she worked as an after-school program instructor for children of graduate students ages 5-12. She was responsible for designing and executing programs ranging from STEM, fine arts, music, and dance. This experience challenged her creativity and promoted her recognition of diverse perspectives. She wishes to continue positively influencing youth and advocate learning through creative means.

In the IDS program, Christel would like to explore strategic thinking while exchanging skillsets with the interdisciplinary students and faculty members. She wishes to contribute to the betterment of current healthcare services through innovative, effectual, and ethical designs.

---

### **MARYAM RAZAVI**

*M.F.A. in Industrial Design, University of Tehran  
B.F.A. in Industrial Design  
DBA (Doctorate of business administration), University of Tehran*

Maryam Razavi is a Persian freelance Designer with more than 10 years of experience working with different companies. Maryam studied Industrial Design with a remarkable interest in fashion. She was recently working as a textile design manager. In this role, she was responsible for coaching other employees to use new ideas and software. Maryam is a strong team player and uses her positive attitude and tireless energy to encourage others to work hard and succeed. Maryam is inspired daily by communicating with other people and her friends. In her free time, Maryam likes to do yoga and meditation and loves to travel.

---

### **KIM PAULO TOLEDO**

*Bachelors of Science in Information Technology, St. Paul University Iloilo  
Art and Design Foundations Program, George Brown College*

Kim Paulo Toledo is a Graphic Designer, originally from the Philippines and currently living in Toronto, Canada. He defines himself as self-motivated, adaptable, confident, well organized and a down to earth person. He enjoys collecting action figures and art toys, watching good movies and attending concerts and photography. Playing video games or doing anything music related. Designing is Kim's true passion. It is the one thing that can give him a real sense of satisfaction. For Kim, being a designer is a job that dreams are made of fun, flexible and positively overflowing with creativity.

# Virtual Studio Rules

## **EXPECTATIONS FROM STUDENT**

Students agree to:

- Attend all sessions and complete all assigned work.
- Be accountable.
- Be professional.
- Remain online and active during class times and working sessions including virtual studio hours.
- Respect the value commitments of the program: Respect, innovation, openness, compassion, diversity, curiosity, collaboration, honesty, diligence, fairness, integrity, and creativity.
- Maintain confidentiality of work as required.
- Be cooperative and adaptive: Respect the diversity of the group and show interest in the views and perspectives of the team.
- Be honest, open and respectful in communication: Assist to define, clarify and focus discussions by listening, documenting and synthesizing ideas in collaboration with the team.
- Trust the process: Understand that creation involves a patient search and that anything is possible. Be prepared to work diligently and participate actively.
- Be able to lead and to follow in executing projects.
- Receive and implement feedback and critiques from faculty, mentors, advisors and peers.
- Celebrate successes and persist through challenges.
- Share knowledge and learning and learn from others.
- Use constructive criticism and propose alternative solutions for consideration.
- Be cooperative and adaptive: Respect and show interest in the views and perspectives of other team members and be willing to adapt for the good of the team.
- Inspire your peers: Bring energy and enthusiasm to the studio to enliven the group, encourage participation and progress.

- Take risks: Be willing to take risks and push the boundaries of design.
- Process checking: Don't be afraid to question the group on process issues such as agenda, time frames, discussion topics, and decision methods to help the improve their ideas.

## **RECOMMENDED LIST OF POLICIES TO REVIEW:**

- Academic Appeals Policy
- Accessible Learning Policy
- Curriculum Policy
- Disability Policy
- Educational Complaint Resolution
- Human Rights Discrimination and Harassment Policy
- Intellectual Property Policy
- International Travel Policy for Students
- Office of the Registrar Policies
- Privacy Policy
- Research Policies
- Sexual Assault and Sexual Violence Policy and Protocol
- Smoke Free Policy
- Student Acceptable Use (of Technology) Policy
- Student Code of Conduct and Discipline Policy
- Student Email Policy

For a complete list of college policies go to:  
**[www.georgebrown.ca/policies/](http://www.georgebrown.ca/policies/)**

# **Physical**

## **Studio Rules**

In order to make the studio an inclusive, positive and safe space for everyone, we have established a few simple rules and policies. Note that these are contingent on access to campus being reinstated. If you have any questions, please speak to the Academic Coordinator.

### **IWB STUDIO**

The IWB student desks and tables are designed for the exclusive use of IWB, and work in progress may be left on display. Desks should be kept in a neat and professional manner at all times. Please respect the space and equipment of your neighbours. Please be sure to clean up all spaces after they have been used.

The IWB classroom can be used as a temporary workroom, but students will be required to remove their work and return the room to normal when the classroom is booked by another party.

### **SECURITY**

- Students are responsible for the safety of their own possessions. George Brown College is not responsible for lost, damaged or stolen possessions.
- Students will receive security cards that allow them access to the main studio area during the studio hours. The studio should remain locked at all times.
- Students should report strangers or suspicious activity immediately to studio staff or building security.
- The last person to depart the studio in the evening should ensure that all doors are closed and locked.
- Guests are permitted during studio hours as long as they are accompanied by an IWB student.

### **KITCHEN**

Room 309 has a kitchenette for student use.

### **EQUIPMENT AND SUPPLIES**

Access to the IWB server and printer, borrowing equipment and all requests for supplies should be coordinated with the Program Coordinator.

---

# PART 4

---

# Curriculum Overview

# Curriculum

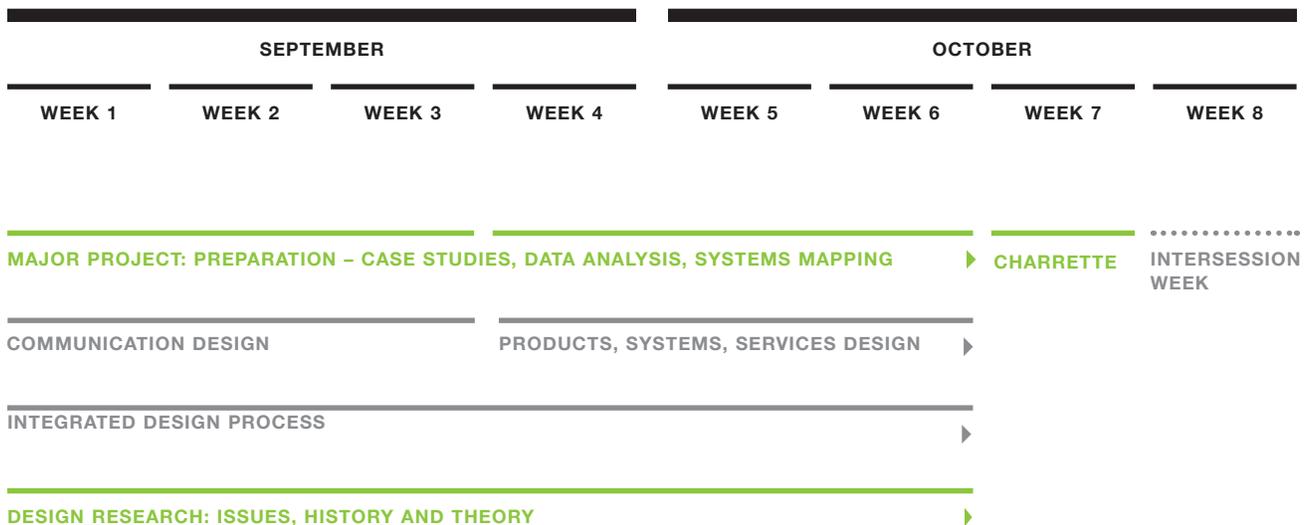
## Structure:

### Fall Semester

The IWB fall semester is comprised of three courses that run the duration of the semester—Major Project: Preparation, Design Research: Theory and Methods and Integrated Design Process.

Major Project: Preparation focuses on the research theme of the current year and acts as the thread that connects all IDS courses—guiding the students through a unique research and design process. IDP and Design Research complement Major Project, introducing students to relevant design research methods, practices, and approaches that reinforce learning outcomes. Together these three courses provide a basis for researching, framing and solving problems and communicating design outcomes.

In addition to these core courses, academic modules expose students to contemporary design disciplines and practices—Communication Design, Product, Service and Systems Design and Environment Design. Each of these modules present local challenges that contextualize the research theme and enable students to practice the theories, tools, methods and approaches learned during the semester. At the end of the semester all research and design outcomes will be presented in a research dossier and presentation.



**IMPORTANT DATES: SEMESTER 1**

**Fall Charrette**

- Oct. 19, 2020 - Charrette launch
- Oct. 23, 2020 - Final charrette presentations

**Academic Modules**

Final Deliverables and Presentations

- Sept. 28, 2020 - Communication Design
- Nov. 20, 2020 - Product, Service, Systems Design
- Dec. 11, 2020 - Environment Design

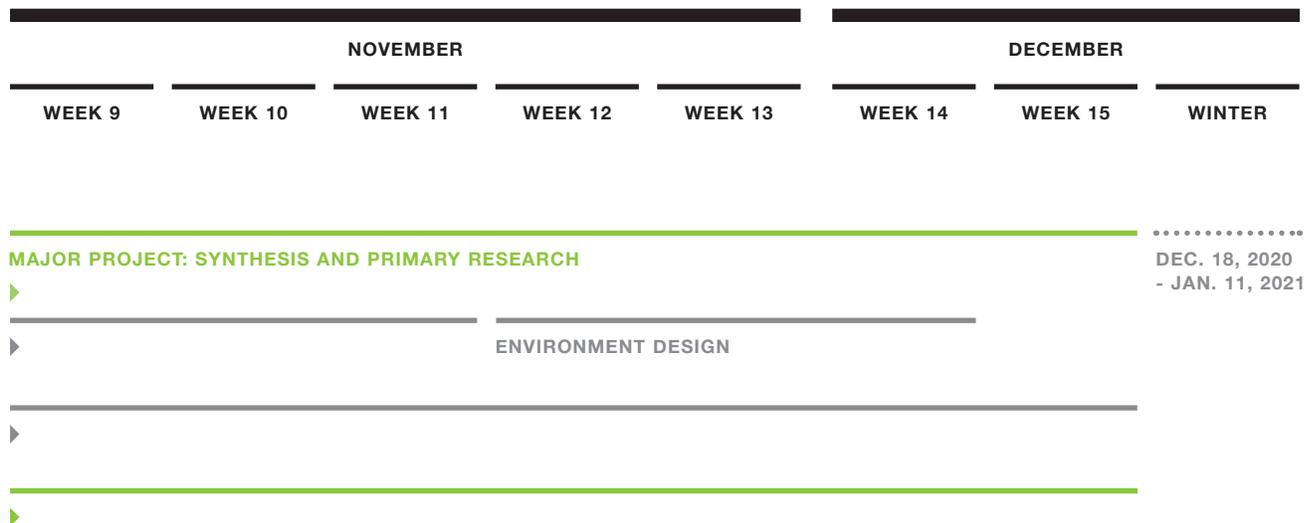
**Major Project Preparation**

Final Deliverables and Presentations

- Dec.18, 2020 - Research report presentation and publication

*Please Note: This schedule is subject to change to adapt to curriculum requirements.*

*Students are responsible to check the important dates for their program through the Google Calendar and respective course outlines. For the most current list of important dates and essential college information please visit: [www.georgebrown.ca/registernow](http://www.georgebrown.ca/registernow)*



# Course

## Descriptions:

### Fall Semester

---

#### **IDS BOOTCAMP**

*August 24 – September 4, 2020*

The Bootcamp introduces students to lwB, expectations, values, philosophies and approaches. Students will take part in exercises to get to know each other and become better familiarized with the research theme of the year. During this week, students will be introduced to the tools and resources available at the lwB, School of Design, George Brown College and will also get familiarized digital software and design principles. They will receive lectures from faculty to understand how they can approach researching, reframing and designing to help older adults Live and Age in Place.

---

#### **DESN 4003 DESIGN PROJECT: COMMUNICATION DESIGN**

*September 10 – 28, 2020*

*Instructors: Lauren Wickware*

##### Course Description:

This course introduces concepts in communication through the development of a lexicon in order to explore and question how language and image centred around a theme are represented.

---

## **DESN 4010 MAJOR PROJECT: PREPARATION**

*September 7 – December 18, 2020*

*Instructors: Matt Hexemer, John Jung*

*Graeme Kondruss, Nazanin Homayounfar*

### Course Description

This course prepares and offers the student all the necessary skills to tackle Major Project challenges as defined by the Institute without Boundaries. Students will engage in a set of sequential projects that will start with an in-depth analysis of the challenge using IwB design tools and methods. Throughout this course, students will learn and apply methods such as: format categorization, mapping, timelining, modelling, temporal framework positioning, comparative analysis, and whole systems thinking. Students will document, visualize and synthesize all research and design outcomes from this course into a final report, research dossier and exhibition.

Students will meet regularly with faculty, learn design evaluation skills, engage in peer to peer critiques and develop presentation techniques. It is expected that by the end of the fall semester, the students will be able to clearly define and communicate an understanding of the subject area, and develop a design strategy that articulates a clear design direction heading into semester 2. Design outcomes from this course will be used to inform Major Project Development and Major Project Communication courses.

---

## **DESN 4008 INTEGRATED DESIGN PROCESS I**

*September 9 – December 9, 2020*

*Instructor: Monica Contreras*

### Course Description

Integrated Design Process 1 provides students with foundational and practical skills, including the current and contextual industry knowledge required to successfully complete the Major project deliverables.

The course follows “authentic learning principles” – by applying current multidisciplinary professional practice to solve wicked problems. Each class is structured for participation in a fast-paced design team studio-style by engaging in a lecture, then following a short assignment to develop immediate individual and group skills.

The lectures are thematically organized to introduce students to different aspects of the design process, from an integrated design perspective, using triple-bottom line sustainable practices and design evaluation techniques applying human-centred principles. The short assignments support the practice of IwB tools and techniques for brainstorming, auditing, conceptualization, visualization and achieving synthesis of design concepts.

Overall themes have been coordinated to reflect the progressive complexities of the Major Project course, from research methodologies, appropriate theoretical discourses, agile concept development, experience design, and evaluations of design explorations.

Students will have an opportunity to practice skills in design thinking and leadership skills, team dynamics and discourse, agile design executions and evaluation methodologies of environmental, social and economic returns, financial analysis and project management processes from a designer’s perspective.

---

## **DESN 4007 DESIGN RESEARCH: THEORY AND METHODS**

*September 8 – December 8, 2020*  
*Instructor: Devika Narayani Prakash*

### Course Description

This course aims to increase awareness and critical discourse among students about contemporary design issues and theories by using design research to question the context within which designers situate their work. To encourage interdisciplinary thinking, students from a variety of backgrounds will present their personal design journey, and how they can relate it to IwB philosophies and the Major Project. Students will participate in discussions and conduct research related to their personal interests within topics from the Major Project. Students will develop analytical skills to critically examine primary sources in varying media, and will employ research, writing and presentation skills. This course is coordinated with the Major Project to support the theoretical framework and writing for the year's central themes.

---

## **DESN 4012 PRODUCT, SYSTEMS AND SERVICE DESIGN**

*September 28 – November 20, 2020*  
*Instructors:*

*The Moment – Simon Mhanna and Heather Daam-Rossi*  
*Fjord – Robert Giusti*

### Course Description

This course will provide an introductory understanding of Products, Systems and Service (PSS) Design and the disciplines and techniques that influence the product development cycle. Students will research and develop a tangible PSS solutions concept suitable for the goals of the Major Project. The course will include in-class lectures, discussions, and learning exercises around design research, concept creation, design development, and design presentations. Technical skills such as sketching, mind-mapping, model-making, material selection, manufacturing processes, and design presentation techniques will be introduced and practiced as the students develop their projects. A final presentation to faculty and guest professionals will provide students with a formal critique of their concepts. Additionally, students will gain skills using tools such as user scenarios, personas, journey maps to get an introductory understanding of systems and service design and the disciplines and techniques that influence their design development cycle.

---

**DESN 4009 CHARRETTE I**

*October 15 – 19, 2020*

*Instructor: Nazanin Homayounfar*

**Course Description**

Students explore design issues and develop solutions in a team environment through the design charrette process—an intensive, collaborative process that brings together students from different disciplines to interact with design professionals and citizen stakeholders to develop innovative solutions for complex issues. Over a few short days of brainstorming, discussion and expert consultation, teams create a broad range of ideas around the central theme, and eventually focus on elaborating a single concept. Students take part in the design and planning of the charrette process, and act as team facilitators during it, collaboratively generating, refining and presenting ideas.

The work completed during the charrette will be key to the students understanding of the larger research questions undertaken in the Major Project.

---

**DESN 4005 DESIGN PROJECT: ENVIRONMENT**

*November 23 – December 11, 2020*

*Instructors: SSA Studio – Susan Spiegel  
Huge Inc. Victor Bogatch*

**Course Description**

The Environment Module is an intense 3-week module intended to explore and apply design and urban theory, historical precedents, techniques, methodologies, sustainability principles, materiality, scale and relationships in order to develop strategic design solutions that explore key topics within the context of the Major Project. Students will work in teams to apply their research from Major Project Preparation (DESN 4010) to develop design interventions. The project outcome will include a series of built-form solutions encompassing new designed experiences that integrate branding and communications, product, systems and services solutions developed in previous courses.

---

**DESN 4026 WORK PREPARATION**

*September 28, 2020 - May 28, 2021*

**Course Description**

As part of the Interdisciplinary Design Strategy post-graduate program, students will participate in a series of workshops that demonstrates the practices, behaviours and atmosphere of working professional design studio. This will support the transition from student to working professional and expose students to potential job opportunities/pathways beyond the IwB.

# Weekly Schedule: Fall Semester

## OPEN DIGITAL STUDIO HOURS

Weekdays: 9:00 AM to 6:00 PM (EST)

Holidays: closed

*Note: There may be slight changes to this schedule throughout the year to ensure courses are not affected by holidays or to adapt to course requirements.*

*All classes will be held according to Eastern Central Timezone in Toronto. If you have any conflicts, please speak to your Academic Coordinator.*

WEEKLY SCHEDULE: WEEK 1-3				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
10:00-1:00 COMMUNICATION MODULE	10:00-1:30 DESIGN RESEARCH	10:00-2:00 INTEGRATED DESIGN PROCESS	10:00-1:00 COMMUNICATION MODULE	10:00-12:00 MAJOR PROJECT PREPARATION
LECTURES / WORKSHOPS / STUDIO	1:30-4:30 MAJOR PROJECT PREPARATION	LECTURES / WORKSHOPS / STUDIO	LECTURES / WORKSHOPS / STUDIO	LECTURES / WORKSHOPS / STUDIO

WEEKLY SCHEDULE: WEEK 4-15

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
<p>.....</p> <p>LECTURES / WORKSHOPS / STUDIO</p>	<p>10:00-1:30</p> <p>DESIGN RESEARCH</p>	<p>10:00-2:00</p> <p>INTEGRATED DESIGN PROCESS</p>	<p>.....</p> <p>LECTURES / WORKSHOPS / STUDIO</p>	<p>10:00-12:00</p> <p>MAJOR PROJECT PREPARATION</p>
<p>5:00-7:00</p> <p>PSS / ENVIRONMENT MODULE</p>	<p>1:30-4:30</p> <p>MAJOR PROJECT PREPARATION</p>	<p>5:00-7:00</p> <p>PSS / ENVIRONMENT MODULE</p>		<p>5:00-8:00</p> <p>PSS / ENVIRONMENT MODULE</p>

# Course

## Descriptions:

### Winter

### Semester

---

#### **DESN 4021 MAJOR PROJECT DEVELOPMENT**

*January 11– May 28, 2021*

*Instructors: Matt Hexemer, John Jung  
Graeme Kondruss, Nazanin Homayounfar*

##### Course Description

A continuation of DESN 4010 Major Project Preparation, students work to answer their research hypotheses and further develop the design solutions envisioned from the first semester. Based on their research and analysis completed in the first semester, students will work as a team to develop and execute a series of projects that address the needs and challenges of the client. These projects will combine environmental, product, communication, systems and services design outcomes. The students will continue to be in constant communication with project partners and stakeholders for feedback and clarifications as their projects progress. Furthermore they will produce reports, schematic designs, system visualizations, budgets and implementation plans using a holistic, interdisciplinary and systems based approach. The final outcomes of the Major Project will be presented in a completed atlas publication.

---

#### **DESN 4022 MAJOR PROJECT COMMUNICATIONS**

*January 11 – May 28, 2021*

*Instructors: Lauren Wickware and Kristina Ljubanovic*

##### Course Description

Students will collaborate to package and market their work from the DESN 4021 Major Project Development for public dissemination and distribution. Formats may include exhibitions, publications, web sites and/or conferences, as well as their final atlas publication. Under the direction of faculty, students will be responsible for compiling, editing, designing and producing materials that are appropriate for target audiences outside of the educational setting and in accordance with the needs of the project partners. In this way, the original research, tools and design work accomplished by the students are disseminated broadly. The course asks students to find innovative, effective and efficient strategies for dissemination and marketing.

---

**DESN 4024 CHARRETTE II**

*January 11 – February 19, 2021*  
*Instructor: Nazanin Homayounfar*

**Course Description**

Students explore design issues and develop solutions in a team environment through the design charrette process—an intensive, collaborative process that brings together students from different disciplines and design professionals to develop innovative solutions for complex issues. Over a few short days of brainstorming, discussion and expert consultation, teams create a broad range of ideas around the central theme, and eventually focus on a single concept which they believe best addresses client needs. DESN 4024 Charrette II requires students to show the experience they gained in planning and executing DESN 4009 Design Charrette I. Students take on the development of the design brief and the design and planning role prior to the charrette, and act as team facilitators for the charrette leading teams to collaboratively generate, refine and present their ideas.

---

**DESN 4025 INTEGRATED DESIGN PROCESS II**

*January 13 - April 25, 2021*  
*Instructor: Monica Contreras*

**Course Description**

Integrated Design Practice II continues the curriculum objectives of DESN 4008 Integrated Design Practice I by working to perfect applicable skills in order to learn how to implement strategic design solutions developed throughout the first semester. Lectures/Workshops and the Course Workbook will complement the tasks required for the Major Project. IDP2 will provide tangible hands-on strategies and support the skill-building necessary to take on the major project design propositions from schematic design, through to design development.

In particular, the workshops will focus in design project management implementation techniques, including development of value propositions, financial strategies, new business models, design management and all encompassing project management science skills.

# Curriculum

## Structure:

### Winter

### Semester

The lwB winter semester builds upon the research and preliminary design outcomes produced in the fall, pushing concepts through schematic and design development, prototyping and design delivery. Major Project: Development and Communication again act as anchors for the research theme, providing a structure that ensures final design outcomes and deliverables align with and offer solutions to major global challenges posed by lwB and project partners. These core courses are complemented by a series of charrettes that foster collaboration with students and design professionals from around the world and within GBC to design, develop, prototype and manifest ideas physically and digitally.

Integrated Design Process will complement these courses and provide students with sound project management, financial planning and project implementation skills that encourage feasible design outcomes.

Due to the fluid and flexible nature of this program, the specific structure and project focus of the Spring will be finalized during the fall semester. Below is the typical weekly schedule for the fall semester. Please note that this will change in alignment with the demands of the international and Dean's charrettes, and to accommodate the final production of year-end outcomes.

JANUARY				FEBRUARY				MARCH			
WEEK 1 11-15	WEEK 2 18-22	WEEK 3 25-29	WEEK 4 1-5	WEEK 5 8-12	WEEK 6 16-19	WEEK 7 22-26	WEEK 8 1-5	WEEK 9 8-12	WEEK 10 15-19	WEEK 11 22-26	
MAJOR PROJECT: DEVELOPMENT				Project Definition and Refinement				INT'L CHARRETTE		Schematic Design	
				MAJOR PROJECT: COMMUNICATION DESIGN				INTERSESSION WEEK			
INTEGRATED DESIGN PROCESS II											
CHARRETTE II										WORK PLACEMENT	

**IMPORTANT DATES: SEMESTER 2**

**International Charrette**

- Feb. 10, 2021 – Charrette Brief Due
- Feb. 22, 2021 – Charrette Launch
- Feb. 26, 2021 – Charrette Presentations
- Mar. 13, 2021 – Charrette Report Due

**Production Charrette**

Production and evaluation

- May 4, 2021 – Mid-Charrette Presentations
- May 14, 2021 – Final Prototype Presentations

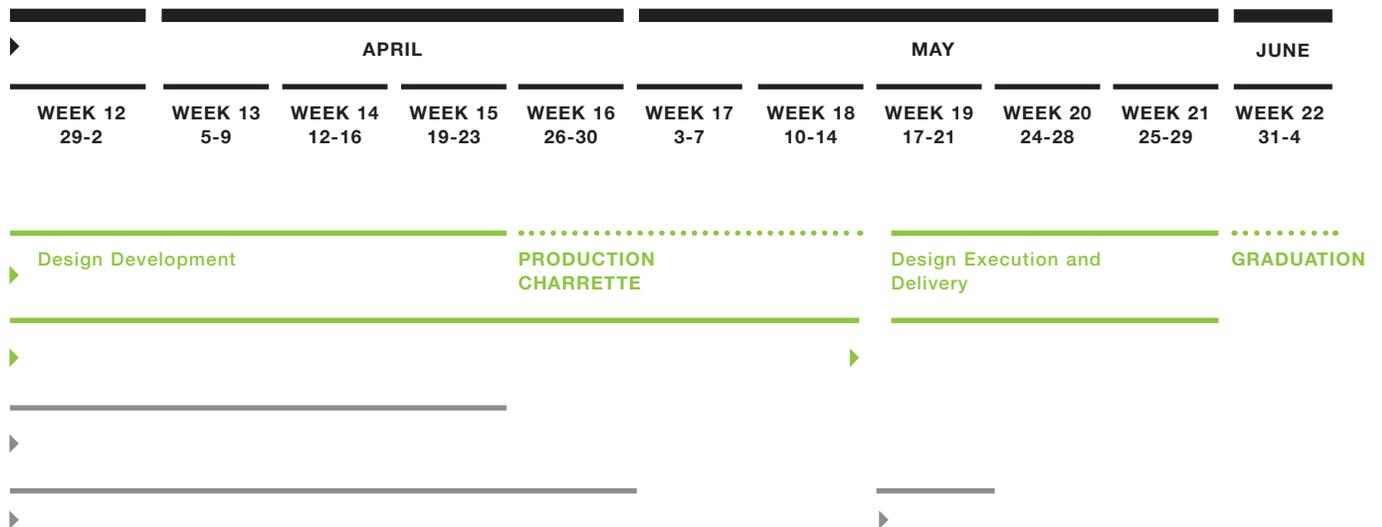
**IwB End of Year Show**

May 28, 2021

**Graduation**

May 28, 2021

*Note: the International Charrette will take place from February 22-28th. Attendance is mandatory on all days including Saturday, February 27 and Sunday, February 28.*



# Weekly Schedule: Winter Semester

## OPEN STUDIO HOURS

Weekdays: 7:30 AM–12:00 AM

Weekends: 7:30 AM–12:00 AM

Holidays: closed

*Note: this schedule is subject to change pending COVID-19 restrictions and its impact on the structure of program delivery in winter 2021.*

WEEKLY SCHEDULE: WEEK 3-15				
MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	..... LECTURES / WORKSHOPS / STUDIO		..... LECTURES / WORKSHOPS / STUDIO	
10:00-12:00 MAJOR PROJECT PREPARATION		10:00-2:00 INTEGRATED DESIGN PROCESS II		10:00-12:00 MAJOR PROJECT PREPARATION
		1:00-3:00 MAJOR PROJECT PREPARATION		1:00-3:00 CHARRETTE / WORK PLACEMENT
..... LECTURES / WORKSHOPS / STUDIO		4:00-7:00 MAJOR PROJECT COMMUNICATION		..... LECTURES / WORKSHOPS / STUDIO

WEEKLY SCHEDULE: WEEK 16-21

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
	..... LECTURES / WORKSHOPS / STUDIO		..... LECTURES / WORKSHOPS / STUDIO	
10:00-12:00 MAJOR PROJECT PREPARATION		10:00-2:00 INTEGRATED DESIGN PROCESS II		9:00-12:00 MAJOR PROJECT PREPARATION
..... LECTURES / WORKSHOPS / STUDIO		1:00-3:00 MAJOR PROJECT PREPARATION		..... LECTURES / WORKSHOPS / STUDIO
		4:00-7:00 MAJOR PROJECT COMMUNICATION		

# Grading and Evaluation

The IwB challenges students through a variety of projects, readings and participatory exercises. Along with these requirements there are major deliverables for each course that will be evaluated by faculty. These comprehensive projects require diligence, creativity, innovation and resourcefulness to complete. Students are expected to deliver these projects in alignment to professional standards and will be graded both individually and as teams in their execution.

Should the student fail to meet the academic benchmark in terms of quality of thought, design and presentation, a process of academic advisement will be initiated to see if the situation can be remedied. Students can expect to have at least one personal advisement meeting per semester to review grades, skills development, team contribution and overall performance.

Legitimate illness should be covered by a medical note and will be handled on a case-by-case basis with the Program Coordinator.



## **PROGRAM GRADING PROCESS**

Faculty will review students' accomplishments weekly and keep track of individual, team and group progress. In the Fall and Winter, performance reviews will be conducted with students to identify areas of success, areas needing improvement and strategies to enhance skills. Student feedback regarding program and faculty will occur during the same periods.

All assignments are assessed using a rubric. Rubrics will help evaluate the progress in three core areas of focus; Think (research), Make (concept and design development) and Presentation (communication). A final grade will be provided to students at year end.

The following standard grade measures reflects George Brown College's grading policy. The passing grade for IwB courses is B-.

### **Grading System**

A+/A	86-100	A-	80-85
B+	77-79	B	73-76
B-	70-72	C+	67-69
C	63-66	C-	60-62
D+	57-59	D	50-56
F	Below 50		

# Important GBC Dates

## **IMPORTANT DATES:**

### **September 21, 2020**

Last day to withdraw from an entire program with a partial refund. You may withdraw from your program on-line via STU-VIEW.

### **October 8, 2020**

Last day to opt in or out from the Student Health Insurance Plan for the fall 2017 term.

### **October 12, 2020**

Thanksgiving (College Closed)

### **October 26 - October 30, 2020**

Intercession Week

### **November 4, 2020**

Fees deposit is due for the winter term – January 2019.

### **November 13, 2020**

Last day to withdraw from a course or program without academic penalty.

### **December 11, 2020**

Balance of fees (Winter term 2018) are due for students who are not receiving OSAP funds or second career funding.

### **December 24, 2020 - January 3, 2021**

College closed for holiday break

### **January 11, 2021**

Winter semester starts

### **May 28, 2020**

Last Day of Winter Semester

*Please note: For a comprehensive list of important dates, please refer to the School of Design Student Handbook on Microsoft Teams.*

# Reading

## List and IwB

### Resource Guide

#### AGING IN PLACE READINGS

- Ciric, Stevan and Michael Eliadis, Constructing An Institute for Living and Aging at Home. 2020. PDF.
- Coletta, Amanda, Canada's Nursing Home Crisis: 81 Percent of Coronavirus Deaths are in Long-term Care Facilities. The Washington Post, 2020.
- Craig, Keltie and Francis Heng, Hey Neighbour Final Report. City of Vancouver, Plan, BC Housing, Vancouver Foundation, SFU and Vancouver Coastal Health, 2017. PDF.
- Dutton, Amy, Designing A Home To Age In Place, With Grace. Huffpost, 2016. [https://www.huffpost.com/entry/designing-a-home-to-age-in-place-with-grace\\_b\\_5791390ce4b0a86259d1029e](https://www.huffpost.com/entry/designing-a-home-to-age-in-place-with-grace_b_5791390ce4b0a86259d1029e)
- Engineer, Altaf, Esther M. Sternberg and Bijan Najafi, Designing Interiors to Mitigate Physical and Cognitive Deficits Related to Aging and to Promote Longevity in Older Adults: A Review. Gerontology, 2018.
- Faloon, Kelly L., Living in Place vs. Aging in Place: What's the Difference? Living In Place Designs, 2019. <https://liveinplacedesigns.com/aging-in-place-lifestyle/living-in-place-home-modifications/>
- James, Robert and Joel Lexchin, After COVID-19's tragic toll, Canada must improve quality of life in long-term care homes. Journal Pioneer, 2020. <https://www.journalpioneer.com/opinion/national-perspectives/after-covid-19s-tragic-toll-canada-must-improve-quality-of-life-in-long-term-care-homes-459457/>
- Kalita, Alexandra, Everything You Should Know About Designing a Home for Aging in Place. Architectural Digest, 2017. <https://www.architecturaldigest.com/story/aging-in-place-guide>
- Laher, Nazeefah, Diversity, Aging, and Intersectionality in Ontario Home Care: Why we need an intersectional approach to respond to home care needs. Wellesley Institute, 2017. PDF.
- Mancini, Melissa and Katie Pedersen, 'Spreads like wildfire': More than half of COVID-19 deaths in Canada have been seniors' home residents. CBC News, 2020. <https://www.cbc.ca/news/health/covid-19-nursing-home-elderly-1.5509915>
- Mathieson, Michael, Aging with a Disability. Access Independent Living Services, 2014. PDF. <https://cilt.ca/wp-content/uploads/2016/12/Aging-with-a-Disability-Focus-Group-Report.pdf>
- Nagel, Ray, Adults with disabilities are aging in place with community support. Press Herald, Updated 2019. <https://www.pressherald.com/2018/07/16/adults-with-disabilities-are-aging-in-place-with-community-support/>
- Pericu, Silvia, Designing For An Ageing Society: Products and Services. The Design Journal, 2017. <https://www.tandfonline.com/doi/pdf/10.1080/14606925.2017.1352734>
- Recknagel, Jen and Tai Huynh, Shoshana Hahn-Goldberg, Melissa Few, Craig Madho. Vertical Aging: Experience Lab. Open Lab. <http://uhnopenlab.ca/project/vertical-aging/>
- Richard, Joanne, Seniors still hardest hit by COVID-19 pandemic. Toronto Sun, 2020. <https://torontosun.com/life/relationships/0503-lifenational>
- Saloustros, Rebecca, Age-friendly Cities and Aging In Place. Rick Hansen Foundation, 2018. <https://www.rickhansen.com/news-stories/blog/age-friendly-cities-and-aging-place>
- Steinman, Michael A., Laura Perry and Carla M. Perissinotto, Meeting the Care Needs of Older Adults Isolated at Home During the COVID-19 Pandemic. American Medical Association, 2020. PDF.
- White, Linda. Aging In Place Reno's Consider Future Needs. Sun Homes and Decor. 2019. [https://www.acm-designs.com/wp-content/uploads/2019/02/ACM-Designs\\_PR-Toronto-Sun.pdf](https://www.acm-designs.com/wp-content/uploads/2019/02/ACM-Designs_PR-Toronto-Sun.pdf)
- Woodcock, Andree and Louise Moody, Deana McDonagh, Ajita Jain and Lakhmi C. Jain., Design of Assistive Technology for Ageing Populations. Springer, 2020. PDF.
- 2017 World Population Ageing (Highlights). United Nations. 2017. PDF. <https://www.un.org/en/development/desa/population/publications/pdf/>

ageing/WPA2017\_Highlights.pdf

- Age and Intersectionality. Ontario Human Rights Commission. <http://www.ohrc.on.ca/en/book/export/html/2890>
- Aging At Home: Aging In Place Successfully. The Comfort Life. Updated 2020. <https://www.comfortlife.ca/retirement-communities/aging-at-home>
- Aging in Place Design Checklist: How to Design Safe and Accessible Homes. 2020Spaces. <https://www.2020spaces.com/blog-aging-in-place-design-checklist/>
- Aging in Place Tech, Aging and Health Technology Watch. <https://www.ageinplacetech.com/>
- Aging with a Disability: Flipping the Script of the Healthy Aging Paradigm. Demand A Plan, 2018. <https://www.demandaplan.ca/post/aging-with-a-disability-flipping-the-script-of-the-healthy-aging-paradigm>
- Benefits of Aging at Home, Bayshore Healthcare. Updated 2020. <https://www.bayshore.ca/2017/02/17/benefits-of-aging-at-home/>
- Design For Aging In Place: Toolkit. PDF. <https://www.clark.wa.gov/sites/default/files/dept/files/community-planning/aging/Aging-In-Place-Toolkit.pdf>
- A Healthy City For All: Healthy City Strategy: Four-Year Plan Phase 2. City of Vancouver, 2015. PDF.
- Hey Neighbour: A Property Manager's Toolkit for Building Connections Between Residents. City of Vancouver, 2018. PDF.
- Hey Neighbour: A Resident Animator's Guide: Recipes For Building Connections Between Neighbours. City of Vancouver. PDF.
- Housing For Older Canadians: The Definitive Guide to the Over-55 Market: Understanding the Market, Government of Canada and Canada Mortgage and Housing Corporation, 2020. Volume 1. PDF.
- Housing For Older Canadians: The Definitive Guide to the Over-55 Market: Designing The Project. Government of Canada and Canada Mortgage and Housing Corporation, 2020. PDF.
- Institute of Aging. Government of Canada, Updated 2020. <https://cihr-irsc.gc.ca/e/8671.html>
- Ken Soble Tower Transformation, SABMagazine. 2020. <http://towerrenewal.com/ken-soble-tower-transformation-in-sab-magazine/>
- Maintaining Seniors' Independence Through Home Adaptations: A Self-Assessment Guide. Government of Canada and Canadian Mortgage and Housing Corporation. Revised 2016, PDF.
- Making Aging Better: A Look at How Service Design Can Innovate Senior Care. Project DAA, Design led Innovations for Active Ageing. PDF. [https://idz.de/dokumente/DAA\\_FINAL\\_BOOK.pdf](https://idz.de/dokumente/DAA_FINAL_BOOK.pdf)
- The Passive House Issue. SAB Magazine, 2019. PDF.
- Prosperity For All Through A Healthy Communities Approach: National Poverty Reduction Strategy 2017. City of Vancouver, 2017. PDF.
- Re-Shaping the Housing Market for Aging In Place and Home Modifications. Home Modification Canada, 2017. PDF. [https://caregiveromnimedia.com/wp-content/uploads/2017/11/re-shaping\\_housing\\_market\\_aging\\_in\\_place\\_home\\_modifications.pdf](https://caregiveromnimedia.com/wp-content/uploads/2017/11/re-shaping_housing_market_aging_in_place_home_modifications.pdf)
- Senior Poverty and Inequity: The Toronto Experience. Well Living House and Social Planning Toronto, 2020. PDF.
- Shaping Ageing Cities: 10 European Case Studies. ARUP, Intel and Systematica. 2015. [https://ifa.ngo/wp-content/uploads/2015/09/Shaping-Ageing-Cities\\_A4\\_web-1.pdf](https://ifa.ngo/wp-content/uploads/2015/09/Shaping-Ageing-Cities_A4_web-1.pdf)
- The 100-Year Life Project. Lab 4 Living. <https://lab4living.org.uk/projects/the-100-year-life-project/>
- The Challenge: The 100- Year Life: Living and Working In An Age of Longevity. <http://www.100yearlife.com/the-challenge/>

## CORE READINGS

- Alexander, Christopher. *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press, 1977. Print.
- Gido, Jack, and James P. Clements. *Successful Project Management*. 6 edition. Stamford, CT, USA: South-Western College Pub, 2014. Print.
- Koskinen, Ilpo et al. *Design Research Through Practice: From the Lab, Field, and Showroom by Ilpo Koskinen (29-Sep-2011) Paperback*. Morgan Kaufmann, 2011. Print.
- Lynch, Kevin. *The Image of the City*. MIT Press, 1960.
- Spiekermann, Erik, and E. M. Ginger. *Stop Stealing Sheep and Find Out How Type Works*. 2 edition. Berkeley, Calif: Adobe Press, 2002. Print.
- Tassi, Roberta. "Service Design Tools | Communication Methods Supporting Design Processes." Thesis research. N.p., n.d. Web. 1 Sept. 2015.
- Thackara, John. *In the Bubble: Designing in a Complex World*. 1 edition. The MIT Press, 2006. Print.
- White, Alex W. *The Elements of Graphic Design*. Second Edition. New York, NY: Allworth Press, 2011. Print.

## SUGGESTED READINGS

- Barnwell, Maurice. *Design, Creativity and Culture: An Orientation to Design*. 1 edition. London, UK: Black Dog Publishing Limited London, 2011. Print.
- Caplan, Ralph. *By Design 2nd Edition: Why There Are No Locks on the Bathroom Doors in the Hotel Louis XIV and Other Object Lessons*. 2 edition. New York: Fairchild Books, 2004. Print.
- Duarte, Nancy. *Resonate: Present Visual Stories That Transform Audiences*. Hoboken, N.J: Wiley, 2010. Print.
- Holston, David. *The Strategic Designer: Tools and Techniques for Managing the Design Process*. Cincinnati, Ohio: HOW Books, 2011. Print.

- Kelley, Tom. *The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm*. Crown Publishing Group, 2007. Print.
- Millman, Debbie, and Rob Walker. *Brand Thinking and Other Noble Pursuits*. Allworth Press, 2013. Print.
- Shaughnessy, Adrian, and Tony Brook. *Studio Culture: The Secret Life of a Graphic Design Studio*. London: Laurence King Publishing, 2009. Print.
- Sinek, Simon. "Start With Why." *Start with Why*. N.p., n.d. Web. 1 Sept. 2015.

## SUGGESTED RESOURCES

- Angotti, Tom. *The New Century of the Metropolis: Urban Enclaves and Orientalism*. New York: Routledge, 2012. Print.
- Bachelard, Gaston. *The Poetics of Space*. Revised edition. Boston: Beacon Press, 1994. Print.
- Benyus, Janine M. *Biomimicry: Innovation Inspired by Nature*. Harper Perennial, 2002. Print.
- Bornstein, David. *How to Change the World: Social Entrepreneurs and the Power of New Ideas*, Updated Edition. 2 edition. Oxford ; New York: Oxford University Press, 2007. Print.
- Bourne, Larry S. et al., eds. *Canadian Urban Regions: Trajectories of Growth and Change*. 1 edition. Toronto: Oxford University Press, 2011. Print.
- Braungart, Michael, William McDonough, and Stephen Hoyer. *Cradle to Cradle: Remaking the Way We Make Things*. MP3 - Unabridged CD edition. S.l.: Tantor Audio, 2008. Print.
- Calthorpe, Peter, and William Fulton. *The Regional City*. 4th edition. Washington, DC: Island Press, 2001. Print.
- Calvino, Italo. *Invisible Cities*. New York: Harcourt Brace Jovanovich, 1978. Print.
- Carson, Rachel. *Silent Spring*. Houghton Mifflin Harcourt, 2002. Print.
- Chambers, Nicky, Craig Simmons, and Mathis Wackernagel. *Sharing Nature's Interest: Ecological*

- Footprints as an Indicator of Sustainability. London ; Sterling, VA: Routledge, 2000. Print.
- Conran, Terence. *The Essential House Book: Getting Back to Basics*. New York: Three Rivers Press, 1994. Print.
  - Csikszentmihalyi, Mihaly. *Creativity: Flow and the Psychology of Discovery and Invention*. 1 edition. Harper Perennial, 1997. Print.
  - *Flow: The Psychology of Optimal Experience*. 1st edition. Harper Perennial Modern Classics, 2008. Print.
  - Daly, Herman E., and Kenneth N. Townsend, eds. *Valuing the Earth: Economics, Ecology, Ethics*. second edition. Massachusetts: MIT Press, 1992. Print.
  - Davis, Mike. *Planet of Slums*. Reprint edition. London ; New York: Verso, 2007. Print.
  - Doczi, Gyorgy. *The Power of Limits: Proportional Harmonies in Nature, Art, and Architecture*. New edition. Boston: Shambhala, 2005. Print.
  - ERA Architects, and University of Toronto. *Mayor's Tower Renewal Opportunities Book*. Toronto: N.p., 2008. Web.
  - Friedman, Alice T. *Women and the Making of the Modern House*. 1 edition. New Haven, CT: Yale University Press, 2007. Print.
  - Fuad-Luke, Alastair. *ecoDesign: The Sourcebook*. 2nd edition. San Francisco: Chronicle Books, 2006. Print.
  - Galloway, Alexander R., and Eugene Thacker. *The Exploit: A Theory of Networks*. Minnesota: University of Minnesota Press, 2007. Web.
  - Gertsakis, John et al. *Design + Environment: A Global Guide to Designing Greener Goods*. Greenleaf, 2001. Print.
  - Giedion, Sigfried. *Mechanization Takes Command: A contribution to anonymous history*. Minneapolis: University of Minnesota Press, 2014. Print.
  - Grun, Bernard, and Eva Simpson. *The Timetables of History: A Horizontal Linkage of People and Events*. 1 edition. New York: Touchstone, 2005. Print.
  - Hall, Peter. *Cities of Tomorrow: An Intellectual History of Urban Planning and Design in the Twentieth Century*. 3 edition. Oxford, UK ; Malden, MA: Wiley-Blackwell, 2002. Print.
  - Hamdi, Nabeel. *Small Change: About the Art of Practice and the Limits of Planning in Cities*. London ; Sterling, Va: Routledge, 2004. Print.
  - Hawken, Paul. *The Ecology of Commerce Revised Edition: A Declaration of Sustainability*. Revised edition. New York: HarperBusiness, 2010. Print.
  - Hawken, Paul, Amory Lovins, and Hunter Lovins. *Natural Capitalism: Creating the Next Industrial Revolution*. 1st edition. US Green Building Council, 2000. Print.
  - Hull, R. Bruce. *Infinite Nature*. 1 edition. Chicago: University Of Chicago Press, 2006. Print.
  - Jacobs, Jane. *Cities and the Wealth of Nations*. 1st Vintage Books edition. New York: Vintage, 1985. Print.
  - *The Death and Life of Great American Cities*. Reissue edition. New York: Modern Library, 1993. Print.
  - Kahn, Lloyd, and Bob Easton, eds. *Shelter*. 2nd Revised edition. Bolinas, Calif. : Berkeley, CA: Shelter Publications, 2000. Print.
  - Keil, Roger, and Neil Brenner. *The Global Cities Reader*. 1 edition. London ; New York: Routledge, 2006. Print.
  - Kelley, Tom. *The Art of Innovation: Lessons in Creativity from IDEO, America's Leading Design Firm*. Crown Publishing Group, 2007. Print.
  - Knowles, Ralph. *Ritual House: Drawing on Nature's Rhythms for Architecture and Urban Design*. 1 edition. Washington, DC: Island Press, 2006. Print.
  - Kostof, Spiro. *The City Shaped: Urban Patterns and Meanings Through History*. Reprint edition. Boston: Bulfinch, 1993. Print.
  - Low, Nicholas et al. *The Green City: Sustainable Homes, Sustainable Suburbs*. 1 edition. Sydney ; Abingdon, Oxfordshire ; New York: Routledge, 2005. Print.

- Maeda, John. *The Laws of Simplicity*. First Thus edition. Cambridge, Mass: The MIT Press, 2006. Print.
- Maeda, John, and Paola Antonelli. *Design by Numbers*. Reprint edition. The MIT Press, 2001. Print.
- Meadows, Donella H. et al. *The Limits to Growth: A Report for the Club of Rome's Project on the Predicament of Mankind*. New York: Dartmouth/ Universe Books, 1972. Web.
- Mumford, Lewis. *The City in History: Its Origins, Its Transformations, and Its Prospects*. Mariner Books, 1968. Print.
- *The Culture of Cities*. Harvest Books, 1970. Print.
- Norman, Donald A., and Peter Berkrot. *The Design of Everyday Things*. MP3 - Unabridged CD edition. Old Saybrook, Ct.: Tantor Audio, 2011. Print.
- Osterwalder, Alexander, and Yves Pigneur. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. 1 edition. Hoboken, NJ: Wiley, 2010. Amazon. Web.
- Papanek, Victor. *Design for the Real World: Human Ecology and Social Change*. 2 Revised edition. Chicago, Ill: Chicago Review Press, 2005. Print.
- *Green Imperative*. New York: Thames and Hudson, 1995. Print.
- Polaine, Andy, Lavrans Løvlie, and Ben Reason. *Service Design: From Insight to Implementation*. 1st edition. Brooklyn, NY: Rosenfeld Media, 2013. Print.
- Polèse, Mario. *The Wealth and Poverty of Regions: Why Cities Matter*. Chicago, Ill.; London: University Of Chicago Press, 2011. Print.
- Revetz, Joe. *City-Region 2020: Integrated Planning for a Sustainable Environment*. 1 edition. London: Routledge, 2000. Print.
- Rosenberg, Daniel, and Anthony Grafton. *Cartographies of Time: A History of the Timeline*. Princeton Architectural Press, 2012. Print.
- Ryn, Sim Van der, and Stuart Cowan. *Ecological Design*. Island Press, 1996. Print.
- Sassen, Saskia. *Cities in a World Economy*. Fourth Edition. Thousand Oaks, Calif: SAGE Publications, Inc, 2011. Print.
- *Global Networks, Linked Cities*. New York: Routledge, 2002. Print.
- Soderstrom, Mary. *The Walkable City: From Haussmann's Boulevards to Jane Jacobs' Streets and Beyond*. Montreal: Véhicule Press, 2009. Print.
- Steffen, Alex, Sagmeister Inc, and Al Gore. *Worldchanging: A User's Guide for the 21st Century*. New York: Harry N. Abrams, 2008. Print.
- Taylor, Peter J., and Ben Derudder. *World City Network: A Global Urban Analysis*. 1 edition. London ; New York: Routledge, 2003. Print.
- Thackara, John. *In the Bubble: Designing in a Complex World*. 1 edition. The MIT Press, 2006. Print.
- Tischner, Ursula, and Martin Charter. *Sustainable Solutions: Developing Products and Services for the Future*. Sheffield, U.K: Greenleaf Pubns, 2001. Print.
- Vicente, Kim. *The Human Factor: Revolutionizing the Way People Live with Technology*. New York: Routledge, 2004. Print.

#### **BOOKS AVAILABLE IN THE IWB LIBRARY**

- Alexander, Christopher. *A Pattern Language: Towns, Buildings, Construction*. New York: Oxford University Press, 1977. Print.
- Anthony, Kathryn H. *Design Juries on Trial*. 20th Anniversary Edition: *The Renaissance of the Design Studio*. Kathryn H. Anthony, 2012. Print.
- Bachelard, Gaston. *The Poetics of Space*. Revised edition. Boston: Beacon Press, 1994. Print.
- Brown, Tim. *Change By Design: How Design Thinking Transforms Organizations and Inspires Innovation*. 1st Edition. New York: Harper Business, 2009. Print.
- Hanington, Bruce, and Bella Martin. *Universal Methods of Design: 100 Ways to Research Complex Problems, Develop Innovative Ideas, and Design Effective Solutions*. unknown edition. Beverly, MA:

- Rockport Publishers, 2012. Print.
- Heskett, John. *Design: A Very Short Introduction*. Oxford: Oxford University Press, 2005. Print.
  - Holston, David. *The Strategic Designer: Tools and Techniques for Managing the Design Process*. Cincinnati, Ohio: HOW Books, 2011. Print.
  - IDEO. *IDEO Method Cards: 51 Ways to Inspire Design*. William Stout, 2003. Print.
  - Jones, John Chris. *Design Methods*. 2 edition. Wiley, 1992. Print.
  - Kolko, Jon. *Wicked Problems: Problems Worth Solving: A Handbook and A Call to Action*. AC4D, 2012. Print.
  - Koolhaas, Rem, and Bruce Mau. S, M, L, XL. Monacelli Press, 1997. [www.monacellipress.com](http://www.monacellipress.com). Web. 1 Sept. 2015.
  - Koskinen, Ilpo et al. *Design Research Through Practice: From the Lab, Field, and Showroom by Ilpo Koskinen (29-Sep-2011) Paperback*. Morgan Kaufmann, 2011. Print.
  - Laurel, Brenda, ed. *Design Research: Methods and Perspectives*. Cambridge, Mass: The MIT Press, 2003. Print.
  - Lennertz, Bill, and Aarin Lutzenhiser. *The Charrette Handbook: The Essential Guide to Design-Based Public Involvement*. 2nd Edition. Chicago, Illinois ; Washington, D.C: APA Planners Press, 2014. Print.
  - Lynch, Kevin. *Managing the Sense of a Region*. Cambridge: MIT Press, 1976. Print.
  - Martin, Roger, and Karen Christensen, eds. *Rotman on Design: The Best on Design Thinking from Rotman Magazine*. Toronto: University of Toronto Press, Scholarly Publishing Division, 2013. Print.
  - Neuhart, John, and Marilyn Neuhart. *Eames Design*. New York: Abrams, 1989. Print.
  - Nussbaum, Bruce. *Creative Intelligence: Harnessing the Power to Create, Connect, and Inspire*. New York, NY: HarperBusiness, 2013. Print.
  - Sanders, Elizabeth B. N., and Pieter Jan Stappers. *Convivial Toolbox: Generative Research for the Front End of Design*. BIS Publishers, 2012. Print.
  - van Boeijen, Annemiek, Jaap Daalhuizen, and Roos van der Schoor. *Delft Design Guide: Design Strategies and Methods*. BIS Publishers, 2014. Print.
  - Venturi, Robert, Denise Scott Brown, and Teven Izenour. *Learning from Las Vegas: The Forgotten Symbolism of Architectural Form*. Revised edition. MIT Press, 1977. Print.

### DIGITAL RESOURCES

- Chase-Dunn, Christopher, and Andrew Jorgenson. *Settlement Systems: Past and Present*. California: Institute for Research on World-Systems, University of California, Riverside, 2002. Web. Globalization and World Cities Study Group and Network.
- Davis, Juliet et al. *Researching the Spatial and Social Life of the City*. United Kingdom: London School of Economics, LSE Cities Programme/ citiesLAB, 2009. Web.
- Osterwalder, Alexander, and Yves Pigneur. *Business Model Generation: A Handbook for Visionaries, Game Changers, and Challengers*. 1 edition. Hoboken, NJ: Wiley, 2010. Amazon. Web.

### GENERAL DIGITAL RESOURCES

- Globalization and World Cities Research Network: [www.lboro.ac.uk/gawc/index.html](http://www.lboro.ac.uk/gawc/index.html)
- The Brookings Institution Global Cities Initiative: [www.brookings.edu/about/projects/global-citiesmapsontheweb.tumblr.com/](http://www.brookings.edu/about/projects/global-citiesmapsontheweb.tumblr.com/)
- [www.wired.com/wiredscience/maplab/](http://www.wired.com/wiredscience/maplab/)

