Quality

in Canada's Built Environment:

Roadmaps to Equity, Social Value and Sustainablity

Booklet of the 2022-2023 annual reports from the 14 research sites associated with the Quality Research Partnership

Annual Reports From the 14 Research Sites

2022-2023

Edited by Jean-Pierre Chupin, PhD
Scientific Director of the SSHRC Partnership on Quality

Canada Research Chair in
Architecture, Competitions and Mediations of Excellence

Conseil de recherches en sciences humaines du Canada   Social Sciences and Humanities Research Council of Canada

Canada

ANNUAL REPORTS
FROM THE 14 RESEARCH SITES

2022-2023

SSRHC Research Partnership
(#895-2022-1003)

Edited by Jean-Pierre Chupin, PhD, CRC-ACME, Université de Montréal

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RESEARCH SITE: University of British Columbia
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 25

Names of partners:
    ***Researchers*:**
    - Byrne, Fionn
    - Jacobs, Sara
    - Lokman, Kees

    Citizen Groups:
    - CRAB Park volunteer network (Michelle Gagnon-Creeley)

    City and Public Order:
    - Vancouver Park Board (Doug Shearer, Acting Manager of Planning, Policy & Environment)
    - Vancouver Park Board (Jordan Lypkie, Planner II, Planning, Policy & Environment)-CityStudio (Emily Gorham)

    Professional organizations:
    - Canadian Society of Landscape Architects, Reconciliation Advisory Committee (Grant Fahlgren)

1- Title of the situated project:

Right to Land

2- Summary of the problem and research questions:

As a first step in a larger exploration of quality in urban parks, especially as it relates to spatial justice for marginalized communities, we will investigate the processes by which public parks are planned, developed and maintained in Vancouver.

To do so, we will conduct a focused study of the planning and development of two prominent Vancouver landscapes, John Hendry Park and New Brighton Park. We will begin with open-ended research into archived Vancouver Parks Board (VPB) and City of Vancouver (COV) reports, presentations, and meeting minutes, as well as other publicly accessible materials, such as local news articles and webpages. Unclear or missing details – how, why, and when decisions are made, and by whom – will be newly revealed, made explicit, and understood through semi-structured interviews with VPB and COV staff, as well as design managers at design offices and other stakeholders. Information gathered will be arrayed on a graphic timeline, through which relationships between decisions, decision-makers, social, cultural, environmental and other factors can be drawn. From here, other graphic and/or written materials will be produced both as investigative models and communication tools.

Through this process, we intend to better understand if and how questions of equity, inclusion, and quality are addressed in current planning, design, development and maintenance processes that produce urban parks, and by extension, the social, cultural, and ecological conditions they create.

Following the detailed studies on John Hendry Park and New Brighton Park, we will be doing a broad-based study on park pre-planning, design and decision-making processes within Vancouver.

3- Ethical approval

- Approval Period:
- Approving Agency Number:

We have begun putting together an ethics application to do semi-structured interviews with staff from the City of Vancouver, Parks and Recreation Board, and design firms in order to learn more about how questions of quality, equity and inclusion are addressed throughout park pre-planning, design and decision-making processes. We plan to submit this application in the summer of 2023 in order to begin interviews in September 2023.

4- Summary of research activities involving local partners:

- We have been hosting regular team meetings with the academic supervisors and research assistants on a bi-monthly basis. Every 6-8 weeks, we invite representatives from City of Vancouver Parks and the CSLA to these meetings to receive feedback, suggestions and input on research directions. Most recently, Michelle Gagnon-Creeley, who is part of the CRAB Park volunteer network, also joined the group.

- On November 23, 2022, we organized a roundtable entitled "What is a Park?" The roundtable brought together a group of over 30 people, including Participants from the City of Vancouver Parks and Recreation Board, representation from both Parks planners and community outreach, leadership from local landscape architecture firms, CityStudio, and the CSLA. During the 2-hour, online event, participants broke out in small groups to discuss questions such as: What is a park? When does land become a park? What does it look like, and what is its meaning? What grows, and who lives in a park? Who is it for, and who gets to decide? What other questions should we ask, and how do we determine if a park is successful?   The event helped our team deepen inquiries concerning the concept of a park, both historically and in contemporary terms, and to explore possibilities for redefining, reframing, and redesigning.

5- Summary of student engagement and names of students by study cycle:

Graduate Research Assistants:
- Robert Iain Ferguson, Dual Degree Candidate (Master of Architecture and Landscape Architecture)
- Brontë Mutukistna, Master of Landscape Architecture Candidate

Robert and Brontë's engagement has been key in developing the detailed studies of John Hendry Park and New Brighton Park, conducting historical research, creating visual materials, and preparing materials for team meetings. We engaged undergraduate students and graduate

students as part of the "What is a Park" Roundtable. Students were asked to write down their description of what a park is in 250 words or less. This description could be empirical or aspirational.

6- List of dissemination products related or connected to the partnership project:

At this early stage in the process, we have yet to produce any outward facing documents that report on and/or communicate the process, findings, and activities related to our project. We do have a Miro Board, which documents the research and process we have undertaken thus far: https://miro.com/app/board/uXjVPNMrXt4=/

RESEARCH SITE: Dalhousie University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 07

Names of partners:
Researchers:
- Fitzgerald, Susan (susan.fitzgerald@dal.ca)
- Lilley, Brian (brian.lilley@dal.ca)
- Putman, Michael (michael.putman@dal.ca)
- Radice, Martha (martha.radice@dal.ca)
- Reilly, Derek (reilly@cs.dal.ca)

Citizen Groups:
- Maclean, Alex (alex@zuppatheatre.com)

City and Public Order:
- Perrin, Leah (perrinl@halifax.ca)
- MacDonald, Darrell (Darrell.MacDonald@novascotia.ca)

1- Title of the situated project:

Defining Quality Through Experiences of Space and Belonging

2- Summary of the problem and research questions:

Built environments have the profound capacity to contribute to the social value and sustainability of communities. Many years after engaging with architecture the effects—both positive and negative—are felt. Our team will investigate a series of built case studies across Nova Scotia and ask how they foster quality and belonging. To do this we will study a building type that is vital to a sense of inclusion within the community—the school.

While awards for quality in architecture and other design disciplines have proliferated in the last 20 years, little is known about how design quality correlates with end user experience of quality. Architects and designers increasingly consult prospective users during the design process but are seldom able to return to their design projects, once they are built, for more than a short post-occupancy evaluation. Our interdisciplinary project explores what quality of design means in practice and in use, and how the concept of quality can be understood and developed to enhance equity, sustainability, and social value and inclusion.

The Halifax team is exploring quality in schools that have received design awards ('awarded schools'). Schools are crucial institutions in a society with near-universal public education, and rightly attract a great deal of scholarship on curriculum and pedagogy, but little research has investigated the spatial dimensions of learning environments (Walden 2015). Drawing on anthropological and sociological theories of the social production of space (Lefebvre 1991),

social construction and embodied experience of space (Low 2016), multilocality/multivocality (Rodman 1992) and place attachment (Altman & Low 1992, Lewicka 2011), we want to explore the relationship between 'quality' in design and 'quality' of use-value and experience. Have design intentions in awarded schools been fulfilled or subverted in practice? Does high quality of design result in high quality of experience?

3- Ethical approval

- REB #: 2022-6198
- Effective Date: September 22, 2022
- Expiry Date: September 22, 2023

New ethics approval submitted by Dr. Martha Radice for "The School Building Report Card: Exploring Quality in the Built Environment of Community Learning Spaces" on April 3, 2023

4- Summary of research activities involving local partners:

We have undertaken the study of a series of case studies of awarded school projects in Nova Scotia. Along with our partners we have developed what and how to study. Using Henri Lefebvre's tripartite reading of space, we have identified that each case study requires understanding the perceived, conceived, and lived conditions of these projects at the territorial, community, and site scale. The perceived and conceived are in progress and are necessary for all the other studies. We are now embarking on multiple ways to understand lived space. We see these as iterative studies.

Ethnographic Study

The school population consists of staff, students, and community users in three Halifax region public schools: Marine Drive Academy ('MDA', pre-primary to grade 12, building opened 2020 in Sheet Harbour), Charles P Allen High School ('CPA', building opened 2013 in Bedford), and Citadel High School ('CIT', building opened 2007 in Halifax). Our qualitative methods, inspired by 'pop-up ethnography' (Radice 2022), consist of direct observation, short individual or small-group 'pop-up' interviews (all users), longer interviews (staff only), and school report cards (written/drawn input primarily from students and community users but potentially from staff also) conducted over two days in each school. We will conduct qualitative analysis of the resulting rich data to look for patterns in how people use the built environment, practically, and what place it has in their feelings about school life. This will help generate new knowledge not only about these specific schools but also about the broader evolution of built environments as they are used and about the relationship between design quality and use value.

Storytelling Freelab

The Digital Storytelling workshop will follow on from the ethnographic research. The workshop will begin with a seminar to consider the findings so far and discuss possible translations into an augmented reality setting. Our partner, Zuppa Theatre, will be directly involved in plotting out the digital storytelling engagement. Derek Reilly and the Gem group will work on initial data sets and coding for the augmented, digital reality construction, while Brian Lilley will work with Architectural students to provide physical anchors / furniture prototypes and projections.

Initial research work done in Story CreatAR that tests spatial analysis techniques to help non-technical authors construct and deploy immersive AR narratives underlies the research moving forward. Avatar development may not only help define a multi-layered understanding of lived experience but begin to suggest alternatives moving forward. The development of mapping activities will provide a layered meta-perspective or map that can be explored in situ using immersive AR.

5- Summary of student engagement and names of students by study cycle:

Undergraduate**:**
Alex Kotzeff – Computer Science
Lizzie Krnjevic – Architecture
Bridgette Norwood – Social Anthropology

Graduate**:**
Stavros Kondeas - Architecture
Rin Milos - Architecture
Brendan Roworth - Architecture
Rita Wang - Architecture

Postgraduate**:**
Claiton M. Correa – Computer Science
Mo Zanjanian – possible PhD student

Students have been actively involved in the in-person and online conventions, and the local round table discussions. The current architecture students take part in the online Common Integrative Seminars. Students have been involved in all the research to date looking at case studies and developing content for the local round tables to help shape the discussions.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Video Presentation for online conference December 2, 2022:
McLean, Alex:
- McLean, Alex, " Title of the article, " *Name of the Journal*, (City: Edition, year), pages.

6-B- Publications connected to the partnership project:

CIS Seminar VI:
Fitzgerald, Susan:
- Fitzgerald, Susan, "Mapping as a Research Method" March 17, 2023

6-C- Upcoming or planned publications:

Susan Fitzgerald and Martha Radice are jointly authoring a paper on the lived experiences of school buildings.

RESEARCH SITE: McGill University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 19

Names of partners:
> **Researchers:**
> - Benedicto, Bobby
> - Kramer, Anna
> - Straw, Will
> - Thain, Alanna
> - Tureli, Ipek
>
> **Citizen Groups:**
> - MTL 24/24 (Mathieu Grondin)
> - Architecture Sans Frontières Québec (Sonia Blank)

1- Title of the situated project:

Night-time Design for/with Marginalized Communities

2- Summary of the problem and research questions:

Night studies is an emerging field of interdisciplinary study. Night can be conceived as not only a time, but also a space that has its own set of residents, visitors, and workers. Traditionally, the night was a space of police, surveillance, and exclusion. It has also been a space of refuge, especially for marginalized communities who find safety in being less visible. For people who are unhoused, the night poses questions of sleep equity. For the LGBTQ2+ community, night clubs and bars are vital spaces for community-building and social sustainability. As political protests and cultural activities expand into the night, it has offered a festive and creative space to build solidarity and demonstrate the social value of protest assemblies.

Montreal has long been recognized as a nightlife capital and the city's investments in the "spectacular" remaking of the night are internationally known. Awards for architectural excellence in night-time design are often awarded to projects that target international tourists and promote the global marketing of the city rather than meeting the needs of marginalized groups. This research interrogates spaces celebrated for exemplary night-time design and questions whether they meet the needs and desires of people who inhabit the night. Through the interrelated themes of "Public Sleep" (sleep equity), "The Animated Night" (LGBTQ+ nightlife and club culture), and "Night Movements" (nocturnal activism and protest) this research explores who has the right to the urban night?

3- Ethical approval

- Approval Period: March 31, 2023 – March 30, 2024

- Approving Agency Number: 23-01-092

4- Summary of research activities involving local partners:

Since the Montreal Convention, the McGill Research Site established partnerships with citizens groups MTL 24/24 and Architecture Sans Frontières Québec (ASFQ). MTL 24/24 is a non-profit organization that works to destigmatize nightlife activities, support the local scene, enable a dialogue between the community, public and political authorities, and to enhance local economic life. Architecture Sans Frontières Québec (ASFQ) is an organization that works with communities to build their capacities through the involvement of different actors in the architectural field. Their current action research project *Architecture and Homelessness* examines architectural and urban planning strategies that facilitate social inclusion and exclusion for unhoused people.

Focusing on continuing to build partnership, the McGill Research Site connected with a few organizations the project team are interested in collaborating with, including Chez Doris and DAWN Canada. Chez Doris is a charitable organization that provides services and shelter for vulnerable and unhoused women and non-binary folk. DAWN (Disabled Women Network of Canada) is an organization that advocates for the rights women and girls with disabilities and Deaf women in Canada.

On November 22, 2022, the McGill Research Site organized a roundtable meeting with the representatives of the community groups, MTL 24/24, ASFQ and DAWN Canada. From this meeting, a number of possible avenues for collaboration were identified:

- MTL 24/24: the McGill team is interested in collaborating with MTL 24/24 on their work on night governance. What does 24-hour participation look like when some communities are marginalized in the 24-hour cycle? What does participation in a night town hall looks like? How to use underused spaces - such as public libraries unused spaces - to provide space and services of night care?

- ASFQ: our research team can collaborate with ASFQ on informing their projects around the unhoused population, through upcoming workshops on sleep equity, including the mapping workshop. In addition there is an opportunity to identify sites for a post-occupancy evaluation.

- DAWN: areas of collaboration with DAWN are equity in the 24-hour cycle and conversations around intersection of caregiving and disabled women - caregiving and care receiving. Who provides care? How are they included in the 24hr cycle?

Finally, local partners were invited to participate in a counter-mapping workshop organized by graduate students on March 20, 2023 (more about this below). Members of ASFQ were in attendance and the project team created connections with new potential partners such as Interlingue, a 24/7 crisis line that helps members of the LGBTQ2+ community.

5- Summary of student engagement and names of students by study cycle:

Undergraduate:

Graduate**:** Cara Chellew (PhD, School of Urban Planning) and Zineb Hameda Benchekroun (Masters, Architecture)

Postgraduate**:**

Graduate students Cara Chellew (PhD, School of Urban Planning) and Zineb Hameda Benchekroun (Masters, Architecture) organized a 90-minute Counter-Mapping Workshop at McGill University on March 20, 2023. Counter-mapping can be a powerful tool for promoting social and spatial justice. It can make visible what is often invisible and shed light on issues and stories that otherwise remain hidden. In addition to visualizing spatial data, counter-mapping can be used to record and archive community-based stories. The workshop invited the members of counter-mapping projects "Queering the Map" and the "Parc-Ex Anti-Eviction Mapping Project" to discuss the possibilities and limitations of their work. Members of the project team as well as partners from ASFQ attended and took part in discussion pertaining to methodological approaches.

Furthermore, the graduate students have been conducting research on international case studies on spaces of night-time care. What kind of care is needed during the night and for whom? For people who work shift work, more flexible arrangements of care are necessary for not only children but also for people who are elderly. Spaces of care are usually open during the day and revolve around daytime and business hours. Furthermore, how do we center notions of care and hospitality for people who are unhoused?

The inventory of case studies will feed into the themes for each of the project's years and will be compiled by the students on the research team. By analyzing these case studies, the project team seeks to answer some of the following questions:

- What kind of amenities, spaces are built/adapted for people's needs at night? Who funds them? Who can be mobilized to build these spaces?
- What are some of the established practices in Canada and abroad that pertain to spaces of night care?
- What are some of the types of innovative approaches that include different communities of different needs? Ex. Toronto crip rave, different sound systems for hard of hearing and deaf people, etc.

In addition to publishing the results of this research on a website, Zineb and Cara will present examples of night care at an upcoming one-day symposium organized by team member Will Straw on "Night-time Spatialities".

6- List of dissemination products related or connected to the partnership project:

Counter-Mapping Workshop, March 20, 2023 at McGill University featuring Lucas LaRochelle (Queering the Map), Yannick Baumann, and Nuzhat Niaz (Parc-Ex Anti-Eviction Mapping Project).

6-A- Publications directly related to the partnership project:

6-B- Publications connected to the partnership project:

6-C- Upcoming or planned publications:

RESEARCH SITE: Toronto Metropolitan University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 01

Names of partners:
    ***Researchers*:**
       - Biglieri, Samantha (Assistant Professor, School of Urban and Regional Planning)
       - Farah, Leila (Associate Professor, Department of Architectural Science)
       - Peters, Terri (Assistant Professor, Department of Architectural Science)
       - Polo, Marco L. (Professor, Department of Architectural Science)
       - Sekercioglu Fatih (Assistant Professor, School of Occupational and Public Health)

    Citizen Groups:
       - Open Architecture Collaborative Canada (Afsaneh Taffazzoli, Marveh Farhoodi , Christina Baldanza , Ruchi Agarwal)

    City and Public Order:
       - City of Toronto, Civic Design (Kristina Reinders, Program Manager)
       - Waterfront Toronto (Rei Tasaka, Design Project Manager, Planning and Design)

    Professional organizations:
       - Ontario Association of Architects (Susan Speigel, Past President)

1- Title of the situated project:

Re-evaluating Inclusivity and Well-Being on Toronto's Evolving Waterfront

2- Summary of the problem and research questions:

As the Lake Ontario shoreline has evolved from an industrial waterfront to a dynamic, vibrant mixed-use urban asset, it has been the subject of debate concerning the nature of future development, reflecting ongoing tensions between public space and private development, built form and open space, urbanization and restorative naturalization. An important debate is centered around the accessibility of the waterfront to all Torontonians, which relies on the creation of a robust system of public spaces, multi-modal mobility networks and other systems that can be disrupted by excessive privatization of the waterfront.

Accessibility is considered from a variety of perspectives; the elimination of physical barriers is key, but equally important are barriers based on social, economic and other non-physical forms of exclusion. The research examines how design excellence is understood in the context of

conceived- perceived-lived experience of architecture and public space (Lefebvre, 1974/1992). Our partner organizations bring to the project a broad perspective on design excellence in the built environment, addressing issues of environmental and social sustainability, equity, the social value of public space, and the role of design in relation to the physical, social and environmental health and well-being of the community.

- How do people with different mobility, sensory and cognitive abilities experience buildings and public spaces along the Toronto Waterfront?
- How successfully have award-winning projects on Toronto's waterfront addressed their stated intentions (conception-perception-lived experience analysis)?
- How can the definition of design excellence be expanded to further include issues of accessibility, equity, well-being and inclusion?

3- Ethical approval

- Approval Period: n/a
- Approving Agency Number: n/a

To date, discussions with the Research Ethics Board at Toronto Metropolitan University have resulted in the decision that research activities do not require REB approval. This was based on the submission of a detailed description of activities. Discussions with the REB are ongoing as the work progresses, and we are currently preparing additional submissions based on anticipated activities that we expect will require REB approval.

4- Summary of research activities involving local partners:

- Fall round table (online)
- Discussions with City of Toronto regarding participating as observers in upcoming Urban Design Awards process (May - September 2023)
- Training done by OACC (Ruchi Agrawal) on Participant Observation for 100 third-year undergraduate planning students in Samantha Biglieri's 'Planning Research Design' course. These students will be documenting the built form and public life of 18 sites along Toronto's waterfront as part of their classwork.

5- Summary of student engagement and names of students by study cycle:

The students named below joined the TMU team at various stages, and based on when they joined, attended some or all of the following Common Integrative Seminars:

2022-10-20: Can Awards of Excellence Define Quality?
2022-11-17: Qualitative + mobile research methods
2022-12-16: Community Engagement + Design of Built Environments
2023-01-17: Meaningful Accessibility in the Built Environment
2023-02-16: Equity and Resilience in Public Open Spaces
2023-03-17: Mapping as a Research Method

*Student Research Assistants***:**

Undergraduate**:**

Anosha Alam , Bachelor of Urban and Regional Planning candidate
- Find Development Applications for Award-Winning sites (using documentation already provided by Architecture RAs)
- Document the site's progression through the planning process (including the Design Review
  Panel if applicable and review by any bodies looking at accessibility)
- Summarize their planning rationale report (that got approved)
- Document the public's reaction to said developments (in process, currently)
- Document any discussions around accessibility and/or wellbeing
- Document if an accessibility consultant was used as part of the project

Jennifer Khuu, Bachelor of Urban and Regional Planning candidate
- Map planning and urban design policies for the entire waterfront (likely broken into a few sections: Humber Shores Park, Sunnyside, Ontario Place, Downtown, Portlands, Beaches,
  Scarborough, Scarborough Bluffs, Rouge River)
  - Official Plan (+any Secondary Plans)
  - Zoning By-law
  - Design Guidelines
  - Accessibility Policies
  - Areas identified in other strategic plans (e.g. Seniors Strategy, Parks Forestry and Recreation Master Plan)
- Create summaries of each policy (in addition to mapping) as they relate to the different site areas
- Document when accessibility and health/wellbeing is mentioned
- Began a literature review of critical access literature, and the interactions between policies and understandings of access.

Graduate**:**

Kristen D'Penna, Master of Architecture candidate
- Compiled a working list of awards competitions and the criteria used in those various awards competitions and other sources to find out how they frame health, wellbeing, equity and inclusion
- Determined potential case studies and gathered preliminary documents based on research questions
- Attended the full day of sessions on the 2022 Online Congress on December 2nd, 2022 and contributed to Round Table Summaries
- Contributed to inventory of projects on Toronto Waterfront

- Began researching case study methods

Jessica Gu, Master of Architecture candidate
- Attended inaugural conference in Montreal, August 2022; contributed to preparation of Round Table Summaries; served as TMU student representative on GSC
- Contributed to inventory of projects on the Toronto Waterfront
- Prepared maps/site plans of Toronto Waterfront, locating and categorizing projects
- Prepared timeline of Toronto Waterfront Development
- Compiled media documentation of Waterfront projects/issues
- Assisted with analysis of research to determine which projects will be pursued as case studies
- Will serve as liaison with City of Toronto in this year's Urban Design Awards

Alexis Lewis , Master of Science in Occupational and Public Health candidate
- Compiled news media about the waterfront, focusing on wellbeing, health and inclusion.
- Developed a preliminary protocol for this and engaged with a Librarian about their recommendations in terms of search terms.
    - i.   How are these topics framed in relation to the waterfront?
    - ii.   Use major dailies and alternative newspapers.
    - iii. Time Period: 1972-Present.

Nicole Li, Master of Architecture candidate
- Attended the full day of sessions on the 2022 Online Congress on December 1st, 2022.
- Compiled a working list of award winning projects based on the WaterfrontTO website, Toronto Urban Design Awards, the map of the Atlas of Research on Exemplarity in Architecture and the Built Environment (AREA-BE), the RAIC, OAA and Canadian Architect's websites. In addition, the website of design firms for projects that had received a number of awards was also examined and helped identify additional awards.
- Collected data on Sherbourne Common, has been representing it started an observational study on this case.

Rawan Nahle , Master of Science in Occupational and Public Health candidate
- Mapped out the Healthy Built Environment Policy Landscape in Ontario/Toronto (document how the different official departments, policies, legislation, regulations, standards, funding and committees (etc.) interact with one another when it comes to healthy built environments)
- Documented the legislation, regulations, guidelines and policies governing healthy built environments from the Provincial Level.
- Documented the departments/ bodies/ actors at the Provincial level in the healthy built environments space
- Documented the budget provided for the province for healthy built environments and how it is funded

Frani O'Toole , Master of Planning in Urban Development candidate

- Researching potential groups we might be able to work with for the summer months + their contact information (Eg. disability rights groups) and creating a database
- Document the legislation, regulations, guidelines and policies governing accessibility from the Provincial Level. (Think AODA, Built Environment Standard, requirements for municipalities to have Municipal Accessibility Advisory Committees, requirements for design documents, the Building Code, Ontario Human Rights Tribunal).
- Document the departments/ bodies/ actors at the Provincial level in the accessibility space
- Document the budget provided for the province for accessibility and how it is funded. (As well as if they offer funds to other groups)
- Document the legislation, regulations, guidelines and policies governing accessibility from the City of Toronto level.
- Document the departments/ bodies/ actors at the municipal level in the accessibility space.
- Document the budget provided for the municipality for accessibility and how it is funded.
- Began a literature review of critical access literature, and the interactions between policies and crip understandings of access.

Postgraduate**:** n/a

6- List of dissemination products related or connected to the partnership project:

- Video for APN conference, March 1-2, 2023
- Internal roundtable report, Fall 2022
- Inventory of Waterfront projects (internal use only to date)
- Mapping of Waterfront projects (internal use only to date)
- Timeline of Waterfront projects (internal use only to date)
- Catalogue of media documentation of Waterfront projects (internal use only to date)
- Inventory of international awards programs addressing themes related to the project (internal use only to date)
- Case studies of various projects (proposed and/or in progress)
- Case studies of various processes, eg. award programs, design guidelines etc. (proposed and/or in progress)
- Nicole Li and Leila Farah presented on Sherbourne Common in the Site Development and Planning class that L. Farah teaches at Toronto Metropolitan University (March 31st 2023).

6-A- Publications directly related to the partnership project:

Biglieri, Samantha:

- Developed and presented a Common Integrative Seminar on "Qualitative + mobile research methods to understand perceptions of quality + affective/embodied experiences" in November 17, 2022

Biglieri, Samantha and Marco Polo:

- Video presentation summarizing observational research work directed by Dr. Samantha Biglieri, TMU, prepared for the Accessibility Professional Network Conference, Vancouver, B.C, March 1, 2023.

Ruchi Agrawal (OACC):

- Live lecture on participant observation in public spaces to train undergraduate planning students.

6-B- Publications connected to the partnership project:

Polo, Marco:

- Book chapter, "Is There Still a Place for the Prix de Rome?". *The Rise of Awards in Architecture*. Jean-Pierre Chupin, Carmela Cucuzzella and Georges Adamczyk, eds. Vernon Press, 2022, pp. 31-50.

6-C- Upcoming or planned publications: N/A at this time.

RESEARCH SITE: University of Toronto
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / April / 07

Names of partners:
    ***Researchers*:**
    - Masoud, Fadi
    - Wright, Robert

    Citizen Groups:
    - Toronto Environmental Alliance (Emmay Mah, Sarah Buchanan, How-Sen Chong)

    City and Public Order:
    - City of Toronto, Parks, Forestry and Recreation (Liz Corson, Stephanie Gower, Jia Lu, Lucy Genua, Alex Sheinbaum)
    - Waterfront Toronto (Rei Taska, Yuxuan Lin, Cameron MacKay)

1- Title of the situated project:

Equitable Resilience in Toronto's Open Spaces

2- Summary of the problem and research questions:

From initial engagement with our industry partners, our team identified several procedural gaps in how local, small-scale, community / neighbourhood parks are designed and maintained, especially when compared to more competition-winning destination parks along the waterfront. This project responds to those gaps by focusing on equitable resilience in local neighbourhood parks specifically Black Creek, a historically under-served neighbourhood, in Toronto in order to:

- Redefine, with communities, good or bad quality of neighbourhood/local parks in Toronto
- Develop some form of measuring (e.g. scoring, ranking) quality that is easy, scalable, and can serve communities for advocacy and accountability, and industry partners for decision-making around funding, refurbishment, etc.
- Create a scalable methodology of engagement, testing, and iteration to develop metrics for 'good quality' neighbourhoods parks

For the parks along the waterfront, the team is interested in designing and deploying various communication and engagement tools that expand and enhance the legibility and value of public realm, park, and open spaces investments on the waterfront. Waterfront Toronto prides itself with promoting design excellence and leading with landscape as central pillars of its redevelopment.

3- Ethical approval

- Approval Period: No Ethics Approval required for year 2 based on the feedback from year 1. There has been no changes in methods or project description in year 2 from year 1. Year 3 we will have developed a program for community engagement so we will require it in year 3.
- Approving Agency Number: Research Ethics Manager, Social Sciences, Humanities & Education Research Oversight & Compliance Office (ROCO) (416) 978-5585

- dean.sharpe@utoronto.ca

4- Summary of research activities involving local partners:

For the Black Creek project, the research team has conducted a thorough literature review to identify how quality of parks is currently measured by different municipalities, non-profit groups, academic scholars, and other agencies involved in park design, and has curated a first draft of indicators of quality of local, small-scale, neighbourhood parks. Our team has worked closely with local industry partners to gather feedback on these indicators and ways in which the project can be made more useful for their day-to-day decision-making around park design and maintenance. The team working with Waterfront Toronto held bi-weekly meetings to discuss progress on the design, development, and deployment of an interactive visualization and illustration that showcases the breadth and impacts of park investments along the waterfront. The interactive illustration includes the ability of various uses to "filter" and explore the various programming, ecological, and social amenities these parks offer.

5- Summary of student engagement and names of students by study cycle:

Graduate students on the team have been working on conducting an extensive literature review and park inventorying task over the last few months categorizing and qualifying indicators of quality in neighbourhood parks in Black Creek, Toronto. This literature review included inventorying of indicators and measurements of quality mentioned in academic/scholarly, policy, and grey literature.

The students working on waterfront parks have bi-weekly meetings with Waterfront Toronto to discuss the development of an interactive visualization that includes users, stakeholders, and activity types. The students also worked on developing a porotype website with various interactive filters, icon-based wayfinding, and a space for feedback and comments.

Undergraduate: - **Ecem Sungur Quping Li**

Graduate: **Izzy Mink, Coco Wang, Negar Ferdosi, Ying Zheng, Yue Wang**

Postgraduate / PhD Candidate: **Sneha Mandhan**

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Masoud, Fadi "Equity and Resilience in Public Open Spaces, Integrative Seminars, February 16, 2023, Living Atlas of Quality in Architecture and the Built Environment. https://livingatlasofquality.ca/articles/25

6-B- Publications connected to the partnership project:

6-C- Upcoming or planned publications:

Masoud, Fadi, Senha Mandhan, Rob Wright, Alex Shienbaum, "Towers in the Park an Opportunity for Equitable Resilience" – Places Journal – Forthcoming

Masoud, Fadi, Perez-Amado Victor, "Equitable Resilience" at the Regent Park World Urban Pavilion Exhibition Space, (Toronto) Opening June – September 2023.

RESEARCH SITE: Carleton University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 07

Names of partners:

Researchers:
Students:
- Lengies, Melissa (Master of Architecture), 3rd year (Fall 2022 / Winter 2023)
- Mastrangelo, Dana (Master of Architecture), 2nd year (Fall 2022 / Winter 2023)
- Quibell, Taylor (Master of Applied Sciences: Building Engineering (Heritage Conservation), 2nd year (Fall 2022 / Winter 2023)
- Phillips, Hannah (Master of Applied Sciences: Building Engineering (Heritage Conservation), 1st year (Fall 2022)

Professors:
- Esponda, Mariana (chair of the research cluster)
- Goffi, Federica
- Santana, Mario

Citizen Groups:
- Heritage Ottawa (Carolyn Quinn)
- National Trust for Canada (Chris Wiebe)
- International Council of Monuments and Sites (ICOMOS) (Jean Laberge and Daniele Malomo)

City and Public Order:
- City of Ottawa - Heritage Planning Department (Lesley Collins)
- Public Services and Procurement Canada (PSPC) / Heritage Conservation Services (HCS) (Bianca Lagueux and Martin Contal)

Professional organizations:
- Canadian Association of Heritage Professionals (CAHP) (Christine Uchiyama, Jeanie Gartly and Andrew Waldron)
- ERA Architects (Michael McClelland),
- Association for Preservation Technology (APT) (Andrée-Ann Langevin, Gabriela Sanchez, and Lena Buchinger)
- Carleton Immersive Media Studio [CIMS Lab-Carleton] (Lara Chow and Laurie Smith)

1- Title of the situated project:

Adaptive Reuse for a Sustainable Future

2- Summary of the problem and research questions:

Carleton's research explores the definition, prevalence, and impacts of adaptive reuse as it pertains to quality in the built environment. The upsurge in vacant and underutilized buildings due to the decline of certain building typologies - such as offices, schools, sacred buildings, and industrial buildings - paired with a linear economy reinforces trends of demolition and new construction, resulting in significant environmental impacts alongside the loss of character and social cohesion of neighbourhoods. This research seeks to determine the potential benefits of building reuse and assesses how to achieve them through "quality" design. In other words, how can existing buildings be adapted to new typologies while sustaining socio-cultural and economic relevance and heritage values, and avoiding the waste of vast amounts of materials and embodied energy. Furthermore, given that the research focuses on specific building typologies, we also question how given typologies may have a better tendency for certain types of conversions, and what specifically facilitates those changes/interventions.

We plan to analyze each year selected adaptive reuse case studies through the lens of a different building typology. With a growing rate of office building vacancies only exacerbated by new work-fromhome trends over the COVID-19 pandemic, Year 1 (2022-23) focuses on the conversion of both historic and modern office buildings in Canada and abroad. Key questions involved in this research include, but are not limited to:

1. What is "quality" in adaptive reuse?
2. How are adaptive reuse projects awarded?
3. What are the barriers and drivers to reuse?
4. What policies and incentives directly or indirectly impact reuse projects?
5. What synergies does adaptive reuse provide to socially, culturally, economically, and environmentally sustainable practices?

3- Ethical approval

- Approval Period: N/A
- Approving Agency Number: N/A

4- Summary of research activities involving local partners:

On July 6, 2022, an informal meeting was held between research site leaders and some of the partners over Zoom to introduce the group and upcoming convention, to discuss pressing issues in adaptive reuse, and to discuss the prime building typology to focus on in the upcoming research. During this meeting, it was decided to change the focus from sacred buildings to office buildings for Year 1 based on the amount of vacant office buildings and the ongoing issue of social housing.

All of Carleton's partners later participated in both the in-person Convention at the University of Montreal between August 24-26, 2022, and the Online Convention over Zoom between December 12, 2022, where they attended the various partner presentations and roundtable discussions on barriers to quality in the built environment, challenges and lessons learned in architectural projects, potential case studies, and potential research outcomes. Partners were able to connect with those from other universities, identifying intersections across topics such as accessibility, social equity, and sustainability while integrating different approaches to the

assessment of quality. A few of our partners also prepared introductory statements on their expectations and views on quality leading up to the Montreal Convention. During the December Convention, one of our City Partners, Carolyn Quinn from Heritage Ottawa, prepared a presentation on heritage projects in Ottawa which prompt the question of quality, as well as their ongoing advocacy work.

On October 7, 2022, all our partners attended our first online roundtable organized by the Carleton research team where we discussed research goals, additional case studies and reports for assessing the benefits and barriers to adaptive reuse, as well as what quality means for adaptive reuse projects. On February 27, 2023, we held our second roundtable with partners partially online and in person. This consisted of a short research update by the students, followed by a lively Q & A session on the adaptive reuse of federal office buildings. During this discussion, partners were able to share their expertise on a variety of topics, including key leverage points for promoting the retention and reuse of existing buildings; policy from the perspectives of all levels of government; additional awards of interest; reflections on good and bad examples of adaptive reuse; and potential research outputs. Our partners also identified gaps in policy as well as what types of stakeholder expertise should be sought to gain a more well-informed view on assessing quality in the built environment.

Throughout the year, our research team has contacted various individuals within our partner organizations for more detailed discussions on specific areas of expertise, and to request for information or additional contacts pertaining to our research. Discussions have primarily been over Zoom calls or by email between student researchers and individual partners regarding topics such as federal office building reuse and disposal processes, office conversion criteria, policies at all levels of government, heritage designations, and future case studies. Some partners spent additional time outside of these discussions acquiring and assembling the requested information and making introductions to additional experts.

It is expected that most partners will be attending the in-person Calgary Convention at the University of Calgary from May 1-2, 2023 and will be preparing written excerpts on lived experiences of quality in advance of the event.

5-   Summary of student engagement and names of students by study cycle:

Undergraduate: N/A

Graduate: Melissa Lengies, Dana Mastrangelo, Taylor Quibell, Hannah Phillips

All students participated in biweekly meetings with site leaders alongside additional student team meetings to discuss research progress, overall direction, expectations, and deliverables. Each student completed general research on office conversions and barriers and benefits to adaptive reuse while additionally focusing on different subtopics, as described below. Students collaborated to produce presentations for the Online Convention in December, for Montreal and Calgary Conventions, and for both internal partner roundtables. Students were responsible for guiding the discussions of the internal roundtables. Students also reached out to various individuals from partner and non-partner organizations to discuss or request specific information relevant to their research, and to conduct site visits in Ottawa. Through their collective research, they have assembled a working database of office conversions across

Canada and in the US, in addition to information on specific case studies. All students attended the Online Convention and Common Integrative Seminars.

The Montreal Convention was attended by Melissa Lengies and Hannah Phillips, who both took notes and presented short reports on cluster roundtables. They both later completed roundtable summaries and revised transcripts for the roundtables. Taylor Quibell completed this same role at the Online Convention in December 2022. Melissa and Taylor will be attending the Calgary Convention in May 2023.

Melissa's research has focused on policy-based barriers and incentives which directly or indirectly impact the feasibility and quality of adaptive reuse in Ottawa, with successful examples of supportive policies in other jurisdictions. Melissa has also prepared blog posts for the Living Atlas website, and is the Carleton representative for the Graduate Student Committee, recently appointed Co-Chair. She attends monthly meetings for the GSC while coordinating information with her research team. Additionally, she is part of the organizing team for the Student Photo Competition. Her master thesis "Memory and Reveal, Empowering communities through new uses for adaptive reuse for existing buildings" seeks to determine whether adaptive reuse can support a more socially, culturally and environmentally sensitive approach to development within ethnic enclaves, exploring its potential role in the revival, evolution and safe keeping of Montreal's Chinatown as a modern community and as an important part of Chinese-Canadian history.

Dana Mastrangelo's research focus has been on national, provincial, and municipal awards in adaptive reuse; identifying which typologies are more awarded than others; and qualitative trends in awards criteria. She has developed definitions relating to the experiential qualities of adaptive reuse and has conducted research on heritage evaluation processes. She is also conceptualizing and developing graphics for a primer on adaptive reuse of vacant and underutilized federal buildings and federal policy shortcomings.

Taylor's research has focused on the environmental benefits of building conservation, material reuse, and adaptability, with additional research on how office conversions can aid in the climate and housing crises. She has completed an extensive literary review and assembled a database of resources on adaptive reuse. Taylor has been the primary liaison with our local partners at HCS (PSPC) and has interviewed additional experts on office-to-residential conversion evaluations and federal building disposal processes. Taylor is developing a widely applicable framework to calculate the embodied carbon of post war office buildings. She will apply this framework to a building at the Federal Study Centre in Ottawa, ON. Through her research she will explore the potentials of office buildings and the environmental benefits of building reuse which directly connects to the grant research. Taylor has submitted an article on Carleton University's research on adaptive reuse for the SSHRC Partnership Grant to be published in the Ontario Association of Heritage Professionals (OAHP) Newsletter (Spring 2023). She and Dana have also submitted an abstract for As Found, an international colloquium on adaptive reuse in Belgium (waiting for acceptance).

Postgraduate: N/A

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

- Mastrangelo, Dana and Taylor Quibell, "The Obstacles in Canadian Adaptive Reuse Practice (Abstract)," As Found - International Colloquium on Adaptive Reuse (2023). (awaiting confirmation of acceptance to present in September 2023)
- Lengies, Melissa, "Theme 2 - Integrated Resilience – Roundtable 1 Summary," Final Student Reports on Roundtables (2022), 7.
- Phillips, Hannah, "Theme 2 - Integrated Resilience – Roundtable 3 Summary," Final Student Reports on Roundtables (2022), 4.
- Quibell, Taylor, "Discussion on Content & Formats for Quality Roadmaps – Roundtable 5 Summary," Final Student Reports on Roundtables (2022), 4.
- Quibell, Taylor, "Adaptive Reuse for a Sustainable Future." OAHP (Ontario Association of Heritage Professionals) Newsletter (Spring 2023).
- Lengies, Melissa, "Carleton U Organises its Virtual Partner Roundtable," Living Atlas of Quality, (2023).
- Lengies, Melissa, Dana Mastrangelo and Taylor Quibell, "Meet the Carleton University Graduate Students!," Living Atlas of Quality (2023).

6-B- Publications connected to the partnership project:

- Quinn, Carolyn, "Heritage Ottawa Presentation for December Convention - PPT" (2022).

6-C- Upcoming or planned publications:

- Mariana Esponda and Federica Goffi have prepared a presentation on adaptive reuse for the 6th Common Integrative Seminar on April 17, 2023.
- The Carleton site leaders are in discussions with partners to plan a roundtable at the National Trust Conference in October 2023 on policy and adaptive reuse.
- Student researchers will be presenting their theses, which relate to architectural adaptation and quality, through future Heritage Ottawa events.
- The Carleton site leaders are in preliminary discussions about organizing a symposium on adaptive reuse at Carleton University in 2025.
- Lengies, Melissa, "Memory and Reveal, Empowering communities through new uses for adaptive reuse for existing buildings" Graduate thesis. Carleton University. (Fall 2023).
- Quibell, Taylor. Title (tbc) Graduate thesis. Carleton University. (Fall 2023).

RESEARCH SITE: Laurentian University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 18

Names of partners:

   ***Researchers*:**
   - Bassett, Shannon (McEwen School of Architecture) (MSoA)
   - Galvin, Terrance (site leader) (McEwen School of Architecture) (MSoA)
   - Strickland, Thomas (McEwen School of Architecture) (MSoA)

   Citizen Groups:
   - Coalition for a Liveable Sudbury (CLS) (Naomi Grant, Will Morin)
   - Uptown Community Action Network (CAN), Sudbury (Cortney St. Jean)
   - reThink Green, Sudbury and North Bay (Simon Blakeley)
   - Rainbow Routes, Sudbury (Daniel Barrette)
   - Building Equity in Architecture [North] (BEAN) (various voices including Shannon Bassett)

   City and Public Order:
   - City of Greater Sudbury/Ville de Grand Sudbury (Stephen Monet, Jennifer Babin-Fenske, Melissa Riou + former City Councillor Geoff McCausland)

   Professional organizations:
   - NOSA (Northern Ontario Society of Architects), Sudbury (Amber Salach: no representatives have participated in activities thus far)
   - OAA (Ontario Association of Architects) (no representatives have participated thus far)

1- Title of the situated project:

Material Culture and Social Prosperity for northern Ontario

2- Summary of the problem and research questions:

We have two research questions that relate to our northern context:

1. How do material resources impact the design of the built environment;
2. How do we define 'social prosperity' for the design of the built environment in the north.

We are exploring these two parallel questions through a list of relevant case studies, both of local buildings as well as of non-buildings (parks, community gardens, waterfront plans, street improvement, etc. We are working on a definition of 'social prosperity' from a wide variety of voices and perspectives. This is critical to co-create a holistic definition of social prosperity, not

only with our partners, but ultimately through designing a process of engagement and policy making that is inclusive. This will require the 5-years of the research program.

Our premise is that social prosperity begins with a healthy watershed, and trickles down through all scales, including the human scale, progressing down to the tiniest microbe. Traditional knowledge and ecological thinking are required at all scales of design, in unison. How can this way of thinking be reinforced by managing the forest, by biodegradable materials, by clean water, and by built environments that are as productive as a garden?

Student researchers have begun to critically document the Vale Living with Lakes Centre for freshwater; The Indigenous Sharing and Learning Centre at Laurentian; the Francophone Place des Arts, and the Master Plan for Prince Arthur's Landing in Thunder Bay (including its outdoor bent-wood theatre). These projects embrace northern culture and heritage through materials, cross-programming, or drawing people in through specific meaning.

3- Ethical approval

Approval Period: Upon completing our application, LU's Research Ethics Board (REB) approved the project on 26 Sept. 2022. This allowed us to conduct the first year of research without further approval, or until we engage human subjects.

In addition, each LU Researcher must complete an online *Tri-Council Policy Statement* (TCPS 2) 'Certificate' regarding 'Ethical Conduct for Research Involving Humans.' This series of modules requires approximately 4 hours to complete.

Approving Agency Number: Laurentian University, Research Ethics Board (REB):
REB # 6021276 (please see attached *Exemption Form* for 2022-23)

4- Summary of research activities involving local partners:

Our first 10 months have been spent getting the partners together, building trust, and having a series of zoom meetings to define the scope of our situated project. Much discussion has taken place regarding the finding of a 'common ground' or 'common language,' given that the various groups have quite different terminology to describe design, architecture, and the qualities of the built environment. The Coalition for a Liveable Sudbury (CLS) has been quite critical and fervent that if we are to succeed over the 5-years of the project, then we must collectively co-create a process that is truly inclusive for our research.

As a result, we have worked intensely on developing a work-plan for the second year of the grant that includes community meetings, community facilitators, and inviting certain groups for specific events. These events will take place at various venues, including the MSoA, the new Sudbury Mall (potentially) and various pop-up events at community gardens and other Sudbury community events in neighbourhoods and community settings. We are planning a clear set of events where we listen to wider and marginalized groups. Through this method, our cluster is confident that we will begin to bridge between the 'academic' language of the City or the University, with the 'lived experience' of the various individuals who have much to say about what would make Sudbury and the north a more vibrant place, true to its values and multi-cultural heritage.

We had planned to have a community event at the McEwen School of Architecture (MSoA) in April, but the facilitator's fees far exceeded our modest budget, so this event has been postponed until May or June. In the meantime, preparing posters from the *Sudbury2050* competition, preparing accessible case study material, getting announcements out in our citizen group's newsletters, and discussing some form of interactive app for recording our events, are all parts of our working method moving forward.

The co-creation of a process that involves everyone is the foundation for a definition of social prosperity, as one of our key questions related to quality of life as well as of the built environment. This is coupled with a focus on environmental design for the north, and the use of local resources in the design of buildings as well as the overall built environment. As an approach to our cluster's roadmaps, our approach is to use multiple resources and documents already in place, including previous studies done by the City on the Donovan Neighbourhood and the Energy Plan (CEEP), as well as ideas found in the *Sudbury2050* international competition, as a basis for action moving forward.

Finally, we have added reThink Green, Rainbow Routes, and BEA North as three additional citizen groups who will expand our citizen network and contribute more diversity to the issues that we have addressed as central to our research cluster. Hurry slowly, *hâter lentement*, remains our motto to move forward in a 'good way,' referring back to indigenous knowledge.

5- Summary of student engagement and names of students by study cycle:

Undergraduate: Hailee Thompson (3rd year BAS)

Graduate: Sydney Sheppard (M.Arch 2nd year), Chris Johnson (M.Arch 2nd year), Alex Polito (M.Arch 1st year)

Postgraduate: *n/a*

Our group of researchers has been compiling the pros and cons of several case studies chosen by the research cluster as a whole. Each student is studying one northern building along our theme of material culture. Materials chosen and the design stories around these choices are the focus on wood, local timber, indigenous knowledge, etc. In addition to the 4 case studies, the students are collectively analyzing the master plan for the Thunder Bay waterfront, which is a superb example of public – yet inclusive - development on the shores of Lake Superior. These will be uploaded to the overall *livingatlasofquality.ca* website in May.

Secondly, the theme of social prosperity, coupled with 'lived experience' has given rise to us compiling a list of community gardens and other places that are not so focussed on individual architecture as they are on issues related to inclusiveness. This list is still evolving and will continue to guide our second tier of case studies over the 5 years. As our intent is to co-create a process around diversity, lived experience, marginal voices, and inclusion of the wider Sudbury community as well as decision and policy makers, our group will be referencing and critiquing both lists of case studies in terms of quality of the built spaces that compose Sudbury and other northern towns and cities.

The students are learning a great deal from listening to the debates around social prosperity with the various stakeholders. Finally, Sydney Sheppard has participated in the CIS talks and

attended the conferences in December 2022 and May 2023, as well as been part of the PG Student Committee. We will have 3 students participating at the Calgary conference in May.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Galvin, Terrance, "Under One Roof: Grand Sudbury's New Place des Arts." *Canadian*

Architect, vol. 67, No. 8 (Nov. 2022). iQ Business Media Inc., pp. 35-40. Article on one of our northern building case studies.

6-B- Publications connected to the partnership project:

Bassett, Shannon and Terrance Galvin. "Learning from Sudbury: Reading the Sudbury 2050 Urban Design Ideas Competition." <u>Session</u>: Strategies for Urban Revival in Canadian Cities and Towns. Conference paper presentation at the *Society for the Study of Architecture in Canada* (SSAC), Montréal, 27 May 2022. Oral presentation and published abstract. Session moderated by Prof. Shannon Bassett.

Bassett, Shannon. "Reading the Sudbury 2050 Urban Design International Ideas Competition: A Toolkit of Potential Design Strategies for Urban Revival and Renewal of North American Towns and Cities Afforded Through Ecological Urbanism." Conference paper presented at the Council of Educators in Landscape Architecture (CELA), San Antonio, Texas, 15-18 March, 2023. Oral presentation and published abstract.

Morin, Will. *Bawaajigam* (to Dream) Exhibition at Place des Arts, Sudbury. On display from October 13-15, 2022. Interactive art exhibition with the community, as part of Will Morin's 6-week artist-in-residency at the PdA. This was all about people making art together.

> *For his exhibition, Bawaajigan, which means "dream" in Anishinaabemowin, local Ojibway / Anishinaabe artist and educator Will Morin is inviting the entire Sudbury community to a participatory exhibition. Taking the form of a temporary studio, the public's contribution will help develop and activate various installations through the use of language and history. Reflecting on the notions of interconnection and integration within his practice, the artist wishes to create a space for dialogue and knowledge sharing.*

6-C- Upcoming or planned publications:

None to report at this time.

RESEARCH SITE: University of Waterloo
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 14

Names of partners:
    ***Researchers*:**
    Faculty:
    - Aijazi, Arfa
    - Araji, Mohamad
    - Atkins, Andrea
    - Blackwell, Adrian
    - Correa, David
    - Przybylski, Maya

    Students:
    - Wang, Sylvie
    -
    Citizen Groups:
    - Climate Action Waterloo Region (Kyra Chisholm)
    - Union Coop (Sean Campbell)
    - YIMBY (Melissa Bowman)

    City and Public Order:
    - Region of Waterloo (Judy Maan Miedema, Jennifer Murdoch, Ryan Pogrzeba, Jeff Schumacher
    - City of Cambridge (Tanya Gies, Lisa Prime)
    - City of Waterloo (Michelle Lee)

    Professional organizations:
    - Masonry Council of Ontario (Andrew Payne)
    - ERA Architects (Graeme Stewart)
    - Human Studio (Bruce Haden)
    - LGA Architectural Partners (Janna Levitt)

1- Title of the situated project:

The Long-Term Costs of the Rapid Construction of Multi-Unit Residential in Waterloo Region

2- Summary of the problem and research questions:

Background

The Waterloo Region (WR) has been experiencing an explosion in the construction of high-rise condominiums. The rapid construction of these buildings, to capitalize on their profitability, raises fundamental questions about their environmental and social effects, including critical considerations for lifecycle assessment, including energy performance and embodied carbon, and for core community housing needs of suitability for family size and ability, adequate repair, and affordability. This research undertakes a longitudinal study of high-rise buildings in the region built in different eras of housing to better understand possible futures and potential failures of contemporary residential buildings.

Research Problem

High-rise residential buildings in WR supply the region with much-needed housing stock. Decisions shaping the *quality* of the construction are guided by developers whose financial models are focused on short term returns, leaving the long-term performance of these buildings uncertain. It is crucial to assess the life-cycle of materials used in their construction and their operational energy and carbon use. Most new construction is being built for workers in the Region's growing high-tech economy, which changes the demographics of central areas and research needs to be done to understand the effects of these changes on core housing needs.

Research Objectives

In this research, we propose a longitudinal study that will allow us to:

1. Better understand the long-term social and environmental effects of high-rise residential construction in Waterloo Region.

2. Find ways to improve processes of planning, design, construction, renovation, reuse, and demolition of high-rise residential buildings in Waterloo Region.

3- Ethical approval

- Approval Period: NA
- Approving Agency Number: NA

4- Summary of research activities involving local partners:

Over the first year we have met with partners each term and have built up the partnership team to include three citizen groups, the regional municipality and two cities, one professional association and three professional firms focused on apartment housing. This gives us citizen perspectives on the environmental costs of construction, an understanding of the importance of high-density development, and ways to make housing more affordable in the Region.

We also have robust participation from the Region of Waterloo's planning and affordable housing divisions. The region has provided data on publicly funded buildings in the region and helped us shape the periodization of housing that we are pursuing. It is important for us to

have participation from the three cities within the region, we have had participation from Waterloo and Cambridge, but unfortunately do not yet have participation from Kitchener. While the region directs affordable housing the cities have control over zoning and planning controls that govern housing. We will be seeking data on private development from the Cities.

Finally, our professional partners have provided feedback on the research to date in our partner roundtables held once a term. Andrew Payne of the Masonry Council of Ontario attended the Montreal conference and provided meaningful feedback to the research team there.

In addition, Bruce Haden of Human Studio gave a workshop to the team on Fluid Sociability a program he has developed which we may use and test within this research project to better understand how building form affects sociability.

5- Summary of student engagement and names of students by study cycle:

In the first year of the grant we only employed one student on this project.

Graduate**:** Sylvie Wang worked on a literature review for the research and mapped the development of condominiums in Waterloo Region over the past 20 years, allowing the research team to better understand the locations of recent high-rise multi-unit residential buildings in the region. She also participated in the Montreal National conference, joining the

6- List of dissemination products related or connected to the partnership project:

We have not disseminated any of our research findings beyond the Waterloo school of architecture or the national conferences yet.

RESEARCH SITE: Concordia University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 03 / 20

Names of partners:
    ***Researchers*:**
      - Cucuzzella, Carmela
      - Eicker, Ursula
      - Ziter, Carly
      - Joy, Megan
      - Hammond, Cynthia

    Citizen Groups:
      - CRE Montreal (Emmanuel Rondia, Blaise Remillard, Nilson Zepeda)
      - Vivre en Ville (Gabriel Cote, Victor Bouguin)
      - GRAME (Eva Doan-Lavoie)

    City and Public Order:
      - Design Montreal
      - City of Montreal

    Professional organizations:
      - none attended our local meetings but we plan to invite 1-2 architects that have designed elderly residences – we will look in the database for names.

1- Title of the situated project:

Retrofitting Spaces for Health and Aging in the City

2- Summary of the problem and research questions:

This research axe will bring representatives of diverse, aging urban communities into direct dialogue with architects, city procurement officers, urban planners, and the students who will be designing and planning the cities of the future. Positioning older residents as a resource and source of knowledge rather than a design or health problem to be solved, this research will provide a platform upon which aging citizens intervene directly into questions of urban access, urban design, and equity in the built environment. Just as multiple voices are essential to building genuine social equity, so too is it necessary to open the design professions and the political echelon to varied perspectives. This axe is driven by the recognition that spatial justice for aging urban citizens is an essential element of a sustainable society and will actively foster the inclusion of diverse voices within urban policy discourse and practice, and the disciplines of architecture and urban planning. In addition, the impact and experiences of climate change in cities for older adults is of crucial importance. Further, there are important alignments and tensions between smart and sustainable cities and aging. Municipalities have climate change

strategies and age-friendly strategies but how are they aligned and how do they conflict when it comes to approaches to the built environment?

We ask the following questions: (1) How will listening to experiences of older citizens help to identify the exemplar experiences for aging populations in relation to the built environment? (2) How can we retrofit our spaces to address health and aging populations from the lens of carbon neutrality, livability, and urban biodiversity? (3) What are the measurable indices and qualitative descriptions to help identify exemplarity? (4) How do these types of qualities in the city help us align with UN SDGs?

This research project will focus on developing maps and related indices, photo documentation, models, all related to the collection of data on livability, biodiversity and decarbonization of spaces and places for health and aging in the city. We understand that quality in the built environment requires a systemic approach to better identify how these qualities are linked and mutually influenced.

3- Ethical approval

- Approval Period: Completed from June 3, 2022 – June 2, 2023
- Approving Agency Number: 30016744

4- Summary of research activities involving local partners:

The core research team has met weekly to discuss the research related to the collected maps, case studies, policies and interviews data. We have initiated research on 5 case studies (elderly residences or community centers dedicated to the elderly), 1 policy document, and several maps that help understand the relationship between the form of the city and the location of elerly residences.

We have called upon our local partners to identify exemplar case studies for us to study, data that we can use for contextualizing our case studies, and other criteria for furthering our analytical grids.

We have met with our local partners twice in 2022 and will be meeting them in April 2023 in preparation for the 2nd in person national convention taking place in Calgary. The partners that we have met with are: CRE Montreal, Vivre en Ville, GRAME, Table de concertation des aînés de l'Île de Montréal, City of Montreal, and Design Montreal.

During our first local partners meeting, held in early August 2022, we met to help the whole team better understand the partnership project and its aims. We also shared with everyone the expectation of the 1st in-person national convention. This was an important first step, even if we did not present much work. We did share expectations and aims for the partnership.

For the 2nd local partners meeting which took place in November 2022, we presented our first sereis of case studies and maps. The goal of this meeting was to co-create the set of criteria important across all the partners for our object of focus, data collection methods that would be promising, and analysis methods for extracting the information that we will need for the creation of the roadmaps.

One question that continues to be highlighted up are the formats, expectations, and information contained in the roadmaps. This is an area that we will be working through this year, along with the co-creation of 1-2 compound KPIs, and the systemic understanding of the interrelated criteria that we have begun to collect. We also aim to develop systemic maps that will contribute to the roadmaps, but have not yet decided how this will take place.

5- Summary of student engagement and names of students by study cycle:

Undergraduate**:** none

Master:
> Tatev Yesayanen (Livability),
> Kayleigh Hutt Taylor (Biodiversity)

Doctorate:
> Morteza Hazbei (livability),
> Firdous Nizar (Livability),
> Negar Rahimi (Decarbonization),
> Mohammad Seyedabadi (Decarbonization)
> Kayleigh Hutton (Biology)

The students are mentored through the research process. The site leader meets with some or all of them on a weekly basis to discuss progress and ways forwards.

The students are learning a diversity of methodological approaches for studying such an urban situation from the complex lens of livability, biodiversity and decarbonization. More importantly, we are working together to better understand how to study quality along three main areas in an integrated manner.

To do this, we begin by studying at the various scales. *First*, they are taught how study at the city scale, specifically the relationship between the locations of facilities dedicated for the elderly and their surrounding spaces. *Second*, they are taught how to study specific residences or community centers for the elderly, where we aim to understand the lived experience, decarbonization and biodiversity recommendations linked to the livability situation. This is done through photo documentation, interviews, and focus groups with the elderly population, and the employees of the residences or centers we study. *Finally*, the students are taught how to analyse policy documents related to aging, especially in extracting what the city has prioritized, while providing a benchmark for comparison across our cases.

The students are also brought into continual contact with our local partners. They learn how to prepare meetings for and work with our local partners. At the local partners meetings, the students present the work they have completed over the preceding period, after which we discuss how the elderly facilities and surrounding areas can better service the aging population that uses them. This year we are planning to co-develop Knowledge performance Indicators (KPIs) with our partners. We are aiming to create 1-2 compound indicators to assess the situations of the elderly in the city.

The students are also learning how we incorporate the data collected by our partner organizations which is necessary to contextualize our observations and forge ahead to areas

that are of keen interest to them too. They prepare the documents needed for all the local partner meetings and provide the reports afterwards.

We are also running a summer school on UN SDGs and Social Transformation where one of the cases we are using as a case study for the course is dedicated to health and aging in the city and is co-developed with one of our partners (CRE Montreal). The course adopts systemic modeling to articulate the dynamic nature of developing a project dedicated for health and aging in the city. These systemic models that are the outcome of this course will be analysed for interesting findings for this research project. The outcome of this case study will also enable us to look at exemplarity in a broadened perspective.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Cucuzzella, Carmela, Tatev Yesayen, Morteza Hazbei, Firdous Nizar, (forthcoming 2023), "April 2023 Local Partners Meeting: Quality of Spaces for Health and Aging in the City", presented to local partners and scholars to share progress and exchange knowledge on new cases and methods.

Cucuzzella, Carmela; Chupin, Jean-Pierre (upcoming conference 2023), "Spaces for Health and Aging in the City: Improving Accessibility in the Built Environment", Liveable Cities - New York: Sustainability + Resilience, organized by City University New York, June 14-16, 2023.

Cucuzzella, Carmela; Hazbei, Morteza; Eicker, Ursula, (2023), "Assessing Quality of Spaces for Health and Aging in the City", a video presented at the Rick Hansen Foundation Annual Conference (2023, February).

Cucuzzella, Carmela; Morteza, Hazbei; El Khatib, Sara, (2022), "November 2022 Local Partners Meeting: Quality of Spaces for Health and Aging in the City", presented to local partners and scholars to share progress and exchange knowledge on new cases and methods.

Nizar, Firdous (2022), "Theme 3A _Inclusive Design – Roundtable 1-August 25-am", ROUNDTABLE REPORT: Thursday, August 25, 2022, from 9:30 to 11:00a.m., EXPECTATIONS FOR THE PARTNERSHIP ON QUALITY BY CITIZEN GROUPS + FIRST ILLUSTRATIONS OF BARRIERS TO QUALITY

El Khatib, Sara, (2022), "Theme 3A _Inclusive Design – Roundtable 1-August 25-pm", ROUNDTABLE REPORT: Thursday, August 25, 2022, from 2 to 3:30 p.m., EXPECTATIONS FOR THE PARTNERSHIP ON QUALITY BY PROFESSIONAL ASSOCIATIONS + SECOND ILLUSTRATIONS OF BARRIERS TO QUALITY

Hazbei, Morteza (2022), "Theme 3A _Inclusive Design – Roundtable 3-August 26-am", ROUNDTABLE REPORT: Friday, August 26, 2022, from 9:30 to 11:00a.m., EXPECTATIONS FOR THE PARTNERSHIP ON QUALITY BY CITIES AND REPRESENTATIVES OF PUBLIC PROCUREMENT + THIRD ILLUSTRATIONS OF BARRIERS TO QUALITY

6-B- Publications connected to the partnership project:

Book Launch + Public Debate: *"Que savons-nous des concours?",* **May 27th, 2015**

Venue: Île-de-France, l'Ordre des architectes, Paris, France, for the book *"Architecture Competitions and the Production of Culture, Quality and Knowledge: An International Inquiry"*

Debate comprised of panel:

> **Jean-Pierre Chupin**, professeur à l'Université de Montréal, coauteur et éditeur de l'ouvrage
> **Carmela Cucuzzella**, professeur à l'Université Concordia, coauteur et éditeur de l'ouvrage
> **Jean-Michel Daquin**, Président de l'Ordre des architectes d'Île-de-France,
> **Françoise Fromonot**, professeur à l'ENSA de Paris-Belleville, coauteur de l'ouvrage,
> **Loïse Lenne**, doctorante sous la direction de Antoine Picon et Pierre Chabard, coauteur de l'ouvrage,
> **Jean-Louis Violeau**, professeur à l'ENSA de Paris-Malaquais, coauteur de l'ouvrage.

> **Débat animated by Emmanuel Caille,** chief editor of d'a (Paris)

6-C- Upcoming or planned publications:

Cucuzzella, Carmela; Hazbei, Morteza; Nizar, Firdous, and Yesayen, Tatev (upcoming 2023), "Understanding the lived experience of the elderly: living in dedicated elderly residences in Montreal", to be submitted to Social Studies of the Elderly (Nature).

Cucuzzella, Carmela; Morteza, Hazbei; Nizar, Firdous; Yesayen, Tatev; Rahimi, Negar; Seyedabadi, Mohammad; Hutt-Taylor, Kayleigh, (2023), "April 2023 Local Partners Meeting: Quality of Spaces for Health and Aging in the City", presented to local partners and scholars to share progress and exchange knowledge on ideas to develop knowledge performance indicators (KPIs).

Cucuzzella, Carmela; Morteza, Hazbei; Nizar, Firdous; Yesayen, Tatev; Rahimi, Negar; Seyedabadi, Mohammad; Hutt-Taylor, Kayleigh, (2023), "November 2023 Local Partners Meeting: Quality of Spaces for Health and Aging in the City", presented to local partners and scholars to share progress, exchange knowledge on ideas to develop knowledge performance indicators (KPIs), and confirm directions for KPIs.

Cucuzzella, Carmela, (2023) "Exemplar Lived Experience", prepared for the 3rd National Convention in Calgary

Hazbei, Morteza, (2023) "Exemplar Lived Experience", prepared for the 3rd National Convention in Calgary

Eicker, Ursula (2023), "Exemplar Lived Experience", prepared for the 3rd National Convention in Calgary

Ziter, Carly (2023), "Exemplar Lived Experience", prepared for the 3rd National Convention in Calgary

RESEARCH SITE: Université de Montréal
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 14

Names of partners:
    ***Researchers*:**
    - LaSalle, Virginie
    - Helal, Bechara
    - Cormier, Anne
    - Chupin, Jean-Pierre
    - Larivière, Vincent
    - Amaral, Izabel

    Citizen Groups:
    - Institut universitaire en santé mentale de Montréal (IUSMM) (Alexis Beauchamp-Chatel)
    - Coopérative Solidarité et soins (CSS) (Édouard Bonaldo)
    - Fondation Véro et Louis (FVL) (Sarah Huxley et Katty Taillon)
    - Société Logique (SL) (Isabelle Cardinal)

    City and Public Order:
    - City of Montreal (Patrick Marmen, Jeanne Leblanc-Trudeau, Myriam Turcotte, Christine Deschamps)

    Professional organizations:
    - Cecobois (Myriam Larouche, Caroline Frenette, Simon Bellavance)
    - Provencher Roy et Associés (Sonia Gagné)
    - EVOQ Architecture (Gilles Prud'homme)
    - Affleck de la Riva (Andy Nguyen)

1- Title of the situated project:

Material Innovation in Spaces for Special Needs

2- Summary of the problem and research questions:

We propose to redefine quality in architecture through an inclusive design approach that promotes health and well-being while addressing critical aspects often neglected by standards framing the design of the built environment. More specifically, our project lies at the junction between taking into account the neurodiversity of users and the material innovation potential of wood as an emblematic material.

The relationship between the well-being of people with special needs and the built environment remains largely unexplored, and projects are underway with our partners to identify best practice in this area. For reasons of safety and risk management, spaces intended for these

users are generally subject to very strict, standardized design standards. While justifiable, this approach tends to restrict innovative design practices, thereby limiting the inherent quality of these spaces. One such contradiction concerns the materiality of designed spaces. We will focus on wood in its many contemporary forms (mass timber, engineered systems, etc.) as well as on an emblematic material at the intersection of cultural, social and economic issues.

Research questions:

- How is quality defined (and assessed, or even measured) from the point of view of users and, more extremely, from the point of view of users with specific needs?
- What is the place of performance-related variables (safety, durability, etc.) in a broader definition of quality?
- How does material innovation contribute to the quality of the built environment?

3- Ethical approval

- Approval Period: 2023-03/2024/03 (details to follow)
- Approving Agency Number: CERAH-2022-015-D

4- Summary of research activities involving local partners:

A local round table held on November 16, 2022 brought together researchers and representatives of partner organizations for a joint reflection on current guides and standards defining the quality of the built environment in Canada in general, and in Montreal more specifically. The main questions submitted to the panel were: What are the strengths (orientations, principles) and limitations (presuppositions, grey areas, omissions) of accessibility standards and guides in the Quebec context in general, and in the municipal context of Montreal? Which documents pose the most problems in inclusive design processes? Which accessibility reference works do you feel offer an approach conducive to quality improvement in general? The meeting began with a brief presentation by student researchers (future professionals in the built environment) on Quebec and Canadian universal accessibility design guides produced by Société Logique and the Rick Hansen Foundation. What emerged from this round table was a need to better define the notions used when talking about the design of inclusive built environments. In addition, tensions inherent in putting inclusive built environment design into practice were identified, including: the tension between safety and quality, the tension between a specialized design approach and universal design, as well as a tension inherent in the diversity and level of people's needs following the idea that a design specially adapted for some will become a significant environmental barrier for others. Finally, potential case studies were identified by the partners during and after the meeting, to feed into the second round-table discussion.

In addition, a number of activities bringing together partners in pedagogical or research contexts were carried out during the year, including : a presentation on inclusive design and an exploratory walk were organized by Société Logique as part of a Master of Architecture workshop, led by Professor Bechara Helal and with the participation of Professor Jean-Pierre Chupin ; Professor Virginie LaSalle acted as expert advisor to two committees of the Institut universitaire en santé mentale de Montréal (IUSMM) (governance committee and technical operations committee) for the design of a new subspecialized care unit for the adult neurodevelopmental psychiatry program, leading in particular to the formulation of architectural

guidelines; the Maison de la Fondation Véro et Louis welcomed student researchers from the partnership as part of a case study in preparation for the second round table; Professor Virginie LaSalle undertook a post-occupancy evaluation of the Maison de la Fondation Véro et Louis, focusing on the experience of the premises by the autistic people living there.

5- Summary of student engagement and names of students by study cycle:

1st cycle :
- Mak Ékoué, B.Sc. Arch.
- Annie Thao Vy Nguyen, B.Sc. Arch.

2nd cycle :
- Catherine Meunier, MArch
- Victorian Thibault-Malo, Maîtrise en théorie en design
- Jonathan Haaxe, Maîtrise en communication
- Joëlle Tétreault, M.Arch.

3rd cycle :
- Paloma Castonguay-Rufino, Doctorante Arch.
- Achraf Alaoui Mdaghri, Doctorant Arch.
- Shantanu Biswas-Linkon, Doctorant Arch.
- Mylène Charrette, Doctorante Amé.

The students were initially involved in producing content and reflecting on the issues that guided this first year of the UdeM site partnership. At the first local round table, for example, three student researchers analyzed design guides and prepared an oral and visual presentation of their findings, which they then presented to all the partners. Their contribution was considerable, as their work provided the basis for the participants' exchanges and stimulated discussion.

Similarly, several students were involved in producing content for a second local round table (held in year 2 of the partnership). In this context, six case studies were produced from the perspective of lived experience of the site; during an initial intuitive tour of the built environment, then in the light of feedback from competition and awards juries. This was an approach that required the researcher to step back from his or her specialist view of the built environment, and try to capture the experience of the site's primary and secondary users.

Les étudiants ont assisté aux séminaires proposés par le partenariat, ainsi qu'à des activités spéciales telles que celle organisée par la Fondation Rick Hansen.

Leur engagement a de plus été significatif pour l'organisation des différentes activités du site, que ce soit la préparation ou le support technique des rassemblements tenus cette année, notamment la convention de Montréal en août, la table ronde locale en novembre et la convention en ligne de décembre.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

NA

6-B- Publications connected to the partnership project:

Poster communication:
- Nader, Anne-Marie, St-Jean, Estellane, <u>Charette, Mylène</u>, Forgeot d'Arc, Baudouin, <u>LaSalle, Virginie</u>, Courcy, Isabelle, et Godbout, Roger, " A living environement adapted to the needs of autistic adults : What does literature offer? ", *It Takes All Kind Of Minds (ITAKOM)*, Édinbourg, 13-14 mai 2023.

6-C- Upcoming or planned publications:

Conferences:
- <u>LaSalle, Virginie</u>, Nader, Anne-Marie, Courcy, Isabelle, Godbout, Roger, Saint-Jean, Estellane and <u>Charette, Mylène</u>, " What autistic adults living in a residential facility consider as important factors for their well-being? ", *International Society for Autism Research (INSAR)*, Stockholm, 3-6 mai 2023.
- <u>Beauchamp-Chatel, Alexis</u>, <u>LaSalle, Virginie</u>, Farmer, Olivier, Ménard, Judith et Watts, Sam, « Populations vulnérables, société déstructurée: comment retisser un filet social avec des partenaires sociaux diversifiés », *56ᵉ Congrès annuel de l'association des médecins psychiatres du Québec (AMPQ)*, Québec, 1-3 juin 2023.

RESEARCH SITE: University of Calgary
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / April / 13

Names of partners:
    ***Researchers*:**
      - Sinclair, Brian R. (School of Architecture, Planning and Landscape) (Team Lead)
      - Dall'Ara, Enrica (School of Architecture, Planning and Landscape)
      - Nahmad Vasquez, Alicia (School of Architecture, Planning and Landscape)
      - Patterson, Matt (Faculty of Arts)
      - Milaney, Katrina (Cumming School of Medicine)
      - McCormack, Gavin (Cumming School of Medicine)
      - Van Ngo, Hieu (Faculty of Social Work)
      - Lee, Yeonjung (Faculty of Social Work)

    Citizen Groups:
    - Vibrant Communities Calgary (Meaghon Reid, Lee Stevens)
    - Federation of Calgary Communities (Leslie Evans, Adithi Lucky Reddy)
    - Sustainable Calgary (Celia Lee, Srimal Ranasinghe, Noel Keough)
    - Calgary Alliance for the Common Good (Rennie Kirby, Joan Lawrence)
    - Building Equality in Architecture Calgary (Lindsay Andreas, Sarah Danahy)
    - Calgary Homeless Foundation (Matt Nomura)

    City and Public Order:
    - City of Calgary (David Down, Thom Mahler)

    Professional organizations:
    - Alberta Association of Architects (Grace Coulter-Sherlock, Samuel Oboh, Dustin Couzens, Jonathan Monfries)
    - Calgary Construction Association (Bill Black)

1- Title of the situated project:

Designing Inclusive, Sustainable & Healthy Cities

Within the SSHRC Partnership Grant Project entitled "Quality in Canada's Built Environment" the Calgary Research Team is focused on the challenge of 'Designing Inclusive, Sustainable + Healthy Cities'. Given the complexity of this challenge, the team brings together academics drawn from a range of disciplines, community partners representing diverse voices, design + construction professionals, and members of government. Together these individuals & organizations, with deep experience and rich knowledge, are exploring key aspects of cities,

buildings, spaces, and places that will, through their design, contribute positively to Quality of Life (QoL).

2- Summary of the problem and research questions:

- How can our understanding of design excellence be broadened, beyond a current focus on form and aesthetics, to also encompass **inclusion, sustainability and health**?
- How can we reconsider and redesign our spaces, places, buildings and neighborhoods to respond to our new broader and more equitable definitions and **understanding of quality in the built environment**?
- How do we contribute to **strengthening and advancing inclusion in Calgary** communities? And what role does **design** play, within this pursuit, to heighten inclusion, improve public health, and secure a more sustainable future?

3- Ethical approval

- Approval Period: September 15, 2022 - September 15, 2023
- Approving Agency Number: REB22-0765_MOD1

4- Summary of research activities involving local partners:

Our initial year in the SSHRC PG 'Quality in Canada's Built Environment' was very active and very productive. In addition to developing ways of working together over sectoral lines and disciplinary boundaries, we also launched and realized a number of discrete research activities. These included the planning, organization and conduct of several community events, including consultation sessions and roundtables. We developed strategies for case study analysis and were very busy working in the field on assessment of said cases (12 total – all still in process). Several analytical studies were launched, including a critical review of information from the Montreal Convention (2-page participant submissions), analysis and reporting on roundtable data, ethics applications formulated and shepherded through to approval, attention to and creation of digital content/footprint. and so forth. We prepared a special video production, addressing accessibility, for the Rick Hansen Foundation. The Calgary team was also very consumed, over half of the reporting period, with planning and logistics concerning the in-person convention to be hosted by the Calgary site early in May 2023. Overall, the inaugural year of the 5-year research project was very active, interesting, productive, and successful. Momentum continues to build, and traction is high, especially as the team learns to collaborate and collectively innovate. We considered the goal of learning to work as a diverse & effective team to be as vital as the actual conduct of discrete and bounded research ventures.

5- Summary of student engagement and names of students by study cycle:

Within the Calgary site we were able to hire and engage many student researchers. The cohort of RA's were very busy over our first year (Year One 2022-2023) working on a rich array of activities and projects.

Undergraduate**:**

- **Adrian De Vera***, Bachelor of Geography Candidate (4th Year)*
- **Aimee Essington***, Bachelor of Social Work Candidate (4th Year)*
- **Belle Gutierrez Kellam**, *Bachelors of Sociology Candidate (4th year)*

Graduate**:**

- **Hasti Masihay Akbar***, M.D., Master of Science Candidate, Community Health ScienceEpidemiology (1st Year)*
- **Natasha Levinski***, Master of Architecture* Candidate (2nd Year)
- **Sonia Kamal***, Master of Planning Candidate (2nd Year)*
- **Taly-Dawn Salyn***, Master of Social Work Candidate, Specialization in International & Community Development (1st year)*
- **Traci Berg,** *Master of Landscape Architecture Candidate (2nd year)*
- **Nooshin Esmaeili**, *Architect AAA, MRAIC, PhD Candidate (2nd year)*

6- **List of dissemination products related/connected to partnership project:**

6-A- Publications directly related to the partnership project:

- **Akbar, Hasti Masihay** and **Sinclair, Brian R**. "Analysis | Synthesis SSHRC PG Calgary Community Roundtable #1 (F-2022)". University of Calgary, 2023.
- **Dall'Ara, Enrica, Sinclair, Brian R., Patterson, Matt, Esmaeili, Nooshin, Levinski, Natasha, Belle Gutierrez Kellam**. "Acceptance, Access, Design + Dignity: Considering Alternative Paths to Quality in Built Environments". Video Production for the Rick Hansen Foundation Convention, Vancouver 2023.
- **Esmaeili, Nooshin** and **Sinclair, Brian R.** « Design Quality Reset: Interrogating Definition, Delineation, Measurement + Meaning in a Shifting Ethos". Advances in Architecture, Urbanity, and Social Sustainability Volume XII, Symposium, Azrieli School of Architecture and Urbanism. 2022.
- **Sinclair, Brian R.** "Architecture + Quality: Rethinking, Rebooting + Resilience in a Radically Shifting Ethos". Presentation at the 3rd IAFOR International Conference on Arts and Humanities in Hawaii (IICAH-Hawaii), Honolulu, Hawaii, USA, 2023.

6-B- Publications connected to the partnership project:

Peer-Reviewed Publications

- Khalilbeigi, A., **Nahmad Vazquez, A.** "Game engines as a performance-aware participatory and interactive design platform: a prototypical workflow", Annual modeling and Simulation Conference 202, ANNSIM 2023, The society for Modeling and Simulation International (SCS) (2023).

- **Nahmad Vazquez, A**. and Fox, Kris. "Using Topology Optimization in landscape architecture for the design and fabrication of urban elements using concrete", CELA 2023: Align I Realign, San Antonio TX (2023).
- **Esmaeili, Nooshin**, and **Sinclair, Brian R.** "Soul, Space + Unity: Exploring Time and Temporality in Persian Architecture with Reference to Sufism". Biannual open access peer-reviewed Journal ArchiDOCT #19 "Temporalities II. 2023
- **Esmaeili, Nooshin**, and **Sinclair, Brian R.** *"Soul, Space + Unity: Exploring Time and Temporality in Persian Architecture with Reference to Sufism"*. The Canadian Association for the Study of International Development (CASID) 2022.
- Khan, M., Ferrer, I., **Lee, Y.**, Deloria[**], R., & Kusari[**] K., Migrino, L., Danan, K., & Yen, J. (OnlineFirst). "We're always looking at the dollars and cents": The financial well-being of older racialized immigrants in Canada through the lens of service providers. *Journal of Family and Economic Issues.* https://doi.org/10.1007/s10834-023-09889-w
- Bierman, A., <u>**Lee, Y.**</u>, & Penning, M. (OnlineFirst). Mental health benefits and detriments of caregiving demands: A nonlinear association in the Canadian Longitudinal Study on Aging. *Journal of Aging and Health.* https://doi.org/10.1177/08982643221125258
- Kelly, C., Dansereau, L., FitzGerald, M., **Lee, Y.**, & Williams, A. (2023). Inequities in access to directly-funded home care in Canada: A privilege only afforded to some. *BMC Health Services Research, 23*(51). http://doi.org/10.1186/s12913-023-09048-9
- Kelly, C., Dansereau, L., Sebrina, J., Aubrecht, K., FitzGerald, M., **Lee, Y.**, Williams, A., & Hamilton-Hinch, B. (2022). Intersectionality, health equity and EDI: What's the difference for health researcher? *International Journal for Equity in Health, 21*(182). https://doi.org/10.1186/s12939-022-01795-1
- Li, L., **Lee, Y.**, & Lai, D. (2022). Mental health of employed family caregivers in Canada: A gender-based analysis on the role of workplace support. *The International Journal of Aging and Human Development, 95*(4), 470-492. http://doi.org/10.1177/00914150221077948
    - **Lee, Y.**, & Li, L. (2022). Evaluating the positive experience of caregiving: A systematic review of the Positive Aspect of Caregiving Scale. *The Gerontologist, 62*(9), e493-e507.
    https://doi.org/10.1093/geront/gnab092

Aucoin J, Aryal S, **McCormack GR**, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclists' Perceptions of Safety: Applying the Haddon's Matrix to a Qualitative Study. Canadian Injury Prevention Conference, Vancouver, British Columbia. (November 2-4, 2022).

- Aucoin J, Zanotto M, HubkaRao T, Doan Q, Beno S, Stang A, Howard A, **McCormack**

GR, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclist Injuries and the Built Environment: A Case-Crossover Study. Canadian Injury Prevention Conference, Vancouver, British Columbia. (November 2-4, 2022).

- <u>Frehlich L</u>, <u>Christie C</u>, Ronksley P, Turin TC, Doyle-Baker P, & **McCormack, G**. The neighbourhood built environment and health-related fitness: A systematic review of quantitative findings. 9th International Society for Physical Activity and Health Congress, Abu Dhabi (October 23-26, 2022)

- Aucoin J, Zanotto M, HubkaRao T, Doan Q, Beno S, Stang A, Howard A, **McCormack**

GR, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclist Injuries and the Built Environment: A Case-Crossover Study. World Conference on Injury Prevention and Safety Promotion. (June 27-29, 2022).

- Aucoin J, Aryal S, **McCormack GR**, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclists' Perceptions of Safety: Applying the Haddon's Matrix to a Qualitative Study. - World Conference on Injury Prevention and Safety Promotion. (June 27-29, 2022).

- Aucoin J, Zanotto M, HubkaRao T, Doan Q, Beno S, Stang A, Howard A, **McCormack GR**, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclists: Where are they getting injured and built environment risk factors. Canadian Association of Road Safety Professionals Conference. (June 19-21, 2022).

- Aucoin J, Aryal S, **McCormack GR**, Nettel-Aguirre A, Winters M, Hagel, B. Child Bicyclists' Perceptions of Safety: Applying the Haddon's Matrix to a Qualitative Study. Canadian Association of Road Safety Professionals Conference. (June 19-21, 2022).

- Koohsari MJ, Yasunaga A, Oka K, Nakaya T, Nagai Y, **McCormack GR.** Place attachment and walking behaviour: mediation by perceived neighbourhood walkability. Landscape & Urban Planning, 235, 104767 (2023).

- Massolo A, Mori K, Rock M, **McCormack GR**, Liccioli S, Giunchi D, Marceau D, Stefanakis E. Fecal contamination of urban parks by domestic dogs: another tragedy of the commons. Scientific Reports. 13(1):3462 (2023).

- Koohsari MJ, **McCormack GR**, Nakaya T, Yasunaga A, Fuller D, Nagai Y, Oka K. The Metaverse, the built environment, and public health: Opportunities and uncertainties. Journal of Internet Medical Research, 25:e43549 (2023).

- Wong JB, McCallum KS, Frehlich L, Bridel W, McDonough MH, **McCormack GR**, Fox K, Brunton L, Yardley L, Emery CA, Hagel B. The feasibility and impact of a painted designs intervention on the physical activity of elementary school children. Leisure/Loisir, 47(2), 181-207. (2023).

- **McCormack GR**, Koohsari MJ, Vena JE, Oka K, Nakaya T, Chapman J, Martinson R, Matsalla G. Associations between neighbourhood walkability and walking following residential relocation: findings from Alberta's Tomorrow Project. Frontiers in Public Health, 10:1116691 (2023).

- Koohsari MJ, Yasunaga, A, **McCormack GR**, Shibata A, Ishii K, Nakaya T, Hanibuchi T, Nagai Y, Oka K Depression among middle-aged adults in Japan: The role of the built environment design. Landscape and Urban Planning. 231, 104651. (2023).

- **McCormack GR**, Spence JC, McHugh T-L, Mummery K. Neighbourhood walkability and changes in physical activity and sedentary behaviour during a 12-week pedometerfacilitated intervention. PLoS One. 17(12):e0278596 (2022).

- Doiron D, Setton E, Brook J, Kestens Y, **McCormack GR**, Winters M, Shooshtari M, Azami S, Fuller D Predicting walking-to-work using Google Street View

imagery and deep learning: a study of seven Canadian cities. Scientific Reports, 12, 18380 (2022).

- Frehlich L, Christie C, Ronksley PE, Turin TC, Doyle-Baker P, **McCormack GR** The Neighbourhood built environment and health-related fitness: A systematic review. International Journal of Behavioral Nutrition and Physical Activity. 19, 124. (2022).

- **McCormack GR**, Patterson M, Frehlich L, Lorenzetti DL. The association between the built environment and intervention-facilitated physical activity. A systematic review. International Journal of Behavioral Nutrition and Physical Activity, 19(1):86. (2022).

- Nichani V, Koohsari MJ, Oka K, Nakaya T, Shibata A, Ishii K, Yasunaga A, Vena JE, **McCormack GR**. Associations between neighbourhood street connectivity and sedentary behaviours in Canadian adults: Findings from Alberta's Tomorrow Project. PLoS One, 17(6): e0269829 (2022).

- Christie CD, Friedenreich CM, Vena JE, Turley L, **McCormack GR**. Cross-sectional and longitudinal associations between the built environment and walking: effect modification by socioeconomic status. BMC Public Health, 22(1):1233 (2022).

- Christie CD, Bell M, **McCormack, GR**. A Brief Report on the Affordable Housing Neighbourhood Environment Walkability (ANEW) Study. Calgary, Alberta, Canada. (2023).

- Brady, J., Mouneimne, M*. & **Milaney, K.** Environmental and systems experiences of persons with spinal cord injury and their caregivers when transitioning from acute care to community living during the COVID-19 pandemic: a comparative case study. Spinal Cord Ser Cases 9, 8 https://doi.org/10.1038/s41394-023-00561-x (2023).

- Caron-Roy S, Lee YY, Sayed SA, Lashewicz B, **Milaney K**, Dunn S, O'Hara H, Leblanc P, Prowse RJL, Fournier B, Raine KD, Elliott C, Lee Olstad D. Experiences and perceived outcomes of low-income adults during and after participating in the British Columbia Farmers' Market Nutrition Coupon Program: a longitudinal qualitative study. J Acad Nutr Diet. 122 (12), 2257-2266. doi: 10.1016/j.jand.2022.03.016. Online ahead of print. (2022)

- Garcia-Jorda, D., Fabreau, G., Kwan Wing Li, Q., Polachek, A., **Milaney, K**., McLane, P., McBrien, K.A. Being a member of a novel transitional case management team for patients with unstable housing: An ethnographic study. BMC Health Services Research,

22(232). https://doi.org/10.1186/s12913-022-07590-6 (2022)

Milaney, K., Haines-Saah, R., Farkas, B., Egunsola, O., Mastikhina, L., Brown, S., Lorenzetti, D., Hansen, B*., McBrien, K., Rittenbach, K., Hill, L.*, O'Gorman, C.*, Doig, C., Cabaj, J., Stokvis, C., Clement, F. A scoping review of opioid harm reduction interventions for equity-deserving populations. Lancet Regional Health – The Americas, 12, https://doi.org/10.1016/j.lana.2022.100271(2022)

- **Milaney, K.,** Rankin, J. & Zaretsky, L. The Modern day asylum: A mad studies informed approach to understanding de-Institutionalization, mental distress, trauma and chronic homelessness. Canadian Journal of Disability Studies. 11(1), 91-118. (2022).
- **Milaney, K**., Bell, M.*, Ramage, K., Screpnechuk, C., & Petriuk, C. Examining housing as a determinant of health: Closing the 'poverty gap' to improve outcomes for women in affordable housing. Open Public Health, 15, DOI: 10.2174/18749445-v15e2202080(2022).
- **Patterson, Matt.** "Revitalization, Transformation, and the 'Bilbao Effect': Testing the Local Area Impact of Iconic Architectural Developments in North America, 2000 to 2009." *European Planning Studies* 30(1): 32-49. 2022.
- Kohut, Chris‡ and **Matt Patterson**. "Being Homeless at the 'End' of Homelessness:

Navigating the Symbolic and Social Boundaries of Housing First." *Canadian Review of Sociology* 59(1): 59-75. (Equal co-authors, ‡Undergraduate co-author) 2022.
- Valdeolmillos, Nur Alah Abdelzayed, Furlan, Raffaello, Tadi, Massimo, **Sinclair, Brian R**. and Awwaad, Reem. "Towards a knowledge-hub destination: analysis and recommendation for implementing TOD for Qatar national library metro station". CoAuthored Journal: Environment, Development and Sustainability. Published 2023. DOI:

10.1007/s10668-023-03118-y
- **Sinclair, Brian R.,** Furlan R., Esmaeili N. and Al-Mohannadi A. "Design, Build, Occupy, Adapt: Critical Considerations of Architectural Education in an Ethos of Upheaval". . 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022.
- **Sinclair, Brian R**. "Agile Architecture: Cross-Cultural Critical Considerations + Consequences of Mutability in Design". 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022.
- **Sinclair, Brian R.** "Agile Architecture: Cross-Cultural Critical Considerations + Consequences of Mutability in Design". 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022.
- Mortezaee, Farhand and **Sinclair, Brian R**. "Design efficacy at a distance: Collaboration between remote design teams". 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022
- Esmaeli, Nooshin and **Sinclair, Brian**. "Wisdom of Islamic Architecture: Exploring the

Buildings of the Past in Search for the Spirit of Place". 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022

Imam, Salah and **Sinclair, Brian.** "Agile Architecture: How Do We Design for Time?". 3rd VIBRArch – Valencia International Biennale of Research in Architecture. Universitat Politechnica de Valencia, Valencia, Spain, 2022.

- **Sinclair, Brian R.** "Architecture at a Critical Threshold: Meaningfully Migrating from Luxury to Essential Services". Symposium: Architecture, Urbanity & Social Sustainability of 21st Century: In Search of New Paradigms. Published in Advances in ARCHITECTURE, URBANITY and SOCIAL SUSTAINABILITY. Volume XII. G. Andonian (Editor). Canada, 2022.

Conference Presentations :

- **Esmaeili, Nooshin**, and **Sinclair, Brian R.** "Considering Health + Wellness Beyond
Convention: Spirituality, Space, and the Critical Case of Sufism". ARCC-EAAE 2022. International Conference. RESILIENT CITY: Physical, Social, and Economic Perspectives: Architectural Research Centers Consortium (ARCC). Poster. 2022.

- Kelly, C., Dansereau, L., FitzGerald, M., **Lee, Y.**, & Williams, A. *Inequities in access to directly-funded home care in Canada: A privilege only afforded to some*. Paper presented at the Pacific Rim International Conference on Disability and Diversity. Honolulu, HI, USA.   (March 2023).

- Dean, Y., Srivastava, R., **Lee, Y.**, & **Ngo, H.** *How do racialized and gendered educators and administrators navigate equity, diversity, and inclusion work in post-secondary education?* Panel session presented at Annual Hawaii International Conference on Education. Honolulu, HI, USA. (January 2023*).*

- **Ngo, H.,** Srivastava, R., **& Lee, Y.** *By design: An integrated approach to equity, diversity and inclusion in higher education*. Workshop session presented at Annual Hawaii International Conference on Education. Honolulu, HI, USA. (January 2023).

- **Lee, Y.**, Li, L., & Shrestha[**], L. *What and how did it work? A systematic review of the intervention studies of changing perception towards older adults*. Paper presented at the Gerontological Society of America (GSA) Annual Scientific Meeting, Indianapolis, IN, USA. (November 2022).

- Li, L., & **Lee, Y.** *Teach gerontology to social work students: Applying the experiential learning using ethnographic interview*. Paper presented at the Gerontological Society of America (GSA) Annual Scientific Meeting, Indianapolis, IN, USA. (November 2022).

- **Lee, Y.**, & Bierman, A. *Uncovering the positive aspects of caregiving: A profile of caregivers' demographic and care contexts*. Paper presented at the Gerontological Society of America (GSA) Annual Scientific Meeting, Indianapolis, IN, USA. (November 2022).

- Li, L., Wister, A., **Lee, Y.**, & Mitchell, B. *Transition into caregiving among older persons: A study of social participation and social support based on the Canadian Longitudinal Study on Aging*. Paper presented at the Canadian Association of Gerontology (CAG) Annual Scientific and Educational Meeting, Regina, SK, Canada. (October 2022).

Bierman, A., **Lee, Y.**, & Penning, M. *Reconsidering the mental health consequences of the demands of caregiving: Can there also be benefits?* Paper presented at American Sociological Association (ASA) Annual Meeting, Los Angeles, CA, USA. (August 2022).

- Kelly, C., Aubrecht, K., Dansereau, L., FitzGerald, M., **Lee, Y.**, & Williams, A. *Perennial policy issues in directly-funded home care in Canada: Exploring the role of agencies*. Poster accepted at the World Congress of the International Association of Gerontology & Geriatrics (IAGG), Virtual. (June 2022).

- Kelly, C., Dansereau, L., <u>Sebring, J.</u>, Aubrecht, K., FitzGerald, M., Williams, A., **Lee, Y.**,

& Hamilton-Hinch, B. *The use of intersectionality, health equity, and EDI: What's the difference in health research?* Paper presented at Women's and Gender Studies et Recherches Féministes - Congress Annual Conference, Virtual. (May 2022).

- **McCormack GR.** Walkable City Design for Promoting Health and Wellbeing. University of Calgary Retiree Association (March 8, 2023)
- **McCormack GR**. Urban Design and Health: Examples of Research Using Alberta's Tomorrow Project Data. O'Brien Institute for Public Health/Community Health Sciences Seminar Series, University of Calgary (June 24, 2022)
- **Ngo, V. H.** *A pathway to institutional resilience in addressing equity, diversity, inclusion and accessibility.* Presented at the International Academic Forum on Education,

Honolulu, Hawaii. (2023, January).

- **Ngo, V. H**., Srivastava, R., & **Lee, Y.** *By design: An integrated approach to equity, diversity and inclusion in higher education.* Presented at the Hawaii International Conference on Education, Honolulu, Hawaii. (2023, January).
- **Ngo, V. H.** *The use of participatory action research in identity-based practice with vulnerable youth.* Presented at Chung-Ang University, South Korea. (2023, March).
- **Ngo, V. H., Patterson, M., & Lee, Y.** *Community engagement in research.* Presented at the SSHRC Partnership Initiative on Quality Built Environment. (2022, December). • **Sinclair, Brian R**. "Invisibility of Architecture: Opening Eyes, Minds and Hearts in an Ethos of Fragmentation, Separation & Skepticism". Salon Series Session. Spirit of

Place: The Invisibility of Architecture Symposium. Presentations by Brian R. Sinclair and Travis Price. Moderation by Nooshin Esmaeili. Association of Friends of Sufi Arts, Culture and Knowledge. USA, 2023.

- **Sinclair, Brian R.** "Agile Architecture: Adaptability, Mutability + Resilience with Sustainability in the Crosshairs". Paper presentation at the 3rd IAFOR International Conference on Arts and Humanities in Hawaii (IICAH-Hawaii), Honolulu, Hawaii, USA, 2023.

6-C- Upcoming or planned publications:

- **Nahmad Vazquez, Alicia**. Mediated Drawings: SlimeGAN. In Kudless A, Marcus A. Book chapter. (2023). Drawing Codes: Experimental Protocols of Architectural Representation. pp 35-40. Published by Applied Research + Design. ISBN 978-1-95718339-8. Book chapter. In press.
Bhooshan, V., **Nahmad Vazquez, A**., Singer, P., Chen, T., Louth,Henry D., Bhooshan, S. (2022). Spatial Curved Laminated Timber Structures. In Barberio M, Colella M, Figliola A, Battisti A (eds) Architecture and design for industry 4.0: theory and practice. pp 100 - 142. Published by Springer Nature. Book chapter. In press.

- **Nahmad Vazquez, A.** (2023). Diffusion Models: A historical Continuum. In Del Campo M. (ed) Diffusion – A Taxonomy of Posthuman Architecture Design. Pp 50-53. Wigley Book chapter. In Press.
- **Milaney, K**., Bromley, A., Fraser-Celin, V., Bromley, J.*, Chief Moon, M.*, Lucas, K.*, Henderson, R. Addressing Structural Racism for Indigenous Families. Submitted to the International Indigenous Policy Journal
- **Sinclair, Brian R.** "Design Excellence Reset: Shifting Values and Interrogating Value in a Dramatically Different Way". Research and Practice. Annual Conference of the Architectural Research Centers Consortium (ARCC), 2023.

RESEARCH SITE: Université Laval
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 04 / 15

Names of partners:
    Researchers:
    - de Blois, Michel (FAAAD, École de design)
    - White, Jacques (FAAAD, École d'architecture)
    - Ressano Garcia, Pedro (FAAAD, École d'architecture)
    - Blanchet, Pierre (FFGG, Sciences du bois et de la Forêt)
    - Roche, Stéphane (FFGG, Département de Géomatique)

    Students:
    1st cycle: Aurélie Brissac, Myriam couture (Graphic Design)
    2nd cycle: Alex Langevin (Master of Architecture)
    3rd cycle: Dener François, Aya Boussouf (ESAD)
    Postgraduate: Matheus Cabral (FFGG)

    Citizen Groups:
    - Vivre en ville (David Paradis)
    - Conseil de quartier du Vieux Limoilou (Raymond Poirier, Nicolas Jean)
    - Conseil de quartier Maizerets (Martial Van Neste)
    - Votepour.ca (Sébastien St-Onge)

    City and Public Order:
    - City of Quebec, Division de la planification stratégique du territoire (Valérie Drolet, Alexandre Armstrong, Marc-Antoine Viel)

    Professional organizations:
    - Écobâtiment (Léa Méthé, Francis Pronovost)
    - Association des architectes en pratique privée du Québec (AAPPQ) (Anne Carrier, Étienne Taillefer)
    - Ordre des Architectes du Québec (OAQ) (Patrick Littée, Jonathan Bisson)

1- Title of the situated project:

Multiple voices, scales and criteria defining quality in the built environment

2- Summary of the problem and research questions:

This project is part of **the Thematic Cluster #4 program "Processes & policies supporting the reinvention of the built environment".**

Question: In the context of revitalizing the built environment, such as Quebec City's Innovation Zones (InnoviTam), how can we deploy multi-scale design approaches and mixed methodologies to better capture and define spatial and social coherence, sustainability and resilience?

- Context: National capital, Innovitam project
- Building type: Neighborhood complex, mixed-use economic zone

Main themes/concerns: Clarify the concept of "quality of the built environment" through innovation processes, intersecting perspectives and scales of intervention in the context of an innovation zone (actors and agendas). Explore these concepts beyond the economic perspective. Identify processes for capturing quality conditions in architectural, territorial and landscape design. Include social dimensions and clarify innovation objectives for intelligent transport mobility, sustainable health and health technologies, clean urban technologies, connected habitats, innovation clusters. Facilitate and promote proximity between players and stakeholders, city attractiveness, interstitial zones, social landscape and heritage issues, population diversity, spatial and social justice issues, living environments for a diverse population.

- Component 1: reassess project and innovation processes (particularly in the context of built environments), document and inform the issues/criteria/parameters that define multiple notions of quality for innovation zones, mobilize stakeholders towards a shared vision. Explore how stakeholders capture, express and translate perceived and actual quality of the built environment into criteria, at different scales, from different perspectives, along a dynamic timeline.

3- Ethical approval

- Approval Period: August 8, 2022 – August 8, 2023
- Approving Agency Number: 2022-285

We plan to renew the certificate this summer.

4- Summary of research activities involving local partners:

We began our first activities with partners in August 2022, just before the first annual convention in Montreal. Partners have been actively involved in all our activities since:

- Montreal Convention, August 2022. Our partners were solicited and worked with the research team to define the scope and content of their involvement in various Innovitam Zone projects. A 3-part work plan was proposed: (1) collaboration to develop 2 case studies in Quebec City, i.e. 2 eco-neighborhoods. Extensive documentation was made available to the researchers. (2) A schedule was established for the series of public consultations held by the City of Quebec for the development of the La Canardière district (5 consultations and 2 public workshops, in autumn 2022 and winter 2023).

- Case study: the partners gave us access to numerous documents for 2 major case studies in Quebec City. They participated in interviews (semi-directed by A. Langevin) which were

documented and collated. M. Cabral (postdoc) went on to write a substantial report on more than 25 innovation zones.

- Round Table 1, ULaval, October 2022, held at La Centrale, Campus Ulaval.

This RT looked back on the Mtl convention and proposed a detailed synthesis of the initial statements of project stakeholders' concerns (collated in the convention report). Proposed by D. François (Ph.D. student), this synthesis formed the basis of our proposed research questions aimed at: (1) defining the concept of quality; (2) establishing a methodology for capturing these concepts within project processes.

- National Convention (online), December 2022

Following the Round Table, we continued to collect data on the case studies and began preparing the December 2022 convention, as well as the work for the winter 2023 public consultations.

- Innovitam project, La Canardière sector: Public consultations

During the winter of 2023, we attended and documented 6 consultation activities organized by the City of Qc. These activities are described on the City's website, and the documents, activities and consultations are currently being studied and analyzed by our students.

- Co-creation workshops: work on the case studies and public consultations enabled us to refine a first aspect of the methodology. This part of the process enabled us to define the concepts of quality through a mechanism for capturing issues according to the type of stakeholder involved, as well as linking them to the quality principles of the "Aide-mémoire du gouvernement du Québec".

5- Summary of student engagement and names of students by study cycle:

For the 2022-2023 period, we had the opportunity to involve 6 students in the project.

1st cycle: Aurélie Brissac, Myriam Couture
Are responsible for organizing the information collected and produced so that it can be visualized.
They worked actively to produce an information architecture and visualizations of consultation processes, project processes and stakeholder dynamics, as well as producing the material and tools for the Round Table co-creation activity.

2nd cycle: Alex Langevin
Produced 2 case studies on eco-neighborhoods (research and interviews), and above all documented and collated the information and exchanges at the 5 Quebec City consultation workshops for the Innovitam and La Canardière projects.

3rd cycle: Dener François, Aya Boussouf
Involved in documentary research and literature reviews. Responsible for analyzing data collected at round tables, conventions and case studies. They have produced a series of tables, matrices, reading and synthesis sheets: (1) elements constituting barriers to quality; (2)

stakeholders' concerns; (3) main issues raised by these concerns; (3) definitions of quality concepts; (4) constructs on the composite concept of quality.

Postdoc: Matheus Cabral
Conducted exhaustive research on more than 25 innovation zones worldwide and produced a substantial report. This report provides a detailed analysis of the components of these zones: urban planning, architecture, building typology, economic activities, social impacts, objectives and missions of the zones, etc.

6- List of dissemination products related or connected to the partnership project:

The researchers have not yet published any articles concerning the research project. We do, however, have a number of documents in preparation, including reports on the 2 roundtables, the December convention, case study interviews, case studies, project process mapping, etc.

6-A- Publications directly related to the partnership project:

6-B- Publications connected to the partnership project:

6-C- Upcoming or planned publications:

Cabral, Matheus, (2023) Étude de cas des Zones d'innovation, rapport détaillé et de synthèse (en rédaction)

Cabral, Matheus, (2023) Revue de littérature sur les concepts de qualité dans l'environnement bâti

Langevin, A. (2023) Études de cas d'Éco quartiers de Québec (en rédaction)

François, D., de Blois, M. (2023) Vers une compréhension harmonisée du concept composite « Qualité » dans les interventions interinstitutionnelles d'aménagement territorial et de l'environnement bâti : Synthèse de connaissance.

de Blois, M., Langevin, A., François, D., (2023) Cartographie des processus de consultation de la Ville de Québec, le cas La Canardière (en rédaction)

de Blois, M., White, J., Garcia, P., François, D., Langevin, A. (2024) Principes directeurs du concept de qualité de l'environnement bâti : aperçu des concepts composites

RESEARCH SITE: University of Manitoba
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / April / 6

Names of partners:
>   *Researchers***:**
>   -Mallory-Hill, Shauna
>   -Garcia Holguera, Mercedes
>   -Bailey, Shawn
>   -Thompson, Shirley
>   -McAdam, Sylvia
>
>   *Citizen Groups:*
>   - **One House Many Nations (**Alex Wilson, Sadie Phoenix Lavoie, Jenna McAdam, Guardian Bear, Walter Kahpeechoose, Jasmine McAdam, Rose Whitefish, Taylor Fraser, Jasmine McAdam)
>   -**Mino Bimaadiziwin** (Lucas Dick, Silas Ryle, Page Mayham, Collin Flett, Harold Wastacoot, Glen Sinclari, Fancine Spence)
>
>   *City and Public Order:*
>   - In our project, the First Nations (**Big River First Nation**, **Opaskwayak Cree Nation**, **York Factory First Nation**) are represented within our citizen groups.
>
>   *Professional organizations:*
>   - **Manitoba Association of Architects** (**John van Leeuwen**, Lawrence Bird, Celina Rios-Nadeau, Rachelle Lemieux, Colin Neufeld, Pablo Batista, Paula Rodrigues Affonso Alves, Jessica Clarisse de Oliveira, Luxmy Ragunathan, Michael Cox, Liane Veness, David Lavender, Teresa Lyons, Dimos Polyzois, Lancelot Coar, Mimi Locher)

1- Title of the situated project:

Community-Led Pathways to Affordable & Sustainable First Nation Housing

2- Summary of the problem and research questions:

In Northern Manitoba and Saskatchewan, First Nations (FN) people are surrounded by abundant natural resources and deeply understand their land. However, they often live in economic poverty without healthy housing, potable water, adequate sanitation, or roads.[1] Recent indigenous community-led land-based approaches seek to identify needs and

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[1] 1 Thompson S., Wiebe, J., Gulrukh, A. & Ashram, A. (2012). Analyzing food-related economic development in Indigenous communities in Northern Manitoba for impacts on food sovereignty, food security and sustainable livelihoods. *Canadian Journal of Nonprofit and Social Economy Research, 3*(2), 43-66.

opportunities and build capacity to provide economically and environmentally sustainable solutions to address the housing shortage on reserves. Our team strives to identify pathways to quality housing with and for First Nation people through roundtable events, webinars, and case studies. The project has two main streams of investigation:

Stream 1: Roadmap to Sustainable Housing Design (Energy independence)

1. What are the indigenous communities' perspectives, world views, beliefs, and values determining quality?
2. How can we build effective communication skills, prioritize building relationships and indigenous ways of knowing in collaborative design, materials innovation, and performance evaluation?
3. What barriers do First Nation Communities face in designing and building affordable and sustainable housing?
4. What can we document and learn from existing case-studies that can feed forward into present and future collaborative design and building processes in FN communities?

Stream 2: Roadmap to Material Independence

1. What are indigenous communities' perceptions about material quality, and how do biomaterials fit in these perceptions?
2. What socio-cultural barriers prevent the development and implementation of biomaterials in remote communities?
3. How can we redefine material quality standards because of indigenous co-creation processes? What extended ramifications emerge from these processes? How do these affect current design methodologies?
4. What are the implications of redefining materials quality under the lens of indigenous knowledge in the context of the housing crisis? How can biomaterials' local production help support resource independence for remote communities?

3- Ethical approval

- Approval Period: 16 Feb 2023 to 15 Feb 2024
- Approving Agency Number: HE2022-0173

4- Summary of research activities involving local partners:

23-24 February 2023 the team held a "Feast & Fire" event. Day 1 was a roundtable event included keynote speakers (Dr. Alex Wilson – OHMN/U of Saskatchewan, Dr. David Fortin – U of Waterloo/Fortin Architects, Sylvia McAdam – OHMN/U of Waterloo) and breakout sessions, along with a mid-day feast. The event included representatives of our indigenous citizen/community, professional, and academic partners in discussing rethinking the definition of quality and exploring the systemic barriers to quality in First Nations housing. Day 2 of the event focused on our Citizen/Community Partner engagement. It included a workshop including indigenous beading, and tours of the Centre for Architectural Structures and Technology (CAST), bio-materials laboratory at the University of Manitoba along with the Center for Applied Research in Sustainable Infrastructure (CARSI) and Skills Trade and Technology Center (STTC) at Red River Polytechnic Campus.

Figure 1 – Roundtable #1 Breakout Session with Partner Groups

5- Summary of student engagement and names of students by study cycle:

<u>Postgraduate</u>:

Polyzois, Panayiotis (Panos), (August 2022 – *present*) Senior Research Assistant., Panos attended Montreal National Convention (Aug. 2022) where he participated in the note-taking and reporting for the break out group sessions. He also participated in the on-line National Convention (Dec. 2022), CIRS, and serves on the National Student Committee. For the MB project team, he has assisted in assembling initial case studies, preparing our Ethics Protocol, and coordinating and delivering our first roundtable event. He oversees the day-to-day activities of our project, website updates, and coordination of team meetings for our project.

Rauf, Kanza (June – August 2022) Assisted with the initial preparation of the U of MB's situated project research and ethics protocol and reports leading into the first National Convention.

<u>Graduate</u>:

Fenn, Danielle (1 February 2022 – *present*) and assisted in delivering our first roundtable events. In addition to preparing the poster and wayfinding materials, Danielle helped with event planning, registration desk, catering coordination and note-taking for break-out sessions.

Evans, Matthew (August-Nov 2022) assisted with the early case study research.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Mallory-Hill, Shauna, Bailey, Shawn, Sylvia McAdam, Polyzois, Panayiotis, Fenn, Danielle, "Rethinking Quality in Design" (Report of Roundtable #1)

6-B- Publications connected to the partnership project:

- TBD

6-C- Upcoming or planned publications:

- TBD

RESEARCH SITE: Athabasca University
ANNUAL REPORT ON RESEARCH AND DISSEMINATION ACTIVITIES
YEAR 1: 2022-2023
Date of report: 2023 / 4 / 12

Names of partners:
    ***Researchers*:**
    - Auger, Josie
    - Baker, Janelle
    - Butler, Trevor
    - Hansen, Lorelei
    - Kumar, Vive
    - MacLeod, Douglas
    - Martin, Gina
    - Madonna, Veronica
    - Tsang, Henry
    - Wiggins, Tobias
    Total: 9

    City and Public Order:
    - Town of Athabasca (Robert Balay, Brian Hall, Sara Graling, John Booth, Carole Alberts, Justin Guay, Camille Wallach, Rick Baksza, Erin Clark, Darius Gross, Dr. Josie Auger)
    - Samson Cree Nation (Jerry Saddleback, Shawn Yellowbird, Terri Potts, Glenda Swampy, Carmen Yellowbird, Halena Montour, Priscilla Swampy, Joyce Rain, Jaime Nepoose, Harper Potts, Dean Dion, Ashley Saddleback)
    - Town of Sundre (Shelbi Duncan, Sarah Kennedy, Laura Skorodenski, Sandy Easterbrook, Dr. Janelle Baker, Jon Allan, Benazir Thaha Valencia, Gerald Ingeveld, Joyce Wicks)
    - Town of Ft. Macleod (Brent Feyter, Anthony Burdett, Liisa Gillingham, Meranda Day Chief, Adrian Pedro, Amanda Lawrence, Elaine Sorenson, Robert Rippin, John Guliker, Ricky Sharma, Darlene Hofer, Kathy DeGinnus, Angie O'Connor)
    Total: 45

    Professional organizations:
    - Black Architects and Interior Designers Association (BAIDA), (Shane Laptiste, Sam Oboh, Micheal Otchie, Farida Abu-Bakare)
    - Building Equity in Architecture Calgary, (Lindsay Andreas)
    - Building Equity in Architecture Toronto, (Maya Desai)
    - Alberta Association of Architects (Keir Stuhlmiller)
    Total: 7

1- Title of the situated project:

Regenerative Communities

2- Summary of the problem and research questions:

This Project Theme would explore the re-invention of Canada's Built Environment through the environmental, economic and social regeneration of rural and regional communities. As the International Living Future Institute has suggested, we will help create communities that are "Socially just, culturally rich and ecologically restorative," but we would add that these communities should also be healthy (for the body and mind) and economically fair and sustainable. Over the course of 5 years, this research site will embark on a situated project to engage over 5000 students and community stakeholders in a series of activities to re-invent the regional and rural built environment.

The key research questions are designed to address the key tenets of regeneration as expressed above:

1. Considering the need for affordable housing in First Nations Communities in Northern Canada, can inclusive design and culturally relevant innovation contribute to empowering communities?
2. Can community-based infrastructure allow for better social integration in rural communities?
3. What community-based infrastructure and services are necessary to support a variety of gender, race, culture and economic perspectives?

In addition we would like to address the related questions of :

1. How can all types of buildings be retrofitted to reduce energy consumption and costs, and create healthier places to live and work?
2. What forms of energy transition in rural areas will enhance ecological sustainability, social well-being and environmental justice?
3. How do we learn from Indigenous and traditional knowledge of the land?
4. How can communities develop new revenue streams that build on their existing assets and create circular, local economies?

3- Ethical approval

- Approval Period: June 21, 2023 – June 20, 2024
- Approving Agency Number: File No: 24847

4- Summary of research activities involving local partners:

Our team has brought together a variety of disciplines, projects and communities to explore the idea of regeneration. In particular, we are using design charettes as a means of examining quality in the built environment of Canada's rural areas.

These charettes involve a 4 part process of Preparation, Charette, Outcomes and Dissemination.

Preparation consists of:
- Project Overview
- Needs Assessment
- Assessment Review
- Stakeholders Identification

- Partnership Roundtables

The Charette itself consists of:
- Information gathering by design team
- Community input
- Design Interaction by design team and community stakeholders

During this period we conducted charettes with:

Community	Date	Community Participants	Research Team Participants (in Person)	Research Team Participants (Virtual)
Athabasca	16-Jun	11	8	7
Ft. Macleod	20-Jun	13	4	13
Samson Cree Nation	13-Sep	9	4	12
Sundre	14-Sep	9	5	12
Sundre Campus of Care	23-Feb	7	5	1
TOTALS		**49**	**26**	**45**

Total All Participants: 120

Outcomes includes:
- Analysis of design charette
- Final design ideas and recommendations
- Final report presented to community

Dissemination includes:

- Publications
- Podcasts
- Websites
- Online Lectures and Workshops (stored on YouTube)
- Learning Modules (with Case Studies)
- Open Educational Resources

5- Summary of student engagement and names of students by study cycle:

Across these projects a wide variety of students have been employed as Research Assistants. Their roles have included:

- Charette Organization and Participation
- Learning Module Creation
- Case Study Creation

- Conference and Workshop Recorders, Organizers and Participants
- Learning Management Planning

Undergraduate**:** Anastasia Blomgren, Ian Chitwood, Trish Godoy-Contois, Kaiden Reding, Cara Shan, Twylla Soossy, Laura Vera-Augustine, Jessica Williams

Postgraduate: Dr. Meg Barry

Total: 9

Throughout this period, these Research Assistants have been invaluable in all aspects of the project.

6- List of dissemination products related or connected to the partnership project:

6-A- Publications directly related to the partnership project:

Dissemination Products created in conjunction with "kikapekiskwewin."

The title of this 8 part podcast series is "kikapekiskwewin," a Cree word referring to a future conversation. At the heart of each podcast, Indigenous cultural values in the context of post-secondary research ethics are discussed by Indigenous and non-Indigenous peoples who presented at the event or were members of the organizing team. These podcasts are a contribution to the body of work on Indigenous research methodologies. The kikapekiskwewin podcasts on cultural values and research ethics are numerically ordered. Please click the link below.
https://anchor.fm/kikapekiskwewin

Dissemination Products created in conjunction with "Enhancing Rural and Regional Real Estate through Community Learning (Community Learning)."

Reports

Community Learning Team, "Town of Athabasca Needs Assessment," Published Digitally, March 2022.

Community Learning Team, "Samson Cree Nation Needs Assessment," Published Digitally, July 2022.

Community Learning Team, "Town of Sundre Needs Assessment," Published Digitally, August 2022.

Community Learning Team, "Sundre Campus of Care Needs Assessment," Published Digitally, January 2023.

Community Learning Team, "Town of Athabasca Post Charette Report," Published Digitally, September 2022.

Community Learning Team, "Town of Fort Macleod Post Charette Report," Published Digitally, October 2022.

Community Learning Team, "Samson Cree Nation Post Charette Report," Published Digitally, November 2022.

Community Learning Team, "Town of Sundre Post Charette Report," Published Digitally, November 2022.

Community Learning Team, "Sundre Campus of Care Post Charette Report," Published Digitally, March 2023.

Learning Modules

Inanloo Dailoo, Shabnam and Berry, Meg, "Heritage Resource Management," Summer 2023.

Martin, Gina, "Community Health," Summer 2023.

Butler, Trevor and Blomgren, Anna, "Regenerative Design & Energy Efficiency," Summer 2023.

Alzyoud, Hussein; Ordonez Ponce, Eduardo and Chitwood Ian, "Economic Diversification," Summer 2023.

Tsang Henry Vero-Augustine Laura, "Equity, Diversity and Inclusion," Summer 2023.

Auger Josie, Carter, Lisa, Godoy-Contois, Trish, "Learning from the Land," Summer 2023.

Dissemination Products created in conjunction with "The J-Series (Justice Webinar and Speaker Series)."

Bird, Simon and Ross, Charlotte, "Revisiting & Reconnecting: Indigenous language & culture," May 25, 2022.

Alexis, Shotwell; Baszile, Denise Taliaferro, and Patel, Shaista, "Slowing Research: Reflecting on Theories of Change," November 8, 2022.

Tallbear, Kim and Sheehi, Lara, "Land, Love, & Willful Refusals: Disrupting Settler Colonization from Turtle Island to Palestine," January 10, 2023

"Troubling Access: Ableism & New Movements in Philosophy of Disability,"

March 30, 2023

Dissemination Products created in conjunction with "Communities in Transition

Bhatti, Asad; Madonna, Veronica and Crotty, Stephen "Housing Development in Rural Communities," Rural Resiliency Speakers Series, Sep 7, 2022, (215 participants, 97 views).

Gibson, Ryan "Navigating Transitions: The Future of Rural Communities," Rural Communities in Transition Workshop, Mar 10, 2023, (200 participants, 35 views).

Houle, Derrick and Lithgow, Michael "Rural Resiliency and the Digital Divide," Rural Resiliency Speakers Series, Sep 28, 2022, (111 participants, 37 views).

Ohler, Dan "Strengthening Communities using the Co-operative Model," October 25, 2022, (51 participants, 59 views).

Phillips, Rhonda; Wetchie, Vickie and Pettit, Don "Solar Stories from Rural Western Canada," Mar 31, 2023, (47 participants, 8 views).

Roche, Jayde; Bucklaschuk, Jill and Fuller, Deena "Rural Immigration and Building Welcoming Communities," Rural Resiliency Speakers Series, Sep 21, 2022, (128 participants, 32 views).

Stuebing, Sarah; Price, Sandie; Hewitt, Elliot; Campbell, Lori and Scott, Hannah "Rural Funding," Nov 17, 2022, (139 participants, 104 views).

Turowski, Jessica; Martin, Gina and McGuire, Mary "Rural Wellbeing and Health," Rural Resiliency Speakers Series, Sep 14, 2022, (170 participants, 37 views).

Dissemination Products created in conjunction with "The Global Studio."

Lectures available through the Global Studio YouTube Channel
https://www.youtube.com/channel/UCC-Ry650i197mGh0u_kvW3A

de Monchaux, Nicholas "Local Code - 3,659 Proposals about Data, Design and the Nature of Cities," 25 January 2023, (40 views).

Mkhabela, Solam and Bawa, Hiten, "Theorizing a Collaborative Workshop around a graphic novel: How Johannesburg, South Africa became what it was," Feb 23, 2023, (12 views).

Mora Alvarado, Enrique "The use of bamboo as a resource of value for architecture in Ecuador," August 31, 2022, (56 views).

Nkwanyana, Thabang "Imagining a way forward: Minecraft as a community design tool?" 19 December 19, 2022, (5 views).

Tsang, Henry "The Politics of Placemaking in Chinatown," RAIC Foundation Bursary Award at the RAIC Conference, Jun 6, 2022, (152 views).

6-B- Publications connected to the partnership project:

Other Publications Connected to Partnership Project:

Butler, T., "Investigation of the Thermal Energy Performance of Earth to Air Heat Exchanger systems in British Columbia, Canada", 2023.

Butler, T., MacLeod, D., Madonna, V., & Tsang, H. "A New Integrated Approach of the Regenerative Design Process for Academia and Practice," *RAIC-CCUSA Academic Summit* (2022). [Conference Proceedings, Submitted for Publication].

Butler, T., MacLeod, D., Madonna, V., & Tsang, H., "Architects Going Virtual: New Concepts of the Architects' Workplace & Methodologies in a Post-COVID-19 World," *RAIC-CCUSA Academic Summit Conference Proceedings,* (2021), 6-15. ISBN 978-0-919424-89-0.

Butler, T., MacLeod, D., Madonna, V., & Tsang, H. "Carbon Neutral Building in Canada – A Holistic Case Study," [Manuscript submitted for publication], (2021).

Madonna, V., "Strengthening Cultural Sustainability in Canada: The State of Equity, Diversity, and Inclusivity in Design Education," [Manuscript submitted for publication], (2023).

Madonna, V. et al., "Canadian Guide to Mid-Rise Wood Construction," Canadian Wood Council - WoodWORKS!, (Canada: 2022).

Madonna, V., & Street, S., "The Challenges of Non-combustible Exit Enclosures and Wood Build Buildings," Wood Design & Building Magazine (Ottawa: Volume 21, Issue 91), 39-44.

Diane Simon, Nicole Burns, Nikki Hunter-Porter, Tina Lanceleve, Noé Préfontaine, Jaiden Herkimer, Samantha Roan, Josie Auger, Anita Benoit, Melody Morton Ninomiya, Lisa Bourque Bearskin, "Embodied in Indigenous Research: How Indigeneity, Positionality, and Relationality Contribute to Research Approaches and Understanding," Healthy Populations Journal (Halifax: Vol. 3, No. 1, 2023), pp. 30-43.

Creative Works:

Madonna, V., "The Benefits of Mass Timber, Low Carbon Schools Feasibility Study," Creative Works, Studio VMA Inc. (2023).

Madonna, V., "The Benefits of Mass Timber Mining Camps in Northern Ontario," Creative Works, Studio VMA Inc. (2023).

Tsang, Henry, "The Vernacular Architecture of Canadian Towns: People and Habitat in Rural and Regional Communities," Curation of a Virtual Exhibition of Digitally Photographed Artworks, (Athabasca/Remote: 2022), exhibited on *Athabasca University Library and Scholarly Resources* website. https://libguides.athabascau.ca/guest-curator-series-henry-tsang

Tsang, Henry, Vero-Augustine, Laura, "Enhancing EDI in Rural Communities," Poster, (Ottawa/Remote: 2022), exhibited at the Canadian Architecture Forum on Education Digital Gallery.

https://www.casa-acea.org/2022-cafe

Presentations and Roundtable:

Madonna, V & Butler, T., "A New Integrated Approach of the Regenerative Design Process for Academia and Practice*," RAIC CCUSA Academic Conference*.

Madonna, V., "Regenerative Cities: Towards a Lower Carbon City and Society," [Roundtable Presentation and Discussion] *The Building Show: International Architectural Roundtable,* (2022, Nov 30).

Madonna, V. & Huether, R., "Unlocking the Potential: Adaptive Reuse of Existing Building Towards a Low Carbon and Equitable Future," [Conference Presentation]. *Ontario Building Official Association AMTS 2022.* (2022, Oct 22).

Madonna, V., "A Pathway Towards Sustainable Architecture and Mass Timber Design" [Symposium Presentation], *Prince's Trust Canada*, Virtual, Canada. (2022, May 26).

Madonna, V. & Street, S., "Growing Opportunities for Midrise Wood Construction," [Conference Presentation]. Ontario Association of Architects Annual Conference, Toronto, Canada. (2022, May 12).

Madonna, V. & Street, S., "Inspiring Climate Action: Getting Stakeholder Buy-in for Climate Stability**"** [Conference Presentation]. *Ontario Association of Architects Annual Conference*, Toronto, Canada. (2022, May 11).

Madonna, V., "Carbon Neutral Buildings in Canada – A Holistic Case Study*,"* [Conference Presentation]. Woodrise, Virtual, Japan. (2022, May 5).

Madonna, V., "Mass Timber: A Journey of a Project," [Symposium Presentation], Ontario General Contracting Association Symposium, Collingwood, Canada. (2022, Apr 9).

Madonna, V. & Street, S., "Reimaging Possibilities in Wood Construction: The Canadian Guide to Midrise Wood Construction," [Webinar Presentation]. Royal Architectural Institute of Canada, Virtual, Canada. (2022, Mar 10).

6-C- Upcoming or planned publications:

Josie Auger, Nisha Nath, Carolyn Greene, "Wisdom Seeking Together: Circling around Research Ethics," International Indigenous Policy Journal, (Toronto).

Butler, T., "Design of EAHE systems, monitoring methodology and impacts".15th International Conference on Sustainability in Energy and Buildings, 18-20 September 2023, Bari, Italy.

Madonna, V**., "**Strengthening Cultural Sustainability in Canada: The State of Equity, Diversity, and Inclusivity in Design Education," (2023).

Salahub, Jennifer "Just how Crafty is Craft?" Alberta Women's Institute Stitch & Sip, April 14, 2023 (47 participants, not yet posted).

Tsang, Henry, Patterson, Matt, "The Politics of Placemaking in Chinatown," Conference Presentation, *Royal Architectural Institute of Canada 2023 Conference on Architecture* (Calgary: May 5, 2023).

Tsang, Henry, "Equity, Diversity and Inclusion in Architecture: Designing for Underserved Communities," *Conference Presentation, Construction Specifications Canada 2023 Conference* (Calgary: May 26, 2023).

Tsang, Henry, "Accessible Design: An Architect's Blind Spot", Book Chapter, *What is Accessible Design* Book, (United Kingdom: Buildner and ArchHive Books, 2023).

Summary of Dissemination Products

- Creative Works - 4
- Charettes/Workshops – 5 (120 participants)
- Inperson Lectures - 8
- Online Lectures – 14 (1061 participants; 674 views)
- Podcasts - 8
- Reports - 10
- Publications – 18

Total – 67 dissemination products; 1855 participants and/or views