



CANADIAN ARCHITECTURAL
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2022 CACB CONFERENCE

ISSUE PAPERS



Purpose of the Conference Papers

The 2022 Conference Committee invited students, educators, interns and practitioners to identify issues that were felt to be of importance for discussion at the Conference. The intent of the issue papers was twofold: first, to engage the profession's continuum – from students to practitioners – in a dialogue influencing the future of architecture. A second more practical reason was to provide the Conference Committee with some guidance with respect to the Conference structure and topics.

The papers revealed that several conference-worthy topics, including: social justice; wellness; climate change; sustainable development. In addition, several papers offer practical suggestions with respect to improving the architecture continuum, and several recommendations are offered on changes to conditions and procedures.

Thirty-four issue papers were received, some through a survey response, others accompanied by a standard issue identification form and several lengthier written responses. These are all included in the following pages and they are listed in the order in which they were received. The Conference Committee did their best to review all papers and align them to the conference themes - we recognize that this alignment may not be perfect. We ask for your indulgence.

Issue Papers Table of Contents

Paper Number	Paper Topic / Issue	Theme 1 The Future of Architecture	Theme 2 Social Justice & Wellness	Theme 3 Climate Action & Sustainable Development	Theme 4 The Architecture Continuum	Theme 5 Changes to the Conditions & Procedures
1	Structure of Guiding Students/Interns				✓	
2	Going beyond the build: Engaging conflict through design-build education					
3	Systemic Change for the Climate Crisis			✓		
4	VR Technologies in Canadian Architectural Pedagogy					
5	Student Choice, University Electives Redefining Architecture				✓	
6	Canadian Architecture Forums on Education (CAFÉ) - outcomes. Student voices, student visions	✓	✓	✓	✓	✓
7	Architects in Canada: What do they do? What do we expect of them?	✓				
8	Lack of mandatory internship during studies				✓	
9	The role of architecture in meeting the UN Sustainable Development Goals			✓		
10	Climate Action Leadership: accelerating progress to equitable decarbonization and defining competency pathways in architecture			✓		
11	Understanding about accessibility and inclusion		✓			
12	Attract the interest of the class of young students in private professional design schools versus universities		✓			
13	Cooperative education must be reassessed				✓	
14	New approaches to the Architecture Learning Continuum				✓	
15	Assessing the efficacy of exposure to the practice and profession of architecture during architecture school				✓	
16	Adopt Life Cycle Assessment into Canadian Curriculum			✓		
17	The Future of Architecture Practice			✓		
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19	Is architectural pedagogy mobilizing towards climate action?			✓		
20	RAIC Climate Action Engagement and Enablement Plan			✓		
21	Transdisciplinarity: Challenges and opportunities incorporating disciplines' tools and skills in the design curriculum				✓	
22	Community Volunteering in Intern Experience Hours?				✓	
23	More Architecture Schools? Why / why not?	✓				
24	Transition from Architectural Student to Intern Architect				✓	
25	Architect Mentors Within the Academic Environment				✓	
26	ClimateCurriculum.ca Survey			✓		
27	Towards Diversity, Equity and Inclusion		✓			
28	Impacts of Covid-19 on Architecture Student Wellness		✓			
29	Managerial Strategies Imperative from Academia to Practice				✓	
30	Diversity & Inclusion Mandates in Architectural Curriculum & Accreditation		✓			
31	Burnout: In architectural education and the profession		✓			
32	Mental health in university students and their desire to stay connected		✓			
33	Avenues for discussion for the Conference - OAQ	✓			✓	✓
34	Getting on the path to licensure				✓	✓



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ISSUE PAPER 1

Structure of Guiding Students/Interns

Submitted by

Julia Weir, Province of Nova Scotia

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ISSUE IDENTIFICATION FORM

Name:
 Email:

 Title:
 Organization:

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Name of Issue <i>In 5 or 6 words, "label" the issue</i>	Structure of Guiding Students/Interns
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	The rigor and structure that exist for guiding a student/intern through the process of accreditation and licensing is inconsistent and often feels incomplete.
Context <i>Provide details of the background that give rise to this issue</i>	Students/interns often feel like they are navigating through the process with little support. The CERB submittal process is inconsistent, the ExAC exam is not well supported (for a licensing exam, the guides/info available is not equivalent to other licensing bodies). The system in place isn't consistent across the country.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference</i>	The lack of support leads to students/interns feeling disdain towards the licensing process. This may lead to less people seeking licensure. The ExAC does not properly list sources to study. The three sources on the webpage would not fulfill all that is needed to know for the exam. The exam questions are poorly written and after studying for months (approx. 14 hours/wk), you shouldn't come out of the exam not having any real sense how you did.



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ISSUE PAPER 2

Engaging Conflict Through Design-Build Education

Submitted by

**Bruce Wrightsman, McEwen School of
Architecture**

CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name: Bruce Wrightsman
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Email:
Organization: McEwen School of Architecture

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Name of Issue <i>In 5 or 6 words, "label" the issue</i>	Engaging conflict through design-build education.
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	In design-build education it is the novelty of the physical, full-scale 'build' that is celebrated, overshadowing the more banal minutia associated projects. I state that the same bias that focuses on the initial act of construction and the end project result obscures critical evaluation of the outcomes.
Context <i>Provide details of the background that give rise to this issue</i>	A review of the current published literature on design-build education reveals abundant images of students doing construction, along with photos of the often beautiful final results. The design-build process, however, often conceals the inescapable realities that influence, and perhaps define, all architectural practice for the participating students. External forces, such as involvement with community and financial stakeholders, university officials and lawyers, as well as municipal governments, help shape the successful outcome of a project. These conflicting forces are paramount in architectural practice, yet traditionally they are left out of the learning process for students working on community-based projects.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference</i>	<p>Engaging conflict defines the profession of architecture. This requires the process of design and construction to rely on constant adjustments made by the demands of clients, codes, budgets, etc. to address the landscape of contingency.</p> <p>How can the immersive reality of design-build curriculum be expanded to include consideration of the many external forces that these future practitioners will confront?</p>



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ISSUE PAPER 3

Systemic Change for the Climate Crisis

Submitted by

**Nicole Rak & Devin Arndt, University of
Waterloo Sustainability Collective, 2020**



CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name: Nicole Rak / Devin Arndt
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Organization: University of Waterloo Sustainability
Collective, 2020

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB 2020 Conference in October 2020. This form can be a standalone document or used as a cover page for an additional companion paper.

<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Systemic Change for the Climate Crisis</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>As architects we are implicit in the current Climate Crisis. With the building industry accounting for approximately 40% of annual greenhouse gas emissions it is impossible to divorce the future of our profession from the fate of our planet. Unfortunately, for many aspiring architects the scope of the climate crisis often feels beyond the scope of architectural education. Young architects entering the building industry are both unprepared and uninspired to take climate action.</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>The IPCC report released in 2018 outlines that in order to limit warming to 1.5°C it is critical that we reduce CO2 emissions to zero by 2050. This is an incredibly short timeline which requires immediate action and drastic change. While some guidelines have begun to be put in place change is not happening nearly fast enough to meet these goals. What is required of the Climate Crisis, both in the building industry and more broadly, is drastic systemic and cultural change. How can we reconsider our educational systems in this context? We have attached a set of guiding principles which are being developed by our collective in order to begin developing an answer to this question.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference</i></p>	<p>It is critical that architectural education adapt to the current context of crisis. Students must feel equipped to enter a changing profession armed with both the desire to take meaningful action and the skills necessary to implement such action in both their personal, academic, and professional lives.</p>

GUIDING PRINCIPLES

1. We advocate that the existential threat of a changing climate must inform our personal, educational, and professional practices. We aspire to foster a conscientiousness, empathy, and active responsibility for the climate crisis, which can lead to productive conversations and actions both in our school and beyond.

CLIMATE JUSTICE

2. We acknowledge that environmental rights and human rights are inextricably linked. Our profession must emphasize climate justice with the same value we equate to other issues of social inequality in design.
3. We recognize the need to respect and promote indigenous land and resource rights, and maintain that architectural institutions must address the intrinsic relationship between colonial narratives and the climate crisis.

ENCOURAGE INNOVATION IN DESIGN

4. We advocate for innovative, principle based thinking which goes beyond prescriptive approaches to environmental design.
5. We recognize architecture's intrinsic relation to material consciousness. We must encourage and celebrate more thoughtful approaches to material use at all levels, both in design processes and construction.

DEVELOPING PATHS TO CRITICAL PRACTICE

6. We aspire to bridge the gap between architectural education and practice, empowering the development of alternative paths towards environmental design.
7. We acknowledge that architecture and architects are directly complicit in the rapid degradation of the environment. Architects must take responsibility in advocating for systemic change, beginning with design systems.
8. We reject architectural greenwashing. We must remain critical of leveraging the climate crisis in the pursuit of profit or publicity.

CONTINUED LEARNING AND GROWTH

9. We celebrate, support, and establish community initiatives, curricular objectives, and architectural practices that respond to the climate emergency.
10. We reflect on our own inadequacy, ignorance, and hypocrisy in navigating the climate emergency, remaining open to continued learning, discussion, and dissemination of emerging information.



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ISSUE PAPER 4

VR Technologies in Canadian Architectural Pedagogy

Submitted by

Vincent Hui & Tatiana Estrina, Toronto
Metropolitan University (Ryerson)

CACB Conference Issue Paper: VR technologies in Canadian Architectural Pedagogy

Vincent Hui (Ryerson University) and Tatiana Estrina (Ryerson University)

Although traditionally a gaming platform, Virtual Reality (VR) is quickly becoming adopted within many fields, including architecture for both its professional and pedagogical uses. Two potential paradigms of the implementation of the technology within the architectural education: a) for the increased accessibility to pre-existing architectural conditions and b) for a greater understanding of new architectural conditions. Ryerson University's Architectural Science program has begun to implement VR technologies throughout the undergraduate education to great success in both paradigms. Within the current global condition of distance education becoming not only available, but encouraged, VR becomes a crucial tool in architectural pedagogy. (Hui, Estrina, Lee, Kinuthia, & Zhou, 2020)

Increasing accessibility to VR allows for the use of the technologies to be deployed on a mass-scale within institutions. When VR products were first released on the commercial market, the cost of the headsets, as well as the powerful processing requirements, made the technology inaccessible to many. The Oculus Rift and HTC Vive, the most commonly used headsets for gaming, while powerful, remain unaffordable. Over the course of the past decade, several more cost-effective solutions became available. Google Cardboard, a headset which consists of a pair of lenses and a slot for a smartphone, makes use of the wildly available devices to allow for viewing of 360 videos and images. Most recently, the Oculus Quest devices were released, which not only provide similar capabilities to other headsets at a fraction of the price, but also act as standalone devices, eliminating computing requirements.



Figure 1 Ryerson's students using VR.

In light of the increasing number of university closures and transitioning to online learning, VR provides a unique link to conventional architectural education. Traditionally, both the understanding of architecture and its pedagogy involved very physical experiences, ranging from visits to architectural sites to reviews of student work. Within the distance learning model, architectural students are unable to have face-to-face interactions with neither their instructors nor any architectural artefacts. This not only affects the student's ability to succinctly communicate their ideas, but also creates a barrier to understanding the content discussed. Yet through the inclusion of VR in the curriculum, students are able use virtual environments to engage with their studies.

In place of physical transportation to various destinations, interactive virtual field trips (iVFTs) create a much more affordable, rapid, and viable alternative. Such trips are generated using consumer grade 360 cameras and are filmed at various sites throughout the world and are publicly available. iVFTs provide students with the ability to tour sites otherwise inaccessible to them, and engage with the context on a higher level than through imagery or two-dimensional drawings. At Ryerson University's Department of Architectural Science, students are annually given the opportunity to travel to various destinations for a Kultour, a weeklong seminar abroad. Throughout their travels, they are encouraged to document their journey through various media, including 360 images and videos using VR cameras. Upon their return, students are able to present their experiences to others who were unable to attend. The VR material gathered, combined with the auidial renditions of the travelers, such students are then able to have a greater understanding of sites. (Hui, Estrina, Lee, Kinuthia, & Zhou, 2020)



Figure 2 VR materials from the most recent Kultour trip to San Fransisco

Additionally, to provide experiences of existing architectural sites, VR may also be used to simulate or recreate lost architectural artefacts. Following the 2019 fire of Notre Dame, virtual reconstructions found in games such as Ubisoft's *Assassin's Creed* proved to be invaluable resources for the reconstruction efforts. In a similar vein, Ryerson's Department of Architectural Science joined Professor William Michael Carter along with video game design and production students from other post-secondary institutions including George Brown College and Sheridan College to collaborate on the *Archeology Alive* project – a multisensory virtual reality recreation of a traditional Huron-Wendat longhouse. The installation, displayed at the Whitchurch-Stouffville Museum, provides an opportunity for the community to gain a greater understanding of the architectural traditions of the Canadian indigenous peoples. (Hui, Estrina, Sarmiento, & Lee, 2019)



Figure 3 Photographs from the grand opening of the Archeology Alive exhibition

Within the AEC industry, VR is presently most commonly used for immersive hyper-realistic visualization of unbuilt spaces, which serves as a large paradigm within the architectural education as well. Using several simple and readily available software, students are easily able to transfer their 3D models into a VR context. At Ryerson University, students are encouraged to engage with their studio work in VR throughout their design process, which provides a crucial facet to their understanding of spaces they design. The experience of being placed within their own designs, allows students to gain an understanding of scale, materiality and most importantly, constructability and the three-dimensional aspects of space. First year students are able to see assemblies and details at a 1:1 scale, giving them the ability to better visualize how such design decisions are able to influence their designs. Furthermore, VR environments provide students with the ability to communicate their ideas to others much more effectively. Many softwares allow for multi-user inhabitation of virtual spaces, providing a vessel for examination and discussion between the students and faculty. In such a way, virtual critiques become a possibility, with the VR content fueling the discussion rather than traditional drawings or sketches.

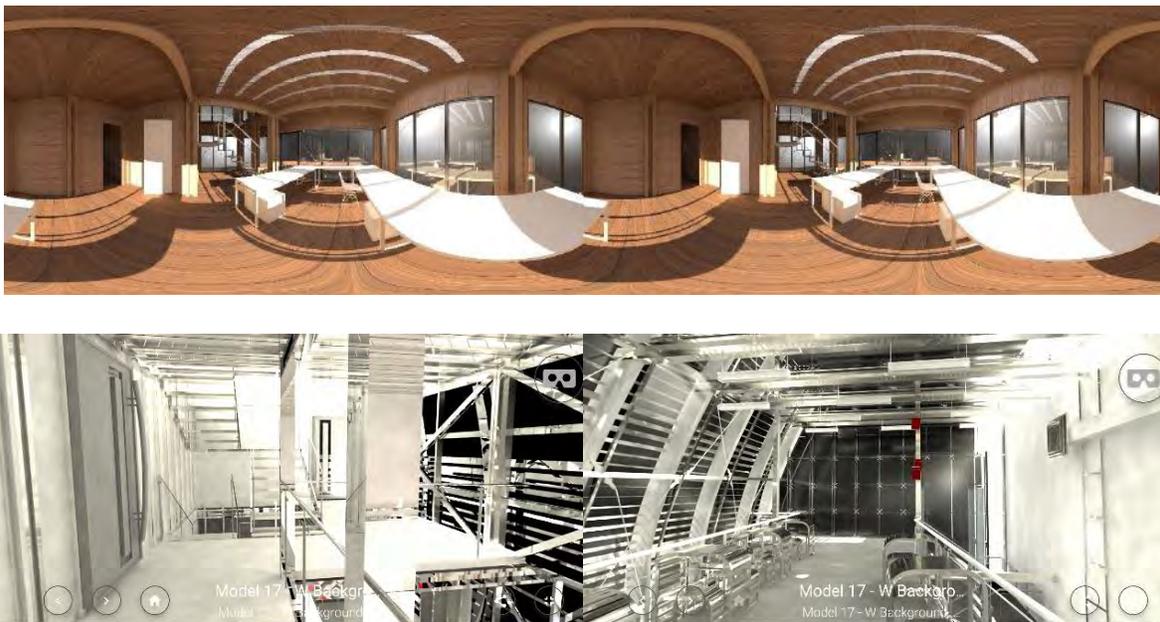


Figure 4 Documentation of process VR materials by first year architectural science students at Ryerson University

As VR functionality and accessibility is on the rise, investment in the acquisition and implementation of such tools within Canadian architecture programs are able to not only serve as a visualization tool, but also become a crucial component of the digital curricula and online education. However, in light of all these technological advancements, faculty are provided with a new challenge: defending the inherent value of in-person architectural education.

Bibliography

Hui, V., Estrina, T., Lee, S., Kinuthia, V., & Zhou, G. (2020). *Architectural Aecessibility and Pedagogy via Virtual Reality Integration*. Honolulu, HI, USA: HUIC ASHE Proceedings.

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ISSUE PAPER 5

Student Choice, University Electives Redefining Architecture

Submitted by

Justin Hung, University of Toronto

CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name:
 Email:

 Title:
 Organization:

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Name of Issue <i>In 5 or 6 words, "label" the issue</i>	Student Choice, University Electives Redefining Architecture
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	<p>This Issue Identification Form is about the idea of the university as a place to explore new ideas. I am speaking from the perspective of a student currently enrolled in architecture school and I propose an elective course requirement in professional architectural education which is specifically outside the discipline of architecture and beyond the walls of the architecture school. I propose this course to encourage more interaction between architects and people who identify themselves with other disciplines in the rich and complex environment of a university.</p> <p>Prior to beginning, half-way-thru, and upon completion of this course, I propose that students write a short text or make a short video for submission to their architecture school faculty and administration indicating how their participation in their selected elective course relates to their personal practice and/or definition of architecture. Furthermore, I propose a publishing platform for students to voluntarily share their texts and videos with others at their school and across the country on the Internet.</p>
Context <i>Provide details of the background that give rise to this issue</i>	Insularity in architecture schools, architectural education, architectural thinking. Also, my own insularity and questioning of what architecture means to me.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference</i>	Writing on this issue contributes to efforts which encourage more inclusive definitions and practices of architecture. Focusing on education, this proposal allots more curriculum and calendar space for architecture students to choose their own path and create their own definition of architecture and architectural education.



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ISSUE PAPER 6

Canadian Architecture Forums on Education (CAFÉ) – Outcomes.
Student voices, student visions

Submitted by

Lisa Landrum, CAFÉ Lead,
representing CCUSA



CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name: **Lisa Landrum, on behalf of the
CAFÉ Capital Steering Group**
Title:

Email:
Organization: **University of Manitoba**

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<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Canadian Architecture Forums on Education - outcomes. Student voices, student visions.</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>Specific issues are in the process of being summarized. The fifth of five forums took place at the University of Calgary on March 12, 2020. Summary reports from prior forums have been posted online for each CAFE > https://architecturecanada.ca/gallery/ (scroll down to each pdf - also attached).</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>This CAFE series involved 12 schools of architecture in five forums over the course of one year. For overview see: https://architecturecanada.ca/</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference</i></p>	<p>Student leaders from all Canadian schools and over 500 students were directly involved in the presentations and round-table consultations. Many more contributed via the creation of manifestos and completion of an online survey.</p>

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Toward an Architecture Policy for Canada

CANADIAN ARCHITECTURE FORUMS ON EDUCATION FORUMS CANADIENS D'ARCHITECTURE SUR L'ÉDUCATION NEWS

October 17, 2019



CAFÉ Atlantic: Launching a National Conversation on the Built Environment in Canada

What is the future of architecture?

On October 7th – world architecture day – over 100 architecture students, educators and professionals gathered in the magical Medjuck Building at Dalhousie University to attempt a response to this difficult question. The occasion was the first in a series of Canadian Architecture Forums on Education, also known as CAFÉs, intended to foster a trans-national conversation on the role of architectural education and research in shaping Canada's future. The aim is to take the pulse of questions and desires currently on the minds of the next generation of design professionals in order to shape the agenda and priorities of a forward-looking architecture policy for Canada.

In addition to regional students, educators and professionals, this first CAFÉ – CAFÉ Atlantic – hosted 10 representatives from four other Canadian schools of architecture, including the University of Calgary, Université Laval, the University of Manitoba, and the University of Toronto.

Aspirations, Concerns and Contexts

The afternoon began with a series of short pecha-kucha-style presentations framing current aspirations, concerns and contexts.

Student co-presidents of the Dalhousie Architecture Students Association (DASA), **Kaley Doleman** and **Stavros Kondeas**, began the session with a welcome and celebration of student diversity and achievements. **Diogo Burnay**, Director of the School

of Architecture at Dalhousie University, emphasized the school's approach to design as simultaneously experimental and grounded in daily life and physicality. Quoting favorite maxims, he emphasized: "The only rule is work." **Lisa Landrum**, CAFÉ Project Lead and Associate Dean Research at the University of Manitoba, provided an overview of the CAFÉ project and its contribution to a broader national initiative to mobilize an architecture policy for Canada through broad public consultation. Nova Scotia architect and RAIC Atlantic Regional Director, **Gregory MacNeil**, summarized RAIC programs aimed at advancing architectural excellence and enhancing public and political appreciation of architecture's value and impact. Prof. **François Dufaux** and graduate-diploma student **Maxime Nadon-Roger** from Université Laval discussed Québec's progress toward a provincial architectural strategy and the unique role the school of architecture plays in reconciling forward-looking ambitions with respect for tradition. Professor **Ted Cavanagh** of Dalhousie University spoke to the importance of elevating research (not just practice) in any conversation about the future of architecture, and to integrating multi-disciplinary research into an architecture policy process, including studies in the social sciences. **Yasmin Al-Samarrai**, the 2018-2019 President of GALDSU, the Graduate Architecture Landscape and Design Student Union at the University of Toronto, commended the multidisciplinary richness of the U. of T. Daniels community and presented some exciting student initiatives in advancing work-life balance, including yoga for architects, film nights, TGIF parties, and a rigorous health and well-being report. **Matthew Gillingham**, a current Master of Architecture thesis student at Dalhousie University, shared a philosophy of architectural education as

“ You put together two things that have not been put together before. And the world is changed. ”

- Julian Barnes /
Prof. Catherine Hamel

“learning how to learn,” which includes learning to appreciate architecture as a verb; to embrace collaboration as key to creativity; and to discover links between personal interests (like grilled cheese sandwiches and drumming) and the synaesthetic pleasures of making and experiencing architecture. **Jessica Piper**, thesis student and president of the University of Manitoba Association of Architecture Students (UMAAS), presented the architectural situation in Winnipeg as a complex nexus of creativity and struggle: a laboratory for hands-on making and successful emerging practitioners, yet also a place continuing to grapple with issues of urban sprawl and social injustice. **Peter Braithwaite**, a Halifax-based architect, shared his trajectory from carpenter to Dalhousie architecture graduate, to design apprentice, to principal of Peter Braithwaite Studio Ltd., with its strong commitment to collaborative processes, design-build and craftsmanship. **Catherine Hamel**, Associate Professor at the University of Calgary, presented a series of probing questions and poetic observations, drawing inspiration from the ancient deity of doorways (Janus), who looks both forward and backward – simultaneously to the future and the past; and the words of Julian Barnes, who reminds us: “You put together two things that have not been put together before. And the world is changed.”





Brian MacKay-Lyons, of MacKay-Lyons Sweetapple Architects, brought the presentations to a close with inspiring built examples and reminders of architecture's social agency. Echoing the poet William Carlos Williams, he asserted "ideas only in things."

Dialogue and Debate

Following the presentations, the assembly divided into smaller groups to begin the interactive core of the CAFÉ: round-table consultations on a set of themes and questions concerning architecture's relation to Place, People, Prosperity and Potential.

Concurrently – across the Bay of Fundy in Moncton – dozens of architects and interns assembled in a meeting of the Architects' Association of New Brunswick (AANB) to discuss these same four themes. Reporting on the consultations began with a virtual exchange between Dalhousie students in Halifax and AANB professionals in Moncton, sharing insights on their respective conversations. AANB past-president **Don Sterritt** reminded everyone that an architect's design attention must extend far beyond the footprint of any building, to enrich the public realm, streetscapes and life of a community. He also emphasized the importance of architects lending their skillsets to the broader social good by participating in activities like Planning Advisory Boards and Community Groups, which precede design work but often establish design agendas and collective aspirations.

Meanwhile, around the tables in Halifax, students articulated a range of issues: the pressing need for present and future architects to tackle the climate crisis and to embrace sustainable design as integral to design excellence; the importance of trans-disciplinary collaboration, such as the crucial

“ ... sharing and community give us an opportunity to develop new forms of policy making. ”

– Sarah Yoes
Dalhousie graduate student

role of humanities in design education to help foster ethical practitioners; and concerns that new developments disregard the history of a place and lack strategies for listening to people, especially Indigenous Peoples. At the same time, students were optimistic that architectural leadership – coupled with public and political support – could renew relations with communities, restore connectivity and local economies, and harness architecture as a powerful tool of reconciliation.

In the closing comments, University of Calgary graduate students **John Baziuk** and **Modjeh Kamal** – who were visiting the east coast of Canada for the first time – expressed gratitude for the opportunity and “unforgettable experience” to discuss these large questions among their new-found Canadian peers. There was a profound sense of common ground being established and expanded, and an inspiring curiosity about the diversity of perspectives, enthusiasms and concerns.

As AANB architect Don Sterritt offered in a follow-up remark, “The conversation with Dalhousie students brought home the concept that this is a much broader initiative

than a professional workshop in a conference room. The notion that we were participating in an initiative that others are also addressing, from different perspectives, makes people aware that they are contributing to something significant.”

The next challenge for both the academic and professional sectors is to expand the circle of conversation to even more public arenas.

Continuing the Conversation

The Canadian Architecture Forums on Education will continue its inclusive arc from East to West with CAFÉ Québec, hosted by the Université de Montréal, on November 11th. Subsequent CAFÉs include CAFÉ Ontario at Ryerson University on February 6, 2020; CAFÉ Prairie at the University of Manitoba on February 28; and CAFÉ West at the University of Calgary on March 12.

If you would like to participate in the CAFÉ initiative, but cannot attend in person, you may join the conversation by completing the CAFÉ Questionnaire and/or by responding to the Call for Manifestos, which invites you to creatively describe your vision, question or concern about the future of architecture.

Full details are available on the website: <https://architecturecanada.ca/> For the Survey and Call for Manifestos click ENGAGE.

For information on the national policy initiative, visit <http://riseforarchitecture.com/>

CAFÉ is supported by a SSHRC Connection grant and contributions from twelve architecture programs represented by the Canadian Council of University Schools of Architecture (CCUSA).

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Toward an Architecture Policy for Canada

CANADIAN ARCHITECTURE FORUMS ON EDUCATION FORUMS CANADIENS D'ARCHITECTURE SUR L'ÉDUCATION

November 18, 2019

NEWS



“ Make architecture
a public policy.”

- Anne Cormier
/ Atelier Big City

CAFÉ Québec: Continuing the Conversation on Architectural Education, Research and Advocacy

On a cold Remembrance Day (Jour du Souvenir), architecture students, educators, practitioners, activists, and researchers gathered at the Université de Montréal at the foot of Mount-Royal for the second forum in the series of Canadian Architecture Forums on Education, or CAFÉs. The event was hosted in the north-east wing of a former convent built in 1936, occupied by the Faculty of Architecture since the seventies and renovated by the Montreal firms Saucier + Perrotte and Menkès Shooner Dagenais in the nineties. About 120 people assembled to consider topics related to Place, People, Prosperity and Potential, while considering how a national architecture policy might inspire positive change.

The event began with brief presentations. Director **Jacques Lachapelle** welcomed visitors, while Professors **Jean-Pierre Chupin** (Université de Montréal) and **Lisa Landrum** (University of Manitoba) introduced the CAFÉs and the aim to involve academic communities in describing architectural

quality and imagining the future of architecture in Canada. Dr. Landrum stressed the importance of involving students and educators in the process, and alluded to etymological links between policy and *polis*, which is Greek for “city” – comprised of citizens speaking and acting together.

Why a national architectural policy?

A variety of regional speakers and student delegates addressed the CAFÉ questions and themes. Architect and professor **Anne Cormier** made a presentation about her career leading to the motto of her architectural firm (Atelier Big City): “Make Architecture a Public Policy.” The firm’s slogan emphasizes that architects have the power to question conventions and redefine the contours of the status quo built environment. Architect **Anne Carrier**, president of the Association of Architects in Private Practice in Québec (AAPPQ), addressed the question of “why a national architectural policy?” – arguing that a policy would help define and promote architecture quality in order to improve our living environment. Former president of the Order of Architects of Québec (OAQ), **Nathalie Dion**, presented the work conducted since 2014 to actively support and shape the adoption of a Québec Architecture Policy, summarized in a document titled *Livre Blanc pour une politique québécoise de l’architecture* published in March 2018. **Bruno Demers**, sociologist and director of Architects Without Borders Québec, advocated for a more humanitarian approach to architecture and outlined a variety of concerns, notably architectural illiteracy in Canada; the scarcity of critical architectural journalism; the lack of politicization of

architects; and the need to support climate action, Indigenous communities, social justice, and research. **Maggie Cabana**, an architect with the Montreal-based practice Architecture Microclimat and 2015 graduate of Université de Montréal, presented examples of small interventions having broad community impact, while emphasizing pressing questions and concerns, including the need to advocate for more accessible and just cities. **Maude Tousignant-Bilodeau**, president of the Université de Montréal student association, *Regroupement d’Étudiants en Architecture* (RÉA), described the status of mental health in architecture schools and the involvement of the RÉA in addressing an ethos of care for student well-being. Finally, **Jonathan Kabumbe** and **Noémie Lavigne**, student-delegates from the McEwen School of Architecture at Laurentian University, presented some of the special focuses of their school’s pedagogy, including the valuation of sustainable building materials, especially wood; the integration of regional and international research trips; and community-oriented design projects involving children and Indigenous groups.

Conversations and Complex Consensus

Following the presentations, attendees joined roundtable discussions, each moderated by a student who oriented conversations and ensured all voices were heard.

As a visiting delegate from Carleton University, I joined a table including representatives from McGill University, Université Laval and Université de Montréal to address the topic of People. We asked questions such as what is the most pressing issue regarding the influence of architecture



“ If the future of our profession depends on a specific issue it may be the capacity to contribute to the fight for a more accessible and just city.”
- Maggie Cabana

We are indebted to the dedicated and generous organizers of CAFÉ Quebec. Too rare are the occasions to gather people from different Canadian universities as well as practicing architects and professional institutions. The CAFÉ was an important way to catalyze serious conversation and intensify thinking about a possible architecture policy for Canada. That timely initiative – following the recent election – has the potential to bring forward changes at the national level in the years to come.

Now that we have returned to our respective schools, the reflection is not over. In our capacity as educators, students and researchers, it is important to assess the ways that those discussions might influence how we teach and conduct research, and attune us to various forms of activism to enhance our built environments.

Future CAFÉs

The next CAFÉ will be hosted by Ryerson University on February 6, 2020; followed by CAFÉ Prairie at the University of Manitoba on February 28, 2020; and CAFÉ West at the University of Calgary on March 12, 2020.

Canadian Architecture Forums on Education are supported by a SSHRC Connection grant and the Canadian Council of University Schools of Architecture (CCUSA), representing twelve architecture programs in Canada.

/ Émélie Desrochers-Turgeon
Émélie is a Ph.D. student and Vanier scholar at Carleton University's Azrieli School of Architecture & Urbanism. She is also coordinator of the research collaborative CRIPTIC (www.criptic.org).



upon individuals and different communities? How can an architecture policy contribute to improving those preoccupations? What are the best examples to illustrate the positive impact of architecture on people? And, what strategies could be employed to help the public better understand the value of well-designed environments?

While it was not difficult to reach consensus about pressing issues, it was more challenging to identify precise strategies to address them. Highlights of the discussion included the suggestion that more education and communication was necessary to generate a better understanding of architecture amongst the general public. It was proposed to give more media attention to the built environment by raising the quality and quantity of architectural criticism in mainstream publications and newspapers. Our group debated if those critics should be architects, academics or unspecialized cultural critics. While there was no consensus on the right background or expertise for critics, there was broad agreement that cross/trans/multi-disciplinary research and collaboration was necessary in architecture. Cross-disciplinarity has the potential to not only deepen appreciation of the built environments in all its complexity, but also to highlight the importance of architecture across diverse domains. Better understanding would mobilize different agents of the built environment, such as entrepreneurs, builders, politicians, institutional boards, and community groups.

Regarding ways that built environments are appreciated, we suggested that the notion of "comfort" might be an accessible way to communicate architecture's qualitative components, thus avoiding a shallow and

ocular-centric interpretation of the built environment. "Comfort" can encompass questions of atmosphere, thermal control, sound quality, natural light, ventilation, safety, aesthetic and synesthetic experience, as well as a sense of community and belonging. Re-considering the place and experience of the human as the center of our concern, leads us to think about the more-than-human issues, like relationships to broader ecosystems. Around the table, the climate crisis was the focus of concern, with sustainability conceptualized in terms of resilience, building regulations and architectural strategies, but also the preservation of historic buildings.

Finally, our group pondered the temporalities of architecture – how we account for the integration of the past, as well as the future and responsibility for heritage. Our table suggested that architects might be involved in projects from their very inception, working with clients early to establish parameters and develop holistic approaches. If time scales might help us to consider differently the processes of the built environment, it also conceptualizes progress, value, growth and prosperity under alternative criteria.

Timely Initiative and Vast Potential

The event addressed the importance of policies and the numerous challenges that built environments confront now and will continue to face in the years to come. More work needs to be done to show specific ways that policies might advocate for reciprocal relationships with Indigenous communities, for spatial justice in cities, as well as how research and education might tackle questions of environmental sustainability early on in the education.

café ONTARIO

Toward an Architecture Policy for Canada

CANADIAN ARCHITECTURE FORUMS ON EDUCATION FORUMS CANADIENS D'ARCHITECTURE SUR L'ÉDUCATION

February 24, 2020

NEWS



“ The existential threat of a changing climate must inform our personal, educational and professional practices. ”

- Sustainability Collective
University of Waterloo

CAFÉ Ontario

On Thursday, February 6th 2020, over one hundred students, academics and professionals gathered in a former fish processing plant – now 307 Sidewalk Labs – to grapple with the slippery question of the future of architecture.

CAFÉ Ontario, the third in a series of Canadian Architecture Forums on Education, was organized by the Ryerson University M.Arch class of 2021 in conjunction with their annual student-led symposium. Student and faculty delegates joined the event from schools across Canada: from the University of British Columbia, Dalhousie University, University of Manitoba, University of Toronto and Waterloo University. The Sidewalk Labs innovation hub and community-outreach centre on Toronto's St. Lawrence Blvd East provided the perfect provocative setting for this transformational dialogue on how politics and architecture shape our communities.

Calls to Action and Awareness

CAFÉ Ontario started with a series of short presentations to set an aspirational tone for subsequent consultations.

Stephanie Steriotis, Ryerson M.Arch student and lead organizer of the symposium, launched the event by thanking the team and describing the tradition of Ryerson student leadership in engaging timely topics via public debate. The annual off-campus symposium mixes emergent and established voices on critical issues facing society, and challenges present and future professionals to rethink their role and modes of practice.

Lisa Landrum, CAFÉ Project Lead and Associate Dean Research at the University of Manitoba's Faculty of Architecture, shared an overview of the CAFÉ initiative and summarized past and upcoming events. The series of forums is involving all twelve University architecture programs in five forums over the course of one year, enabling the next generation of designers to envision a future architecture policy for Canada and to inform its priorities and ambition.

Craig Race, architect and co-founder of Lanescape, provided a compelling example of how policy-making and design-thinking can creatively coalesce. He described a vision for responsibly densifying Toronto's urban core with quality laneway housing and accessible greenspace via innovative zoning policy. Such micro-interventions are already having macro-effects for a more sustainable and pedestrian-friendly urban fabric.

Richard Witt, architect and principal at Quadrangle, shared lessons learned from the process of creating Ontario's first mid-rise mass timber building, 80 Atlantic. Taking advantage of a 2014 amendment to the Ontario Building Code, the award-winning five-story commercial complex features

exposed glulam beams and columns, supporting a nail-laminated timber floor. The result is not only a beautiful and bright open work space, but a building that acts as an agent of environmental change by sequestering carbon and offsetting more greenhouse gas intensive construction practices.

Next up, University of Toronto graduate students and GALDSU representatives shared initiatives and option studios at the Daniels Faculty of Architecture Landscape and Design. **Adam Krajewski**, **Valerie Marshall** and **Jana Nitschke** each reflected on how the Daniels pedagogy and new facility balances radical technology-enhanced design exploration with community engagement and experiential learning via global field trips.

Devin Arndt and **Nicole Rak**, M.Arch students and Sustainability Collective Directors at University of Waterloo, shared a variety of bottom-up student initiatives that are motivating institutional change. Their advocacy and activism include waste management systems for design studios, and principle-based climate actions that acknowledge inextricable links between architectural decisions, environmental rights and human rights.

Jesse Martyn and **Vincent Perron**, UBC graduate students and members of the Architecture Union of Students (ARCHUS), provided an overview of work and wellness strategies at the School of Architecture + Landscape Architecture (SALA). Studying in the context of Vancouver's housing crisis and investment-driven development, SALA students are grounded by environmental, ethical and speculative design approaches fostering resilience, social well-being, material knowledge, and fun.



“ What is our role in architecture policy? ”

- Equality in Architecture (EiA)
Dalhousie University



Finally, **Karen Mills** and **Sarah Yoes**, M.Arch students at Dalhousie University, shared the goals and accomplishments of the student-led organization Equality in Architecture (EiA). Aimed at supporting diversity in areas of gender, ethnicity, socioeconomic status and accessibility, EiA is raising awareness within and beyond academia via knowledge-building workshops, research and special events.

Consultation & Conversation

Fueled by these examples of design and advocacy, CAFÉ Ontario participants turned their attention to a set of specific themes for discussion and debate. Thirteen groups joined the round table consultations on questions concerning architecture's impact on Place, People, Prosperity and Potential.

Key take-aways from these animated conversations included the following insight: that any architecture policy must set ambitious yet open-ended goals, so as to be adaptable to different regions and attuned to change over time. For a country as large and diverse as Canada, policy adaptability to local conditions is a crucial challenge. One consultation group, which had focused on Prosperity, emphasized architecture's role in shaping not simply buildings but society and identified the need to redefine the role of the architect in terms of listening to and interpreting the desires of communities. Another group discussing Prosperity asked *whose prosperity?* - suggesting equity and inclusion ought to be guiding principles in setting goals and assessing success. While there was some concern that status-quo development, suburban sprawl and revenue-driven design would be difficult to combat, it was highlighted that existing policies enabling such practices are devised by people, so people can change and improve

them. There was also an overwhelming sense that public education about the impact of design on daily life should be enhanced. As one group stressed: understanding architecture's impact on environmental and social justice is not only broadly important, but urgent.

Architecture cannot be divorced from politics!

After a stimulating social break and delicious catered feast, participants reassembled for an engaging panel discussion. Moderated by former *Canadian Architect* editor **Ian Chodikoff**, the four panelists included: **Anne Cormier**, Professor and LEAP Researcher at the Université de Montréal, and co-founder of Atelier Big City, whose motto is "make architecture a public policy"; **Toon Dreessen**, President of DCA Architects in Ottawa, OAA past-President, and member of the working group mobilizing a national architecture policy and *Rise for Architecture* platform; **Peter Milczyn**, former Ontario Minister of Housing and architecturally-trained city-building strategist with PM Strategies; and **Alex Josephson**, lecturer at University of Toronto's Daniels Faculty and co-founder of PARTISANS, an entrepreneurial architectural practice striving "to make the improbable possible." Together, these politically-savvy maker-thinkers delved deeper into the role of architects in elevating public understanding of the value of design, and underscoring the links between architecture and politics and the need for more architecturally-trained individuals to serve in government.

Ongoing Discussion

The next morning, student leaders from three Universities met at *Page One* - a favorite café among Ryerson journalist students - to reflect and plan further initiatives.

Future Forums

The next forum - CAFÉ Prairie - will be hosted by the University of Manitoba on February 28, 2020, and will include a Nation-to-Nation conversation on Indigenous Principles, Perspectives and Practices. The fifth and final CAFÉ West will be hosted at the University of Calgary on March 12, 2020.

More Ways to Participate

Aside from attending a CAFÉ in person, anyone can participate in the initiative by completing the online survey and/or by responding to the Call for Manifestos, which invites students to describe a vision, question or concern about the future of architecture. All feedback will help shape the priorities and ambition of any future architecture policy for Canada. Full details are available on the website: <https://architecturecanada.ca>

Canadian Architecture Forums on Education are supported by a SSHRC Connection grant and the Canadian Council of University Schools of Architecture (CCUSA), representing twelve architecture programs in Canada.

/Lisa Landrum



café PRAIRIE

Toward an Architecture Policy for Canada

CANADIAN ARCHITECTURE FORUMS ON EDUCATION
FORUMS CANADIENS D'ARCHITECTURE SUR L'ÉDUCATION

March 6, 2020

NEWS



“ Looking back to
move forward.

- Ryan Gorrie
Architect at Brook McIlroy

CAFÉ Prairie

CAFÉ Prairie was hosted on February 28th 2020 at the University of Manitoba, on original lands of Anishinaabeg, Cree, Oji-Cree, Dakota, and Dene peoples, and on the homeland of the Métis Nation. As the site for the National Centre for Truth and Reconciliation, and with its strong commitment to Indigenous achievement, the University of Manitoba was a fitting venue to support a special CAFÉ conversation on Indigenous principles, perspectives and practices in shaping Canada's architecture.

Nation-to-Nation

The morning started with a smudge and song ceremony led by the **Kind Hart Women Singers**. Scented smoke, rhythmic drums and multiple Indigenous languages filled Centre Space of the John A. Russell Building, the first purpose-built architecture school in Canada. University of Manitoba architecture students and members of the newly-founded Indigenous Design and Planning Student Association (IDPSA), **Danielle Desjarlais** and **Reanna Merasty**, introduced and moderated the conversation. Entitled *Nation-to-Nation*, the panel discussion aimed to deepen understanding of multiple First Nations communities; to acknowledge Canada's commitment to nation-to-nation relations with First Nations, Inuit and Métis peoples

based on recognition of rights, respect and co-operation; and to ask how architects can help advance the Calls to Action of the Truth and Reconciliation Commission of Canada. The panel was generously sponsored by the Manitoba Association of Architects.

David Fortin, member of the Métis Nation of Ontario and director of the McEwen School of Architecture at Laurentian University, began by presenting architecture's role in fostering relationships, reciprocity and respect. The McEwen school aims to instill these values by incorporating Indigenous content throughout the curriculum in studies of ecology, cultural sustainability, precedents and history, and through land-based teachings, ceremony, language and engagement with elders.

Anishinaabe architect and senior associate at Brook McIlroy, **Ryan Gorrie**, shared a vision of "looking back to move forward," embracing a multi-generational approach to learning and design. Through examples of award-winning built projects, he showed the potential to meaningfully recover rich stories and histories of Indigenous cultures in vital and contemporary ways.

Roxanne Greene, Anishinaabe councillor for Shoal Lake 40, emphasized the role of dialogue and respect in all partnerships. Most important, she stressed, is an open heart. Roxanne's recent design-build collaboration with University of Manitoba students, Indigenous scholar Shawn Bailey, and Shoal Lake residents and Elders exemplifies possibilities for community partnerships.

Gitksan Nation artist, author, storyteller and Prairie Climate Centre technician, **Brett Huson**, called on architects to *truly* "acknowledge the land" as that which we inherit and become responsible for; and as that which we come from and return to. The

land shapes us and we must give back to it – ten times what we take.

Amina Lalor, a Métis-Irish-Vietnamese graduate student at the University of Waterloo's School of Architecture and co-founder of *Treaty Lands Global Stories*, challenged architects to critically acknowledge the colonial nature of their practice, and to attempt a deep site analysis of where they work through decolonizing place narratives. Her collaborative project with University of Guelph Indigenous scholars called *Nokum's House* provides one possibility for a land-based research lab.

Nicole Luke, an urban Inuk born in Yellowknife, now pursuing a M.Arch at the University of Manitoba, described an apparent disconnect between architectural education and northern communities, as well as opportunities for work and research. She also speculated on how an architecture policy might help bridge gaps, while ensuring sustainability and Inuit autonomy.

Cheyenne Thomas, designer and RAIC Indigenous Task Force member, addressed the challenges experienced by many Indigenous students attending university while acknowledging recent positive changes, evidenced by the increasing number of Indigenous architecture students, mutual support networks, and open discussions like the one underway.

The panel conversation elaborated on many of these topics. All participants were inspired to seriously consider what grounds them as designers; to make space for true agency and expression; to hold governments and institutions accountable for promises; and to rally around concerns that unite non-Indigenous and Indigenous peoples, such as care for the planet, land, water and future generations.



“ I hope to be a part of the movement to bring environmental and architectural aspects to arctic infrastructure and inspire Inuit youth. ”

- Nicole Luke
M.Arch Student, University of Manitoba



CAFÉ Conversations

After sharing a meal of bison stew, provided by Indigenous-owned Feast Café Bistro, participants reconvened for an afternoon of presentations and consultations.

CAFÉ Project Lead, **Lisa Landrum**, relayed the impetus for these SSHRC-supported trans-national conversations, intended to involve students in defining the scope and aims of an architecture policy for Canada. University of Manitoba M.Arch students and graduate representatives, **Jessica Piper** and **Tia Watson**, described the experiential learning aspects of the Faculty of Architecture, including community-outreach and design-build opportunities. **Johanna Hurme**, co-founder of the award-winning Winnipeg firm 5468796 Architecture, stressed that any architecture policy must address the “missing middle” – through sustainable development, affordable housing, specific measurable targets, incentives, quality-based selection processes, and education. **Julia Nakanishi**, M.Arch student at the University of Waterloo, shared initiatives she has led as co-director of the BRIDGE Centre for Architecture and Design. These include a recent interactive exhibition called *Common Waters*, examining the future of communities in relation to a transforming environment. **Sarah Cooper**, professor of City Planning at the University of Manitoba, addressed the specific challenge of de-commodifying and decolonizing “home” and the general imperative that policy reform be an agent of social justice. **Nik Luka**, professor of Architecture and Urban Planning at McGill University, described strategies of “unforgetting” the wrongs of the past through curriculum reform and community engagement. M.Arch students from UBC’s School of Architecture + Landscape Architecture (SALA), **Emilia Brasdefer**, **Thomas Foster** and

Halley Sveinson, outlined various streams of student-led social and environmental activism, and posed specific questions as to how any architecture policy would advance positive potential in areas of human and animal rights, inclusive urbanism and sustainability. **Monica Giesbrecht**, landscape architect and principal at HTFC Planning & Design, shared an ethos of humility and open-mindedness in approaching design. She also highlighted the potential for collaborative research and outreach projects to instill a love of landscape among youth and to create more sustainable communities. **Max Vos Coupal**, M.Arch student at Laurentian University, presented an overview of the people, place and material sensibilities defining the McEwen School of Architecture community. UBC architecture professor **John Bass** stressed the importance of simple yet powerful communication skills for any architect, and described four overlapping modes of practice crucial to the evolving profession: artisan, ecologist, industrialist and activist. **Wins Bridgman**, co-director of BridgmanCollaborative Architecture demonstrated the firm’s motto of *making public work* by sharing activist-designs engaging humor, metaphor and direct calls for social equity. Finally, McGill University architecture students **Odile Lamy**, **Michael Kurt Mayer** and **Olivier Therrien** presented a series of pedagogical strategies aimed at learning how to engage unpredictability, to work with communities, to model environmental systems, and to value processes of formation over form.

Fueled by the examples and advocacy of the presenters, CAFÉ participants turned to focus on more intimate round-table conversations addressing specific themes of architecture’s impact on Place, People, Prosperity and Potential.

Provocations and Questions

While difficult to synthesize the full day of discourse, two guest respondents provided key concluding remarks at the end of CAFÉ Prairie. **Rafico Ruiz**, Associate Director of Research at the Canadian Centre for Architecture, highlighted the inspirational atmosphere in the room and the invention of new relationships and possibilities formed through dialogue. He encouraged participants to engage cultural institutions, like the CCA, and to help ensure they are reflecting goals and aspirations of the communities they serve. He also provocatively asked how an architecture policy might be manifested as an exhibition, and what would be its interactive medium and rousing title.

Andrea Rounce, University of Manitoba Political Studies professor, posed a series of questions grounded in her expertise in public administration: What would a successful policy look like? How would we know it’s successful? What assumptions are design professionals and students making about social change? Who drives this change? And, who prevents it? Is public policy sufficient to make change, or does it also require that change be undertaken by the people and professions represented in this event?

CAFÉ Prairie culminated with a tour of design studios and the CAFÉ CAFÉ exhibition in the Arch2 Gallery, and a social mixer.

As a personal observation, at the end of this CAFÉ (as with all of them), and especially upon hearing the student table captains, I have felt convinced that positive change is already underway and the future of architecture is in good hands.

The fifth and final CAFÉ will be held at the University of Calgary’s City Building Design Lab on March 12, 2020.

/Lisa Landrum



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ISSUE PAPER 7

Architects in Canada: What do they do? What do we expect of them?

Submitted by

François Dufaux, Laval University

CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name: Email:

Title: Organization:

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB 2020 Conference in October 2020. This form can be a standalone document or used as a cover page for an additional companion paper.

<p>Name of Issue</p> <p><i>In 5 or 6 words, "label" the issue.</i></p>	<p>Architects in Canada: What do they do? What do we expect of them?</p> <p>A portrait of what architects do, their legal and economic working conditions, and the social and cultural expectations of their contribution.</p>
<p>Issue Description</p> <p><i>In a paragraph or two, describe the issue more fully.</i></p>	<p>Architectural education as well as professional organizations and documentation on the practice of architecture (RAIC Handbook, OAQ) reflect a practice organized around large offices working for government, the commercial sector and alternatively the residential/housing market.</p> <p>But what is the actual market for architects? Where do these orders come from and for which offices? What is the impact of the regulatory framework - 300m2 in Quebec and 600m2 in Canada? What are the federal and provincial government policies that determine the services and their economic conditions? What projects are on the horizon for the next 20 years: expansion, renovation, growth or decline?</p> <p>In broad terms, the discipline of architecture chooses to define what it wants and believes it should do, which is precisely the theme of the presentation.</p> <p>However, does the academic and professional community provide an answer to a question that no one has asked?</p> <p>What does society expect? What are the legal, economic and geographical structural conditions that support or hinder the use of architects? What can we learn from what we do (versus what we would like to do)?</p>

<p>Context</p> <p><i>Provide details of the background that give rise to the issue</i></p>	<p>Architects are actors in the production of the built environment. They have important responsibilities in the design, monitoring and compliance of the agreed upon built structure. They exercise authority over the various stages of their involvement with their public and private clients, as well as with building production partners.</p> <p>What is the actual contribution and their recognized competence vis-à-vis the construction market?</p> <p>The public procurement process based on choosing the lowest bid is the symbolic expression of an economic framework that is indifferent to competence and to the professional freedom that is expected and for which the architect remains responsible.</p> <p>Statistics Canada closely monitors housing starts and the economic impact of this sector, but usually ignores the role and involvement of architects. The statistics are incomplete and difficult to compare for the purpose of assessing change or stability. Since the practice is legally defined by the provinces, and permits are issued by the municipalities, it is necessary to extract factual information in order to establish the basis for a portrait,</p> <p>What is the percentage of architects by public, commercial and residential sectors? What regions and environments are more favourable or unfavourable to them? What is their role in the real estate sector that is largely supported by an array of direct and indirect economic policies?</p> <p>Are these conditions related to historical structural conditions? Or are they affected by various policies, such as the marginalization of architects in the housing sector through CMHC programs from the 1950s onwards?</p> <p>How can we explain this correlation between society's expectations and the ambitions of the discipline? What are the implications for teaching, continuing education, professional practice and economic and social recognition?</p>
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Relevance

In a few sentences, state why this issue is important and should be discussed at the 2020 Conference.

Thirty years ago, the free trade agreement required a reorganization of education and the profession based on the assumption that the adoption of American standards and models of education, practice and architecture would lead to growth in the discipline and in the market for graduates and agencies. Federal statistics show that service exports are still marginal, less than 5%, and carried out according to rules other than program similarity or legal recognition. What about the export of training services? What can we learn from the last 30 years?

The deregulation of the scope of practice of professional services and fees has been a theme since the 1990s in both America and Europe. At the same time, new management "specialists" have crept into projects, often competing with architects on costs and fees with a limited understanding of real estate production and maintenance issues.

Furthermore, what are the concrete challenges in the short, medium and long term? Governments verbally commit to sustainability, but how does the built environment designed by architects achieve these targets?

This paper will present an objective approach to the practice of architecture in Canada, with a view to capturing the current ecology of the professional environment.

In charge of teaching professional practice at Université Laval's School of Architecture for the past 15 years, I have amassed considerable documentation between data and case studies that provide some answers.

Two areas of focus emerge from these findings. First, it becomes possible to ask specific questions about the nature of academic learning and continuing education.

Second, recognizing the characteristics of the present conditions, the discipline as a whole, including education and professional associations, can establish the limits to be safeguarded and those to be surpassed to ensure the development of architecture in Canada.

This approach therefore seeks the answers suggested in the call for papers, but on the basis of an objective knowledge of the area of expertise and practice recognized and entrusted to architects by the society they serve.



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ISSUE PAPER 8

Lack of Mandatory Internship during Studies



CACB 2020 CONFERENCE

ISSUE IDENTIFICATION FORM

Name:

Email:

Title: **Architecture Student/Intern**

Organization: **Laval University**

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB 2020 Conference in October 2020. This form can be a standalone document or used as a cover page for an additional companion paper.

<p>Name of Issue <i>In 5 or 6 words, "label" the issue.</i></p>	<p>Lack of mandatory internships during studies.</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>In my experience, students in any field are required to complete internships during their studies. However, in architecture, many students graduate without having completed any kind of internship in a firm or other enterprise. As a result, five years go by without them gaining any real knowledge or understanding of the reality of the profession they will be practising.</p>
<p>Context <i>Provide details of the background that give rise to the issue</i></p>	<p>The background giving rise to the issue is, in my view, the lack of a practical perspective that is too often neglected at the undergraduate and graduate levels. Internships are optional, with a maximum of 940 hours of work experience recognized by the OAQ [Quebec order of architects] for enrolled students. However, internships should be integrated through courses and sessions.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2020 Conference.</i></p>	<p>It is my view that this issue is relevant to the future practice of the profession. I believe it would be ideal to include a variety of work experience opportunities in agencies, on project sites or others, through university continuing education. This would mean that all students would have completed a number of hours by the time they complete their graduate studies and would have a real sense of what the profession is all about, having learned more of the practical side of being an architect.</p>



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ISSUE PAPER 9

The Role of Architecture in Meeting the UN SDGs

Submitted by

**Mark Gorgolewski, Toronto Metropolitan
University (Ryerson)**

The role of architecture in meeting the UN SDGs

*Professor Mark Gorgolewski
Ryerson University*

The UN Sustainable Development Goals (SDGs) are increasingly being used to measure progress and as a tool to help direct decision making and resource allocation. Focus on the seventeen SDG's brings together important issues such as gender equality and diversity, health and wellbeing, planetary health, resource use, and indigenous issues. These goals provide a challenge for humanity to define a future path that goes beyond measures of economic growth to include other concerns such as climate change, poverty and inequality. Given the scale of ambition of SDGs, this program requires strong collaboration among many stakeholders and disciplines if significant progress towards the goals is to be made. The built environment, architecture, design and planning interact with all these goals through realised buildings, urban designs, ecologies, cities, and how they all meet their community's needs.

The world's population is rapidly urbanizing, and the SDGs reinforce the importance of cities both in terms of opportunities but also vulnerabilities. The focus is on urbanization and migration, as well as related issues like land use, living space, mass housing, affordability, and resources. The issue of climate change and its interface with greater urbanization poses a unique set of challenges linked to energy, health, water, sanitation, and increased resiliency.

The process of designing and creating a built environment consistent with the SDGs requires a better understanding of the SDGs and their implications on design. Architecture should figure prominently in the implementation of the goals on the global stage. Architecture as a discipline has a critical role in the implementation and addressing of many of these seventeen SDGs at both a local and global scale.

Questions about the role of the architectural profession and architectural education to address the SDGs are crucial to the continuing relevance of the discipline, and its potential to help address these goals. Architects can provide the much-needed tools to better meet the complexity of urbanization and the delicate balance that is needed to manage public and social needs against environment and design. Due to its central role and its integrative process the architectural community can reimagine and tackle issues in a holistic manner addressing the larger collective social need.

Given the central role of the architect in how cities are envisioned and designed the architect can directly shape the outcomes of a project to the betterment of a community's overall quality of life, sustainability, social equity, health and resilience. Some architectural practices are beginning to bringing the SDG's into their architectural projects. By using the SDGs to set targets, integrating SDGs into each design phase, and combining with processes that use the SDGs as a tool for evaluating progress, projects can be benchmarked against some or all seventeen SDG's in a way that builds upon and measures project objectives.

In educating the architects of the future, schools of architecture and accreditation bodies for architectural education have a central role in establishing the SDGs as central aspects of the architectural discipline and discourse. They can also disseminate knowledge from their curriculum, scholarship and research into local practice and community to build awareness and capacity in the profession. This is happening in some cases where architects are incorporating social and environmental factors as a core part of their design strategy, but rarely with reference to the specifics of SDGs.

So how do the SDGs impact the architectural curriculum and architectural profession? How can the discipline take action to use the SDGs as a positive and creative tool for change? Should the CACB accreditation requirements ask programs to address this objective?



SUSTAINABLE DEVELOPMENT GOALS





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ISSUE PAPER 10

Climate Action Leadership: Accelerating Progress to Equitable
Decarbonization and Defining Competency Pathways
in Architecture



#1

COMPLETE

Page 1:

Q1

Architect

Please select all that apply to you:

Q2

Name of Issue (in 5 or 6 words, "label" the issue):

Climate Action Leadership: accelerating progress to equitable decarbonization and defining competency pathways in architecture

Q3

Issue Description (in a paragraph or two, describe the issue more fully):

The RAIC has recently struck a Climate Action Plan and describe it as follows:

"At its core, the climate crisis is a human problem. The need for climate action and the necessary technology have long been identified and available. To drive change, the CAP will encompass a suite of communications and convening activities to accelerate the scale and pace of progress for design and construction for human, climate and ecological health.

The RAIC CAP-SC will be convening working groups to support the overall scope of the committee including, information gathering, consultation, synthesis, engagement and implementation. To accelerate the transition to design and construction for human, climate and ecological health the working groups are organized around three main areas of focus. Each area will have objectives that each group will work to accomplish.

Education Goal: To develop the competency pathways (knowledge, skills and abilities) for climate action leadership across the full life cycle of learning for students, intern architects, licenced architects and unlicensed practitioners. Recognizing the interconnected climate and ecological system emergencies, promote mandatory competencies at all levels.

Practice Goal: To shape the future of practice to accelerate the pace and scale of progress in responding to the climate emergency and promoting holistic health: human health, climate system health, ecological systems health.

Advocacy Goal: To identify high impact focus points for RAIC climate action advocacy and partnership development to grow the impact of advocacy."

How can the CACB, ROAC and CCUSA coordinate with these goals of the RAIC in order to create a fully integrated program that effectively accelerates climate action without leaving anyone behind?

Q4

Context (provide details of the background that give rise to this issue):

As above.

Q5

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

As above.



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ISSUE PAPER 11

Understanding about Accessibility and Inclusion



#2

COMPLETE

Page 1:

Q1

Student

Please select all that apply to you:

Q2

Name of Issue (in 5 or 6 words, "label" the issue):

understanding about accessibility + inclusion

Q3

Issue Description (in a paragraph or two, describe the issue more fully):

There is little understanding in the design community about how to understand lived experiences of marginalized peoples, how to convert these narratives into information for the design process, how to check that design decisions integrate this, and how to evaluate the final project from the users' experience.

Not only is the understanding of how to design and develop built spaces that are actually functionally inclusive, there is little understanding of how to assess that these spaces are more than photogenic.

Q4

Context (provide details of the background that give rise to this issue):

We continue to collect stories from potential users that they cannot access or function within built spaces since they are not actually inclusive though they might have met the local regulations.

Generally architects are not able to see what they cannot see and need to turn to users, stakeholders and others who see and know this. Consider integrating researchers into this question into the conversation about how to make a difference. We might be on the 'outside' of the field but we are all affected by the anemic decisions made by architects.

Q5

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

Really - because it's time to make sure that each project is functionally accessible. There is no excuse anymore to develop any project that excluded folks through barriers. We know this. We know how to build better. It seems like the awareness of the responsibility and how to do this well is lacking.



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ISSUE PAPER 12

Attract the Interest of the Class of Young Students in Private
Professional Design Schools vs. Universities



#3

COMPLETE

Page 1:

Q1

Educator,

Please select all that apply to you:

Intern

Q2

Name of Issue (in 5 or 6 words, "label" the issue):

Attract the interest of the class of young students in private professional design schools versus universities

Q3

Issue Description (in a paragraph or two, describe the issue more fully):

How to attract the interest of 70% of the class of young students of Professional Private Schools of Design who show indifference to the study believing that they already know it or that the classes that are taught are old models -like the lecorbuosionan proportion- and that everything already it is given in the technology and that the teacher also has to take them by the hand in the matter so that they learn because they will not look for the how, nor do they know how to look for the path, to find it, and that, furthermore, they do not maintain adequate attention in class .

Versus

Universities where they really focus on studying and doing research on their own.

Q4

Context (provide details of the background that give rise to this issue):

I have been as a Teacher in both Institutions, and I have had those experiences.

Q5

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

Because educator need to know how to manage this situation in order to control the advancement of knowledge of the students



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ISSUE PAPER 13

Cooperative Education Must be Reassessed

Submitted by

**Vincent Hui, Toronto Metropolitan University
(Ryerson)**

#6

COMPLETE

Page 1:

Q1

Name

Vincent Hui

Q2

Email

Q3

Job title

Associate Professor & Associate Chair

Q4

Organization

Toronto Metropolitan University, Department of Architectural Science

Q5

Name of Issue (in 5 or 6 words, "label" the issue):

Cooperative Education Must Be Reassessed

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

Do the current models of cooperative education model prove to be successful in the continuum of architecture? While cooperative education has become a commodity across architectural pedagogy, unlike its curricular counterparts regulated by agencies such as the CACB, there is a great range of models and outcomes among institutions on how they serve as a nexus to architectural praxis. Architectural education provides a robust background that yields opportunities to not only experience the varied tasks in the design and production of the built environment, but also pursue a diversity of career paths. The ever-evolving continuum of architecture is no longer bound to the creation of buildings. Is the architectural academy, via their ubiquitous cooperative education programs, addressing these shifts?

Q7

Context (provide details of the background that give rise to this issue):

The architectural discipline and profession are changing rapidly. Cooperative education programs are more than venues for students to learn what was not dispensed with in the studio and classroom and far more invaluable than vehicles to offset postsecondary tuition; they serve as opportunities for students to gain experience in their future careers by applying the skills and knowledge cultivated in school. The once pragmatic and linear procedure of education, experience, and examination to become an architect is now a network of opportunities into a range of careers in different professions. From real property management and sustainability consultation through to video game and set design, an architectural education affords its students diverse career options. The disparity between the number of students graduating from architecture programs and actual licensed architects remains quite high. High school students enter architecture programs intent on becoming architects but the conversion remains low, regardless of access to cooperative programming. While professional bodies have regulated student performance criteria to validate architectural education, the skills developed within these institutions mobilize students for growing career paths mandating design thinking. In light of this expansion of career paths, the role of cooperative education in architecture programs is becoming a critical component in molding students. It is worth reassessing what can be elicited from these programs and how general guidelines and standards may be applied, if at all. To ascribe mandated professional benchmarks and criteria in cooperative education programs may be too onerous and inflexible whereas providing students opportunities too far removed from what was dispensed in academia may be inappropriate. With the former, cooperative education programs run the risk of solely producing the architects of today whereas the latter holds the promise of creating the designers of tomorrow.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

Cooperative education is a ubiquitous component in architectural education which holds the opportunity for students to gain invaluable experience for their future career paths. These career paths do not necessarily fall into conventional architectural praxis. While strides in recognizing professional experience undertaken during cooperative education have incentivized students towards architectural licensure, students have also increasingly engaged cooperative education experiences beyond conventional architectural practice in a range of design disciplines. Within the continuum of architecture, it is imperative for educators to discuss frameworks and guidelines engaging this shift now rather than allow other stakeholders to determine them for us.



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ISSUE PAPER 14

New Approaches to the Architecture Learning Continuum

Submitted by

Douglas MacLeod, Athabasca University

#7

COMPLETE

Page 1:

Q1

Name

Douglas MacLeod

Q2

Email

Q3

Job title

Chair, RAIC Centre for Architecture

Q4

Organization

Athabasca University

Q5

Name of Issue (in 5 or 6 words, "label" the issue):

New Approaches to the Architecture Learning Continuum

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

New approaches and emergent technologies can create a seamless, accessible and lifelong learning experience. Virtual and Augmented Reality, the Internet of Things and Artificial Intelligence can be combined to create Digital Twins that can virtually represent (and mimic the behaviour of) anything from a solar panel to an entire building.

Soon we will be able to immerse learners in high-quality interactive visualizations that are informed by real time data provided by wireless sensors and where they will be able to engage with multiple Artificial Intelligences. Moreover, these experiences can be delivered to the learner no matter where they are in the world and at a time that is convenient to them. With these tools we can create a learning continuum that is engaging, flexible, open and inclusive.

Q7

Context (provide details of the background that give rise to this issue):

The pandemic dramatically demonstrated both the need for online and virtual approaches to learning and the feasibility and benefits of doing so - but there is much more that we could do.

Today our students play videogames of exceptional visual quality and soon we will be teaching a generation of students that has never known a world without smartphones. We need to adjust all phases of the Architecture Continuum to take advantage of these new opportunities.

In many ways these new approaches represent a much needed renovation of our learning systems. At the same time, these new tools can be expensive and demand new forms of expertise. Learning institutions across Canada (and around the world) need to work together to maximize the possibilities and share the costs of creating these new learning experiences.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

Incorporating new approaches into the Architecture Continuum is essential to the future of the profession. Digital Twins and their associated technologies provide us with the means to design better buildings that are more energy efficient, healthier, safer and less expensive to build and operate.

Moreover, by making learning about architecture more engaging, accessible and flexible we can dramatically improve the diversity of the profession; make it more attractive to under-represented groups; and provide an education continuum that is equitable for all.



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ISSUE PAPER 15

Assessing Efficacy of Exposure to the Profession During Architecture
School in Canada

Submitted by

The Ontario Association of Architects (OAA)

CACB CONFERENCE

ISSUE IDENTIFICATION FORM

Name:.....

Email:.....

Title:.....

Organization: Ontario Association of Architects (OAA).....

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Assessing the efficacy of exposure to the practice and profession of architecture during architecture school.</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>Issue: Are Canadian architecture students currently offered adequate exposure to the practice during architecture school ensuring a reasonable transition from school to internship and licensure?</p> <p>The performance criteria set forth in the <i>CACB Conditions and Terms for Accreditation - 2017 Edition - 3.11</i> indicates that as part of the accreditation process "The Program must demonstrate its approach to engaging with the profession and exposing students to a breadth of professional opportunities and career paths, including the transition to internship and licensure" (pg 18). While there is no doubt that there is required exposure to the profession during architecture school, the question that arises is whether there might be a difference between demonstrating exposure versus demonstrating <i>effective</i> exposure and, moreover, how might that be measured?</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>Understanding the relationship between architecture school and the profession/licensure is a well-established discussion. In fact, it was arguably the focal point of the 2013 CALA Survey of practicing professionals wherein the first question asked was "please indicate how well or poorly the recent graduates (in the last 2-3 years) or interns your firm has hired are prepared for internship in general" perhaps setting precedent for re-issuing this survey as a means of assessing and comparing data about this question, nearly a decade later.</p> <p>In addition, the OAA continues to hear anecdotally, from both students and practitioners, that interns could be better prepared for the transition from architecture school into the Internship in Architecture Program (IAP). In an effort to further substantiate these comments, the OAA worked with a third-party research firm to survey the OAA membership in fall 2021 about their exposure to practice during school, as well as their mentorship experience. Survey results revealed that licensed and retired members who participated in the survey almost unanimously (95%) agree that students would benefit from additional exposure to the profession while pursuing their architecture degree. While we appreciate that this is a likely response, the OAA feels that further discussion on this topic is warranted.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i></p>	<p>The world has experienced significant changes over these past few years - seemingly every facet of life, the environment, education and the practice of architecture has been affected and it would be an appropriate time to discuss and debate this important issue i.e. the efficacy in exposure to practice that students receive while in architecture school, as well as it providing a follow-up to the 2013 CALA Survey. As a member of the architectural regulators in Canada, and with responsibilities for setting the education and competency standards for the profession in Canada, the OAA has a responsibility to respond to these opportunities to provide input into these issues currently being faced by the profession.</p>

Assessing Efficacy of Exposure to the Profession During Architecture School in Canada

CACB Conference 2022:

Ontario Association of Architects - issue companion paper

Issue

Are Canadian architecture students currently offered adequate exposure to the practice of architecture during architecture school ensuring a reasonable transition from school to internship and/or licensure?

Introduction

The Ontario Association Architects' (OAA) Comprehensive Education Committee (CEC) has prepared this brief issue paper in response to the call for submissions issued by the National Validation Conference Committee. Consideration of this issue in the context of a more fulsome discussion at the national level is consistent with the OAA's roles and responsibilities to protect the public interest. And in doing so, the expectation is that the profession can confirm the education received by future licensed practitioners of the profession of architecture is of the highest quality.

As a member of the architectural regulators in Canada, and with the duty of setting the education and competency standards for the profession in Canada, the OAA has a responsibility to respond to these opportunities to provide input into such current issues.

Background

The pathway to becoming an architect in Canada includes three distinct elements: Education, Experience, and Examination. *The Canadian Standard of Competency for Architects* identifies which competencies should be gained through that process and generally at what stage of the pathway continuum.

Throughout the continuum, there are varying degrees of theoretical versus practical learning. It is suggested that both students and the profession would welcome additional hands-on practical experience in regard to aspects of architecture, particularly beyond concept and schematic design.

The issue for further discussion and study is whether the efficacy of the exposure to the profession and the practice of architecture during architecture school could be enhanced, and thus the students, the profession, and the public be better served.

This issue was arguably the focal point of a 2013 survey of practising professionals by the group now known as Regulatory Organizations of Architecture in Canada (ROAC), formerly CALA. It instructed participants to *"indicate how well or poorly the recent graduates (in the last 2-3 years) or interns your firm has hired are prepared for internship in general."* Approximately 26% of survey respondents answered "well prepared." Having set this benchmark, it would be helpful to re-issue the survey now, almost a decade later, to assess and compare the results.

Additionally, the OAA continues to hear anecdotally, from both students and practitioners, that interns could be better prepared for the transition from architecture school into the Internship in Architecture Program (IAP) with additional exposure to the profession during architecture school.

In an effort to further substantiate this feedback, the OAA worked with a third-party research firm to issue a voluntary survey to the OAA membership in fall 2021 on the mentorship experience, as well as their exposure to the profession and the practice of architecture during school. Survey results revealed that licensed and retired members who participated in the survey almost unanimously (95%) agree that students would benefit from additional exposure to the profession while pursuing their architecture degree.ⁱ While it is appreciated that this may be a probable response, the OAA feels further exploration and discussion on this topic is warranted.

In the OAA's survey of members, which included Student Associates, participants were asked to identify how they were exposed to the profession in school. Intern Architects and Student Associates answered the question *"what resources do you feel might contribute to educational experiences and exposures?"* with responses including "Access to Professional Development Opportunities" (31%) and "Active Mentorship by a Professional while in school" (30%). In addition to the third-party research firm issued survey, as a means of further engaging students' participation, and to further this research on understanding exposure to the profession, the OAA issued a voluntary internal survey to OAA Student Associates in early 2022.ⁱⁱ

Although this question of exposure to the practice during architecture school is longstanding, the OAA believes it to be both topical and prudent to consider this question in light of the current climate—both literally and figuratively. The world has experienced such significant changes over the past two years; nearly every facet of life, the environment, education, and

the practice of architecture has been or will be affected. It would be an appropriate time to discuss and debate this important issue of the efficacy of exposure to practice that students receive while in architecture school, as well as it providing a followup to the data and research identified in the 2013 ROAC/CALA surveys.

Analysis

As a means of investigating and framing this issue of whether Canadian students are exposed adequately to the profession while in architecture school, the OAA considered it prudent to review and identify the ways in which the 2017 CACB Conditions and Terms for Accreditation, as well as supporting accreditation resources, articulate exposure to the profession as accreditation criteria.

For example, Section 3.11 - Program Performance Criteria (PPC), PPC 1 Professional Development states, “*The Program must demonstrate its approach to engaging with the profession and exposing students to a breadth of professional opportunities and career paths, including the transition to internship and licensure*” (18).ⁱⁱⁱ Correspondingly, the Student Performance Criteria (SPC) includes *SPC E – Professional Practice, which outlines various ways in which students may have exposure to the practice of architecture whilst in the Program* (22).^{iv} The Five SPCs outlined include:

- E1. The Architectural Profession;
- E2. Ethical and Legal Responsibilities;
- E3. Modes of Practice;
- E4. Professional Contracts; and
- E5. Project Management.

In addition to the 2017 CACB Conditions and Terms for Accreditation, a 2019 “Visiting Team Member Duties and Responsibilities” resource document shared on the CACB website further demonstrates the ways in which exposure to the practice is assessed by the visiting accreditation team. Among a larger list, the document includes the following items team members are expected to observe during an accreditation visit to a program:

- Engages in review of general studies, electives, and related programs;
- Engages in observation of studios, lectures, and seminars;
- Meets with student representatives;
- Meets with alumni and local practitioners;^v

The impetus for citing these primary sources is to illustrate that while students' exposure to the profession is no doubt a requirement for an architecture school's accreditation, there remains a question of how might the *efficacy* of this exposure to the profession be measured and enhanced.

While programs provide examples of exposures to the profession in architecture school to fulfil CACB accreditation criteria requirements, is the efficacy of these exposures measured in order to help ensure a reasonable transition between architecture school and internship and/or licensure? Is it possible that the current method of measuring the exposure to the profession criteria may check a proverbial box and not necessarily assess effectiveness of the exposure itself?

One of the challenges, as was also identified in the OAA's issue paper "*BEComing an Architect: Sustaining Our Future*" (presented at the 2014 CACB Conference) is around "*striking a balance between fostering creativity and exploration while training for professional competency*" (19).^{vi} This balance between theory and practice is one that is also important to consider in light of our current climate.

It should also be noted that since the last CACB National Conference in 2014, and the publication of the 2017 CACB Conditions and Terms for Accreditation, the Canadian architectural regulators have allowed for Student Associates to log up to 760 hours of architectural experience toward the IAP. While this incentivizes Student Associates to gain augmented practical exposure outside of their program's PPCs or SPCs, the OAA has heard anecdotally students may find it easier to locate or access these placements if the initial exposure to practices and practitioners was facilitated by their program—perhaps through the form of a co-operative education program.

Anecdotally, students have said that a professional practice course or seminar that has been dry or uninspiring arguably results in students not retaining much of the information. The OAA suggests that exploration of the means in which the SPC are included in the curriculum is worth further consideration.

Again, anecdotally, those that had more practical opportunities to learn about the profession in school felt that they were better prepared for the transition from architecture school to internship and/or licensure and we would welcome further discussion on this. Some examples of more hands-on practical experience might include:

- a co-operative education program;
- a study abroad program;
- placement in a professional practice;
- working on competitions;

- building a project; and
- being given an opportunity to tour the OAA headquarters, with a lecture by the Registrar, as a means of exposure to the regulatory and licensing body of the profession.

Summary

The OAA's preliminary exploration on the topic of the efficacy of students' exposures and experiences with the practice in architecture school in Canada included anecdotal evidence, surveys, and past research such as the 2013 ROAC/CALA Practice Survey, and revisiting the OAA's 2014 CACB conference issue paper "BEComing an Architect." Based on this data, the OAA feels further discussion on the topic is warranted.

While the OAA understands that "the CACB does not specify the structure and content of education programs, nor the forms of evidence used to satisfy the criteria,"^{vii} it is nevertheless a suggestion that the following three elements should be considered in the context of this CACB National Validation Conference:

1. More practical methods and processes of imparting the curriculum related to the practice of architecture should be explored with a view to increasing the students practical exposure to the profession.
2. Consideration must be given to how the effectiveness of students' exposure to the profession and practice of architecture is measured.
3. If evidence supports that students who have more effective exposure to the practice throughout architecture school (by way of co-ops, for example) are better prepared upon graduation to begin practical training and the IAP, should a mandatory co-op term be considered for inclusion as an additional performance criterion?

ⁱ Ontario Association of Architects, OAA Mentorship Member Survey, 2021 (Stratcom issued).

ⁱⁱ Ontario Association of Architects (OAA) Student Associates Survey, 2022 (Internal survey).

ⁱⁱⁱ Canadian Architectural Certification Board (CACB) 2017 – Conditions and Terms for Accreditation. Accessed <https://cacb.ca/conditions-and-terms-for-accreditation/>

^{iv} *Ibid.*

^v Canadian Architectural Certification Board (CACB) 2019. Visiting Team Members Duties and Responsibilities. Accessed <https://cacb.ca/wp-content/uploads/2021/07/Visiting-Team-Members-Duties-and-Responsibilities-2019.pdf>

^{vi} Ontario Association of Architects (2014). “BEComing an Architect: Sustaining Our Future” as presented by The Interns’ Forum of the Ontario Association of Architects. CACB Conference, April 7, 2014.

^{vii} Canadian Architectural Certification Board (CACB) 2017 – Conditions and Terms for Accreditation, page 11. Accessed <https://cacb.ca/conditions-and-terms-for-accreditation/>



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ISSUE PAPER 16

Adopt Life Cycle Assessment into Canadian Curriculum

Submitted by

**John Leko, Toronto Metropolitan University
(Ryerson)**

CACB CONFERENCE

ISSUE IDENTIFICATION FORM

Name: **John Leko**
Title: **Graduate Student**

Email:
Organization: **Toronto Metropolitan University (formerly Ryerson)**

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Adopt Life Cycle Assessment into Canadian Curriculum</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>The contributions of the built environment on global climate change are widely acknowledged (Architecture 2030, 2018; International Energy Agency, Global Status Report for Buildings and Construction, 2019). Multiple programs and initiatives are emerging to address this issue (see, for example, Architecture 2030, CLF, MEP 2040, SSE2050, CaGBC, BOMA). It is my understanding that, at present, embodied carbon, and life cycle assessment (LCA) are not explicit requirements for Canadian architecture school accreditation. While these topics may be covered in a survey class on ecological impacts of buildings, for instance, they are presented in a cursory fashion with their content dependent on the department curriculum/instructor. Requiring these topic would strongly promote their acceptance to a wider audience, and help disseminate this critical information into the practices which the graduates are hired/interned. The attached paper by Kelly Alvarez Doran from the University of Toronto provides an example of the effects of these concepts on real-world projects/designs.</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>Requirements to perform LCAs are flourishing both nationally, and internationally (e.g., LEED, "Buy Clean" policies, Toronto Green Standard, etc.) and are beginning to be included in building codes, etc.. Accordingly, introductory LCA talks are proliferating in response (Materials Matter seminars, One Click LCA Summer Schools, CLF presentations, for instance). While the general public understands "operational carbon", the concept of "embodied carbon" is foreign. Current academic requirements are not adequately addressing this shortfall. Within Toronto Metropolitan University's Building Science program, for example, the building enclosures class is mandatory while the LCA class is an elective. In accredited architecture programs LCA is not a required subject area. This suggests a structurally diminished subject stature.</p> <p>For greatest impact addressing the climate crisis, it is imperative this information is rapidly presented to as wide an audience as possible in all architecture, engineering, and building science curricula. Perhaps the most expedient method is the adoption of LCA into the Canadian architecture accreditation curriculum.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i></p>	<p>Inclusion of embodied carbon, and life cycle assessment tools in the architecture curriculum will help to give architecture students the skills to better address the urgent climate change agenda and thus make them more relevant to society. It will also empower the architectural profession to achieve the objectives of programs such as Architecture 2030 by rapidly increasing awareness of the effects of buildings on the environment. As the attached paper shows, marked improvements with minimal/no cost impact are possible if designers/architects are aware of the effects of their choices. Emphasizing this topic in the Canadian architectural accreditation curriculum will help to expedite its acceptance in wider practice.</p>

MASS TIMBER THROUGH A LIFE CYCLE LENS

TEXT Kelly Alvarez Doran

In 2020, I led a studio at the University of Toronto’s John H. Daniels Faculty of Architecture, Landscape, and Design that asked: How can we halve the carbon emissions of buildings over the next decade? Our collective research focused on strategies for benchmarking and reducing embodied carbon, using a series of real-life Toronto multi-unit residential buildings as case studies.

Towards Lower-Carbon Materials

The Ha/f Research Studio has since worked to build on this initial research. Working with the City of Toronto’s Green Standards Team and Mantle Development with the support of The Atmospheric Fund (TAF), we are currently developing embodied carbon benchmarks for Part 3 buildings across Ontario. The ongoing study involves stakeholders representing the full spectrum of our industry and included nearly 50 voluntarily submitted project life cycle assessments (LCAs). This intake reveals that LCAs are being conducted across Ontario,

and are being performed throughout the design and construction process. The number of respondents familiar with the tools suggests that the market can support this type of analysis.

As part of the study, the City’s team requested an assessment of two active, City-owned projects to understand their embodied carbon and find potential reductions, and to understand how future policies should align with design phases and existing planning submission milestones. Both projects—the Western North York Community Centre and the Toronto Paramedic Services Multifunctional Paramedic Station—are 2021 Canadian Architect Award recipients, and have had embodied carbon and operational performance as key drivers of their designs from the outset. Working directly with the City’s project managers and the architectural teams, Ha/f produced detailed LCAs and reduction recommendations that targeted material specification changes, given that each project is nearing design completion.

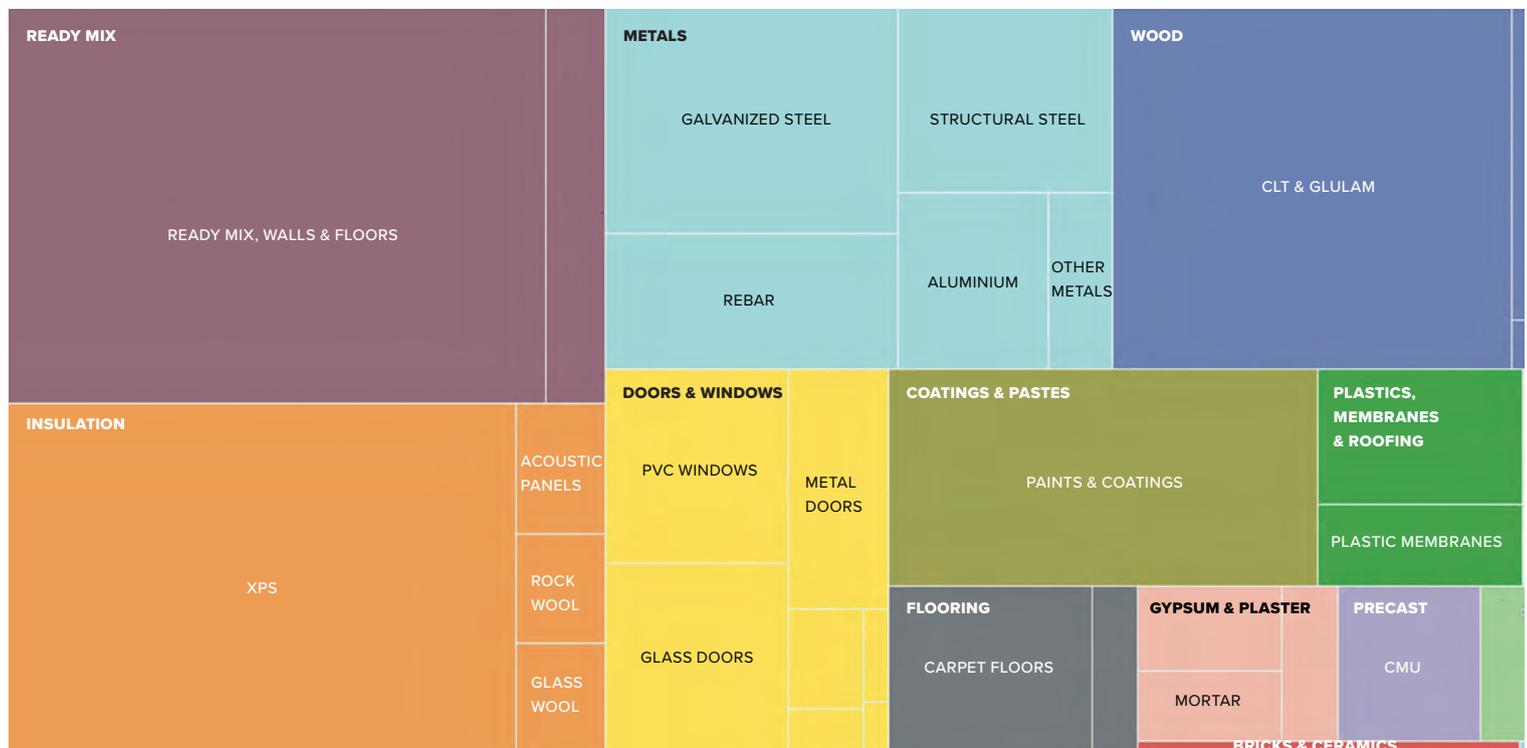


Figure 1: Overview of Proportionate Material Embodied Carbon Emissions, Paramedic Services Multifunctional Paramedic Station

42 TECHNICAL

The Paramedic Services Multifunctional Paramedic Station’s LCA revealed six main sources of upfront emissions that could be improved upon, without requiring significant redesign or additional construction cost (see Figure 1). Given their relative impact, the floor slab insulation, concrete mix, and floor sealant were obvious places to focus. Of note is the project’s CLT roof structure—the use of mass timber has served to reduce the project’s total embodied carbon, resulting in a value of 380 kgCO₂e per m²—a figure on the low end of our benchmarking spectrum.

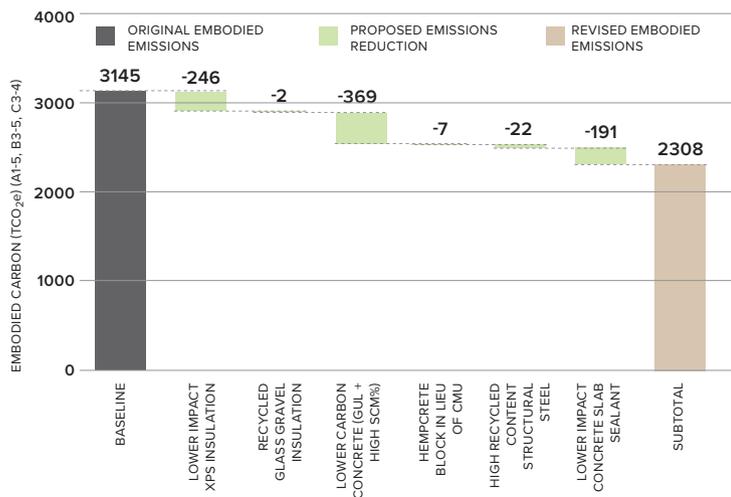


Figure 2: Sequential Carbon Savings Based on Material Substitution

We circled back to the client and architect teams with the suggestions shown in Figure 2. Through straightforward material and specification swaps, the project could avoid upwards of 800 tonnes of CO₂e—or roughly 44 years of Canadian per capita emissions. Following a brief review period, the architects responded that 5 of the 6 changes would be implemented, and that initial costing feedback stated the changes were cost negligible. Forty-four years’ worth of emissions avoided through a two-week study reveals, to me, just how simple the first steps towards the radical reductions required of us are, and that substantial reductions are immediately achievable through existing, readily available options.

Mass Timber and the Impact of Biogenic Carbon Sequestration

Building further on last year’s studio, I wanted to broaden Ha/f’s understanding of embodied carbon in contemporary construction through a focus on the “it” material for carbon reductions: mass timber.

Given the surge in attention that mass timber has received, this year’s students took on case studies to better understand the promise—and limitations—of this family of materials. How does the embodied carbon footprint of mass timber buildings compare to the largely concrete structures of the previous year’s studio, which averaged 505 kgCO₂e/m²? To expand this question across geographies, we assessed the structure, envelope and finishes of mass timber projects from Sweden, the UK, Ontario, Washington, and Oregon, engaging many of the world’s leading mass timber architects in the process.

Initially, the carbon advantages of mass timber were not as evident as expected. This year’s research study set averaged 443 kgCO₂e/m² for new construction, or roughly 90% of last year’s study set. A caveat for this comparison is that the mass timber projects from this year’s study are largely commercial uses, and as a result have far less internal walling, which serves to reduce their totals in comparison to last year’s multi-unit residential buildings. Ultimately, the embodied emissions associated with the extraction, manufacturing, erection, occupation, and ultimately disposal of either building stock are near equal.

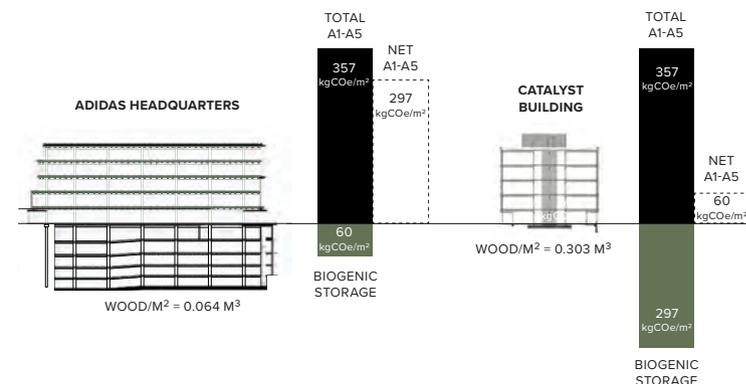


Figure 4: Total embodied carbon and biogenic storage for the Adidas Headquarters (Level Architects) and the Catalyst Building (Michael Green Architects).

However, if carbon storage via biogenic sequestration is taken into account, the net average drops dramatically to 192 kgCO₂e/m²—roughly 40% of typical construction. There is currently a lot of debate about how best to account (or whether to account at all) for carbon storage in LCA reporting, due in large part to the complexities of forestry practices around the world, and the unknowns of a building’s ultimate service life. Our studio visited local operations to better understand the seedling-

STUDY SCOPE	PROJECT	LOCATION	FLOORS	ALL VALUES EXPRESSED IN KGCO ₂ E/M ² OF USEABLE FLOOR AREA				
				PRODUCT STAGE A1-A3	CONSTRUCTION STAGE A4-5	UPFRONT EMBODIED CARBON A1-5	WHOLE LIFE EMBODIED CARBON A-C	BIOGENIC CARBON STORAGE
FULL BUILDING	MAGASIN X	UPPSALA, SE	G+6	199	20	219	335	229
	SARA CULTURAL CENTRE TOTAL	SKELLEFTEA, SE	G+20	313	39	352	495	256
	WARWICK MEDICAL SCHOOL*	WARWICK, UK	G+4	580	31	611	660	65
	BLACK & WHITE	LONDON, UK	G+5	282	32	313	378	273
	ONTARIO SECONDARY TEACHERS	TORONTO, CAN	G+3	383	48	431	460	124
	80 ATLANTIC	TORONTO, CAN	G+4	346	57	403	460	138
	TRCA HEADQUARTERS	TORONTO, CAN	G+3	234	61	296	347	283
	ADIDAS HEADQUARTER TOTAL	PORTLAND, USA	G+4	342	16	357	383	60
	CATALYST BUILDING	SPOKANE, USA	G+4	312	45	357	472	297
TOWER COMPONENT	ACADEMIC WOOD TOWER**	TORONTO, CAN	13	405	36	469	529	265
	SARA CULTURAL TOWER	SKELLEFTEA, SE	15	407	47	456	655	316
SUMMARY	AVERAGE FULL BUILDING			332	39	371	443	192
	AVERAGE TOWER COMPONENT			406	42	463	592	290

*HYBRID STRUCTURE: 1/3 MASS TIMBER, 2/3 PRE-CAST RC ** TOWER BUILT UPON PRE-EXISTING FOUNDATION

Figure 3: Summary Results of Studio Case Studies

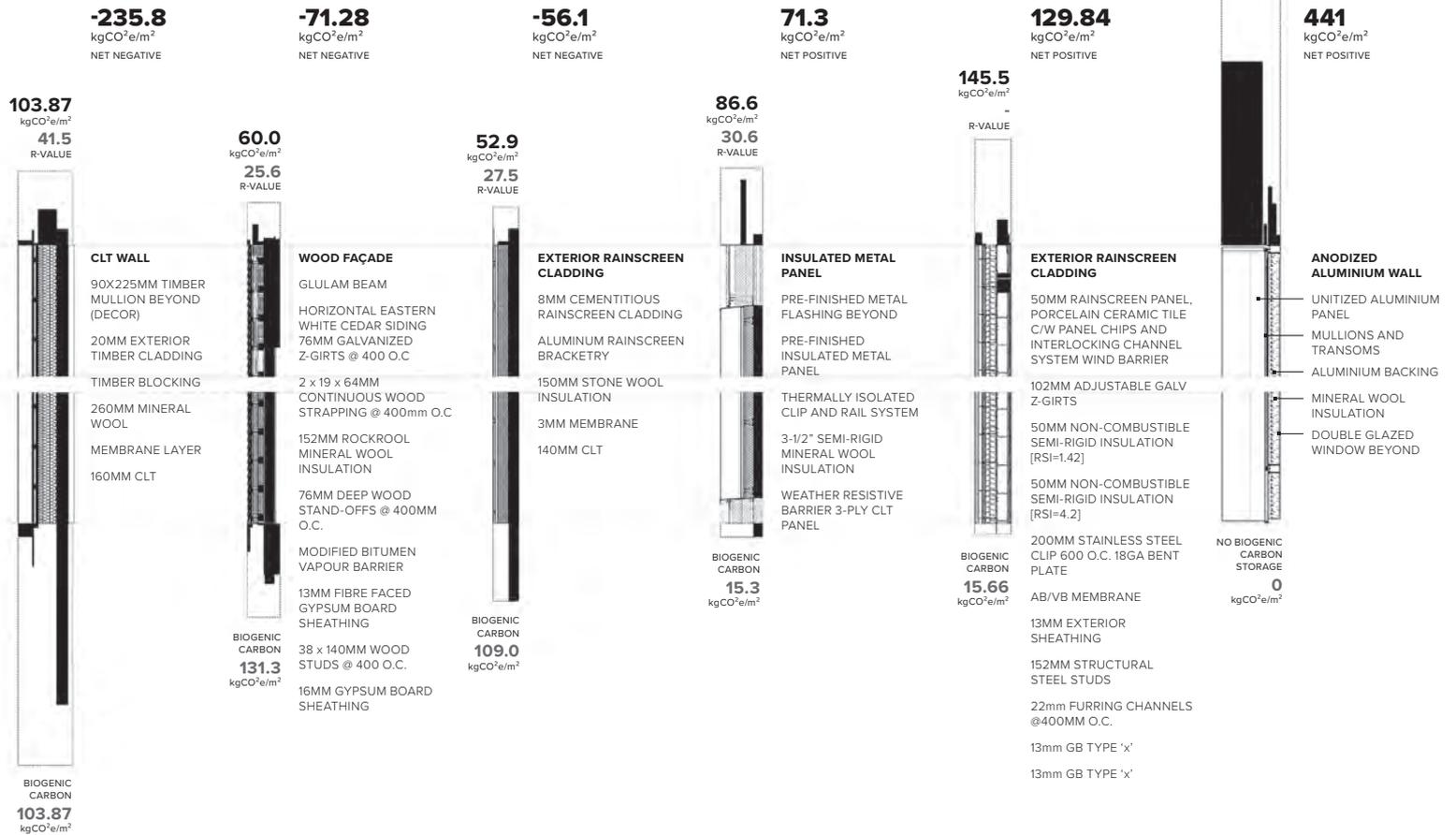


Figure 5: Wall sections of case studies illustrating R-value, embodied carbon, and biogenic sequestration.

to-sawmill process. This experience prompted the students to investigate the sources of timber across the range of projects, an exercise that enabled a greater appreciation for the impacts of forestry at-large, and a keener sense of the challenges related to the lack of reliable data.

Overall, it became clear that responsibly sourced wood, when accounting for bio-sequestration, can be a low-carbon solution for structure, envelope, and interior finishes. Beyond wood, the re-emergence of less processed, organically based materials also offers promising carbon-storing options for structure, envelope, and finishes.

Envelopes: Embodied Carbon Meets Thermal Performance

Focusing on envelopes, this year’s case studies stood in stark contrast to the highly emissive, thermally low-performing, aluminium-based unitized glazing systems of the multi-residential buildings that we examined last year. The envelopes of this year’s study reveal substantial upfront and operational emission reductions achieved by (a) reducing window-to-wall ratios, and (b) incorporating mass timber into the façades themselves. These savings are further amplified by a whole-life carbon assessment, given the comparatively short lifespan of the unitized systems. Envelopes that achieve high R-values and also serve as carbon sinks offer our profession a promising direction of travel.

Geography Matters with Mass Timber

In comparison to other materials, the provenance of mass timber has significant and disproportionate impacts on the resulting global warm-

ing potential (GWP). Where mass timber supply and manufacturing was regionally abundant, the footprint of the timber was roughly 10-15% less than in projects where the engineered material was sourced trans-continentially or internationally. Of the four Toronto mass timber projects, only one used wood sourced in the province of Ontario, while all CLT and glulam elements were still imported from either European or western North American sources.

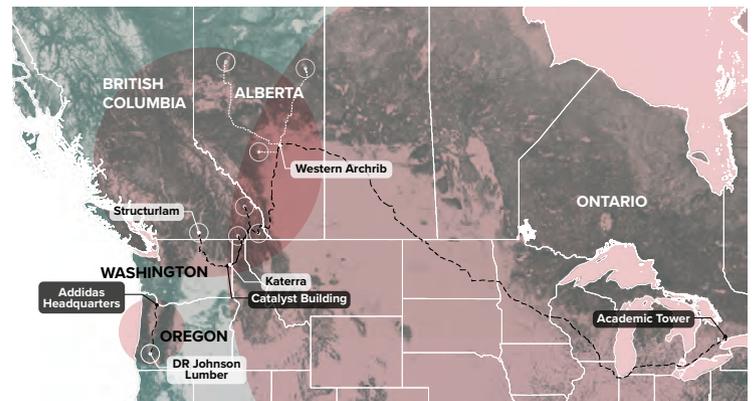


Figure 6a: Comparative provenance of mass timber for the Academic Tall Wood Tower, the Catalyst Building, and the Adidas Headquarters.

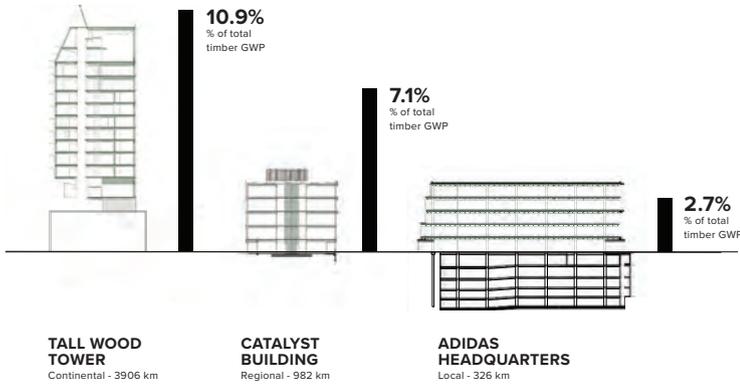


Figure 6b: The proportion of embodied carbon that life cycle stage A4 (transportation) has relative to mass timber total embodied carbon.

Beyond the impact of continental transportation, the location of processing is a significant factor in how emissive one product is relative to another. As a result, industry-wide generic Environmental Product Declarations (EPDs) can be significantly different to manufacturer-specific EPDs for the same product class. A close examination of EPDs early in a project’s development can help ensure the eventual sourcing of timber that is sustainable, low-impact, and importantly, available. In the case of the Catalyst Building, we had two LCAs to compare: one conducted by the Carbon Leadership Forum in 2019 and ours in 2022. The delta between generic data and that of the eventual supplier resulted in a 40% increase of the project’s total embodied carbon. Variations between manufacturer emissions relate in large part to the carbon intensity of the power grids that their facilities sit upon. A sawmill in Alberta emits roughly eight times that of one in Washington State; as a result, a tree cut in BC feeding into either mill would carry much higher embodied carbon if cut and dried in Alberta. Geography matters.

EPD Source	Product Description	Quantity	TCO _{2e}	% of Generic
CLT - Generic	475.55 kg/m ³	100 m ³	30	
CLT - Manufacturer A	410.5 kg/m ³	100 m ³	59	197%
CLT - Manufacturer B	481 kg/m ³ , 12% moisture content	100 m ³	69	230%
GLT - Generic	548 kg/m ³ , 14% moisture content	100 m ³	17	
GLT - Manufacturer C	489 kg/m ³ , 12% moisture content	100 m ³	29	171%
GLT - Manufacturer D	544 kg/m ³ , 12% moisture content	100 m ³	64	376%

Figure 7: Comparative EPDs for mass timber manufacturers across Canada.

A Whole-Life Carbon Perspective

Finally, the benefits of mass timber are most significant if we are able to take a whole-life carbon perspective that accounts for upfront material emissions, reduced life-cycle operational emissions, and future disassembly and reuse of structural materials. Marrying the reductions afforded by mass timber’s biogenic storage capacity with high-performing, low-GWP façade systems can result in buildings with significantly reduced footprints upfront, as well as over the life of the project. Whether or not we build in mass timber, we need to take a whole-life carbon view to ensure decisions made to reduce operational emissions are not resulting in significant, unintended upfront emissions.

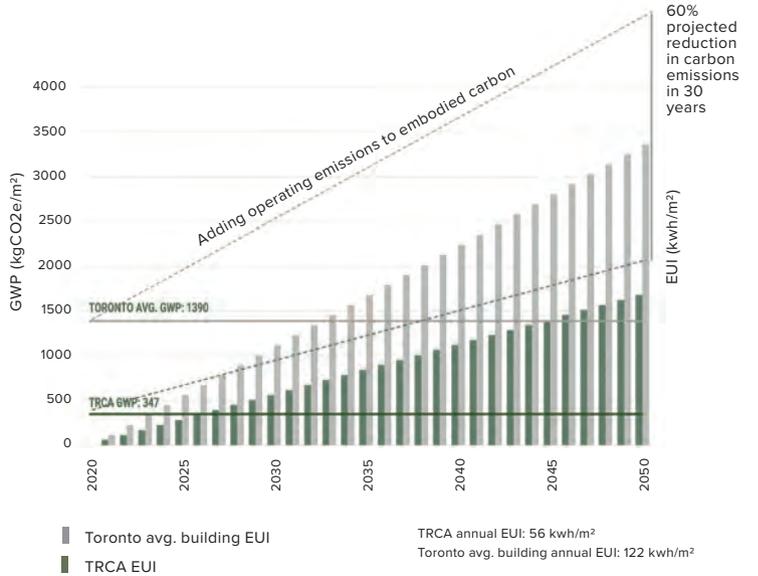


Figure 8: A 30-year comparison of the TRCA’s projected embodied carbon and operational emissions in comparison with an industry average office building. Model simulations predict a 50% reduction in operating emissions, and over 60% reduction in whole life embodied carbon when compared to the typical Toronto commercial building.

“Any further delay in concerted global action will miss a brief and rapidly closing window to secure a liveable future.” —Hans-Otto Pörtner, co-chair of IPCC working group 2, February 28, 2022.

The time is now. Our entire industry needs to adopt a whole-life approach to the buildings we design. We need to address the magnitude of emissions associated with our daily design and specification decisions. As evident in the examples above, a short investigation into a material class’s provenance could result in the avoidance of several lifetimes’ equivalent of emissions.

Canadian architects, engineers, and planners have a disproportionate responsibility when it comes to addressing climate change, and only by taking a whole life view will we be able to balance reductions in operational emissions with reductions in embodied carbon emissions.

We are here to support your practice, institution, or municipality to take this on. We look forward to discussing this research and its findings with you, at your request. ●▲

The Ha/f Research Studio was conducted at the John H. Daniels Faculty of Architecture, Landscape, and Design. It was led by Adjunct Professor Kelly Alvarez Doran, co-founder of Ha/f Climate Design, and Senior Director of Sustainability and Regenerative Design at MASS Design Group.

The project team included graduate students Saqib Mansoor, Bahia Marks, Robert Raynor, Shimin Huang, Jue Wang, Rashmi Sirkar, Ophelia Lau, Huda Alkhatib, Clara Ziada and Natalia Enriquez Goyes.

Project partners from the architectural community included White Arkitekter, Waugh Thistleton, Hawkins/Brown, Lever Architects, Michael Green Architects, Bucholz McEvoy Architects, ZAS, MJMA, Patkau Architects, BDP Quadrangle, and Moriyama & Teshima Architects.



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ISSUE PAPER 17

The Future of Architecture Practice

Submitted by

**Hajara Hameed, Toronto Metropolitan University
(Ryerson)**

CACB CONFERENCE**ISSUE IDENTIFICATION FORM****Name:**.....**Email:**.....**Title:**.....**Organization:**.....

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, "label" the issue</i>	
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	
Context <i>Provide details of the background that give rise to this issue</i>	
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	



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ISSUE PAPER 18

Equity, Diversity, Inclusion and Anti-Racism

Submitted by

**Lisa Landrum, on behalf of the
CAFÉ Capital Steering Group**

#8

COMPLETE

Page 1:

Q1

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Q5

Name of Issue (in 5 or 6 words, "label" the issue):

Equity, Diversity, Inclusion and anti-racism

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

How are the academic and professional sectors centring social justice in their practices, processes and strategic priorities? What strategies for critical self-reflection and transformative change are in progress? How are student-led initiatives, institutional mandates, and creative teaching and research impacting architectural education? How are educational and professional sectors sharing best practices and collaborating to create a more inclusive built environment and a more diverse next-generation of citizen advocate-architects? And how are EDI initiatives impacting accreditation and certification standards?

Q7

Context (provide details of the background that give rise to this issue):

One of the key take-aways from the 2019-2020 CAFÉ series was the need for meaningful community engagement and the corresponding potential to engage architecture as a tool for social justice. Since summer 2020, schools of architecture have been confronting new challenges exposed by the pandemic, the murder of George Floyd, confirmation of unmarked graves at former residential school sites, and the long overdue admission of systemic racism and elitism in architectural education and practice.

In response to these questions and challenges – and building on the success of the 2019-2020 Canadian Architecture Forums on Education (CAFÉ) – the CAFÉ Capital series was launched in 2022. This pan-Canadian series of events aims to Assess, Bridge, Converse and Deliver on Diversity, Equity, Inclusion and Anti-racism in architectural teaching & learning; research & practice; service & engagement. Three May workshops are helping to frame an in-person forum planned for September 2022 in Ottawa. Conversations and outcomes of which will inform perspectives of CCUSA and student delegates at the October 2022 CACB conference, and help orient EDI initiatives at the schools. <https://architecturecanada.ca/schedule/>

The CAFÉ series is empowering student groups and leveraging national connectivity with new forms of assembly and calls to action aimed at diversifying and indigenizing architectural pedagogies and removing institutional barriers. In Canada, student activism is being led by groups at every school, including: Equality in Architecture (UDalhousie); Race + Space (McGill); Diversity Working Group (CarletonU); Bridge, and Treaty Lands Global Stories (UWaterloo); the Indigenous Design and Planning Student Association and SAS Beyond Borders (UManitoba); Advocates for Equitable Design Education (UCalgary); UBC Nomads For a Feminist Architecture (UBC).

Further context is provided by related ACSA initiatives and resources:
<https://www.acsa-arch.org/resources/equity-diversity-and-inclusion/>

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

Social justice is linked to climate justice and to inclusivity in the built environment. EDI is increasingly central to institutional mandates, but only slowly entering architectural education and practice. CCUSA schools have begun working to address issues of justice and equity in various facets of architectural education, from school culture and curriculum, through to recruitment and admissions processes. Practices need to be shared and inform future goals. Sharing take-aways from the CAFÉ Capital series will help build equity in architectural education and practice.



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ISSUE PAPER 19

Is Architectural Pedagogy Mobilizing Towards Climate Action?

Submitted by

Jessie Andjelic, SPECTACLE

#9

COMPLETE

Page 1:

Q1

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Architect, Founding Partner

Q4

Organization

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Q5

Name of Issue (in 5 or 6 words, "label" the issue):

Is architectural pedagogy mobilizing towards climate action?

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

As Greta Thunberg notes, 'everything needs to change; and it has to start today.' Given that buildings contribute approximately 40% of global GHG's, there is an undeniable responsibility for architects to urgently and meaningfully contribute to climate actions that slow and stop emissions.

However, within architectural culture, climate action has somewhat narrowly been relegated to the engineering of sustainable buildings. There is a vast array of design approaches to sustainable buildings including biomimicry, rehabilitation and retrofitting, the use of timber, and the incorporation of net-zero and carbon-neutral building standards. Seemingly less explored are fundamental, philosophical questions about the relationship between the constructed / artificial and natural environments and whether sustainability is core to the discipline or a specialized subset.

Given the theme of the 2022 Conference 'Architecture Continuum: Collaborate, Educate, Integrate,' several implications arise including:

1. How should architectural education address equitable climate action?
2. How has architectural education responded to the climate crisis so far? How do the various school programs, including offering of courses and expertise of instructors reflect a commitment to equitable climate action?
3. Do the Student Performance Criteria (SPC) go far enough in addressing equitable climate action

Q7

Context (provide details of the background that give rise to this issue):

Capitalism, as an economic system, pushes towards infinite growth, expansion, and progress. Within this system, architects have been celebrated as makers of new things, structures, and buildings. Globalization, the rise of modern architecture, and the concept of tabula rasa created a culture in Western society where the vision of an architect could quite easily overwhelm the quiet knowledge of an existing site, the selection of readily available industrial products over local building materials, and a lack of equitable processes / forms of engagement within the communities these projects were located. While watershed events in the last years have made equity and justice central topics within civic discourse, the colonial legacy of Manifest Destiny remains a part of our history. Architecture, a profession both complicit within, and (as one interested in the common and public good) at odds with, a capitalist system, must deal with how to better steward and contribute to a thriving global world.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

While climate change has been an ongoing issue and on the radar of architects for decades, it's urgency and importance are being highlighted by severe weather events, activism, the development of emissions targets, increasingly aggressive commitments by world leaders, and etcetera. Beginning with the murder of George Floyd and continuing through the COVID-19 pandemic, additional systemic inequities (racial, wealth, etc.) have come to light. There is evidence that work that improves the quality of the earth is generally better for all people as well; social equity and positive climate action go hand in hand.

Emerging out of the COVID-19 pandemic, 2022 is an opportunity for change; an opportunity to rethink our relationship and responsibility to the earth. As noted by Robin Wall Kimmerer, author of *Braiding Sweetgrass*, 'not only does the earth sustain us but we have the capacity and responsibility to sustain her in return' in a relationship of 'mutual flourishing.'



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ISSUE PAPER 20

RAIC Climate Action Engagement and Enablement Plan

Submitted by

**Giovanna Boniface, on behalf of the
RAIC Climate Action Steering Committee**

#10

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Name of Issue (in 5 or 6 words, "label" the issue):

RAIC Climate Action Engagement and Enablement Plan

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

With a renewed strategic plan, mission, and vision, the RAIC has prioritized Climate Action Plan activities (including but not limited to development, engagement, and implementation) for 2022 through 2024. At its core, the climate crisis is a human problem. The need for climate action and the necessary technology have long been identified and available. To drive change, the CAP will encompass a suite of communications and convening activities to accelerate the scale and pace of progress for design and construction for human, climate, and ecological health. This work is led by a CAEEP steering committee.

The RAIC is enabling a national dialogue on accelerating design and construction for human, climate and ecological health.

Guiding Principles

1. Embed reconciliation in the approach
2. Embed social justice in the approach
3. Adopt an ecological model of climate action communication in the engagement approach
4. Employ a participatory and deliberative process
5. Employ best practices in climate change communications: frame for hope and empowerment
6. Focus on holistic health: human health, climate system health, ecological system health
7. Embrace a multi-sectoral approach
8. Be regionally informed and internationally aligned

The CAEEP-SC has convened three working groups to support the overall scope of the committee including, information gathering, consultation, synthesis, engagement and implementation. To accelerate the transition to design and construction for human, climate and ecological health the working groups are organized around three main areas of focus. The three areas include education, practice and advocacy.

Q7

Context (provide details of the background that give rise to this issue):

At its core, the climate crisis is a human problem. The need for climate action and the necessary technology have long been identified and available. To drive change, the CAP will encompass a suite of communications and convening activities to accelerate the scale and pace of progress for design and construction for human, climate, and ecological health. To accelerate the transition to design and construction for human, climate and ecological health the working groups are organized around three main areas of focus. The three areas include education, practice and advocacy.

The purpose of presenting at CACB would be to report out on the work of the CAEEP, and specifically the Education working group.

Goal: To develop the competency pathways (knowledge, skills and abilities) for climate action leadership across the full life cycle of learning for students, intern architects, licensed architects and unlicensed practitioners. Recognizing the interconnected climate and ecological system emergencies, promote mandatory competencies at all levels.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

The urgency related to the climate crisis and role for architects in mitigation and adaptation. We need to accelerate the scale and pace of progress. Climate action is consistently identified as a top issue that matters, not only by the RAIC community but also Canadians and beyond.



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ISSUE PAPER 21

**Transdisciplinarity: Challenges and Opportunities Incorporating
Disciplines' Tools and Skills in the Design Curriculum**

Submitted by

**Mercedes Garcia-Holguera, University of
Manitoba**

#11

COMPLETE

Page 1:

Q1

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Q2

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Q4

Organization

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Q5

Name of Issue (in 5 or 6 words, "label" the issue):

Transdisciplinarity: Challenges and opportunities incorporating disciplines' tools and skills in the design curriculum.

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

Transdisciplinarity in Architecture and design related fields is welcomed and encouraged as a means to enrich and expand qualitative and quantitative aspects of our domain. To a certain degree we are comfortable interacting with engineering and social sciences, but we have less experience integrating natural sciences disciplines in our research, teaching and practice. In particular, a growing interest in biological systems, their processes and functions, is resulting into a whole new array of design related sub-disciplines such as biomimetic design, biophilic design, biomimicry, biologically inspired design or bio-based and synthetic materials exploration, for example.

Benefits of transdisciplinary collaboration between biology and design include among other a larger database of design precedents to learn from, increased systemic thinking, or higher levels of innovation when addressing design questions. However, bringing lessons learned from Nature to our curriculum also presents us with important challenges that range between our inadequate theoretical background to our limited skills working in wet labs. Addressing these challenges and embracing the opportunities that transdisciplinary design offers can augment our capacity to collaborate and integrate foreign voices and ideas.

Q7

Context (provide details of the background that give rise to this issue):

During the last two decades there has been an exponential increase in publications, research, and courses that include biological inspiration as a methodology for advancing architectural design. This increased interest has translated, in some cases, in the development of University degrees and topic courses, the creation of transdisciplinary research laboratories, and the establishment of professional collaborations between biologists and architects.

Nonetheless, these examples are still exceptions that show us how challenging it is to push the boundaries of our discipline. Teaching and research initiatives that include transdisciplinary methods and tools illustrate some of these challenges. For example, on the teaching front, a steep learning curve tends to characterize studio and lecture courses where students must adapt quickly to new terminology and scientific methods. Courses that include instructors from several disciplines are better valued by participants, but this option is not available in all cases, which tends to result in more superficial exercises. Research wise, transdisciplinarity requires considerable time and effort to develop a network of collaborators from outside the home department. In addition, access to specific digital tools and equipment requires extra training, represents important expenditures, and can limit research progress.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

-Transdisciplinary bio-inspired design offers an opportunity to tap into an enormous source of creativity and innovation in architecture. Other disciplines (e.g. Medicine, Engineering) have already established spaces that facilitate these forms of collaboration through their programs or research labs.

-Transdisciplinarity can help us educate designers that are better prepared to face uncertainty and complex problems related to the changing climate.

-If we understand transdisciplinarity as an opportunity to advance our discipline, then we need to find ways that allow our institutions and professional bodies to support these initiatives.



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ISSUE PAPER 22

Community Volunteering in Intern Experience Hours?

Submitted by

Justin Hung, University of Toronto

CACB CONFERENCE**ISSUE IDENTIFICATION FORM**

Name: Justin Hung

Email:

Title: Student

Organization: University of Toronto

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Name of Issue <i>In 5 or 6 words, "label" the issue</i>	Community Volunteering in Intern Experience Hours?
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	Should/could community volunteering hours be added to the required internship experience hours needed to become a licensed architect? As I went to high-school in Ontario where all high school students must complete 40 hours of community service to graduate, I wonder whether 40 hours of community service to match this Ontario standard could be a positive move to help strengthen and build positive relationships between architects and communities?
Context <i>Provide details of the background that give rise to this issue</i>	The idea of this Issue came about during CAFE's "Service & Engagement" workshop this May (CAFE - Canadian Architecture Forums on Education). I joined Chris Baziw's Zoom-breakout-room after his presentation "Volunteerism, Homelessness, Architecture Practice/Education" of his incredible thesis work at Laurentian University. Chris' conversation with Kai Wood Mah brought the topic of licensure to the table which triggered me to ask in the room the question I am now presenting in the Issue Description above. Ted Landrum asked how many hours I thought should be required, and I responded that 40 hours could be a place to start. Brian Rex, Jake Chakasim, Cole Marotta, and Izabel Amaral were all in the breakout-room as well. Izabel Amaral presented the idea to the rest of the workshop when we returned to the main Zoom-room for the workshop.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	As some seem to feel that architects are too detached from their communities, could required community volunteering hours to become a licensed architect address this concern?



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ISSUE PAPER 23

More Architecture Schools? Why / why not?

Submitted by

Justin Hung, University of Toronto

CACB CONFERENCE**ISSUE IDENTIFICATION FORM**

Name: Justin Hung

Email:

Title: Student

Organization: University of Toronto

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, "label" the issue</i>	More Architecture Schools? Why / why not?
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	Will there ever be a time where (almost) every university in Canada has an architecture school? ...and why? What do/will different answers to these questions mean about climate change?
Context <i>Provide details of the background that give rise to this issue</i>	<p>Does Canada currently have the right amount of architecture school? Also, which regions/groups in Canada are currently working towards / asking for a new school? I'd like to have more conversations about these questions and have begun to raise them with those around me...</p> <p>In my entry to ClimateCurriculum.ca's student poster competition (attached) earlier this year, I addressed these questions to ClimateCurriculum.ca, the CCUSA, the ROAC, Rise for Architecture, the RAIC, and everyone at/interested-in Canadian universities. I wasn't sure whether I should have explicitly included the CACB... Sharing now! I'd like to and need learn more about the relationships between the groups...</p> <p>Also, in addition to climate change, what do different answers to the question of more architecture schools mean about universities, governments, social relationships, love, and the future of architecture?</p>
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	I believe in the power of architecture and architecture schools to positively transform our lives and our surroundings, locally and abroad. Could more architecture schools be a big part of solutions to so many of the problems society faces?

More Architecture Schools?

Dear ClimateCurriculum.ca, CCUSA, R0AC, Rise for Architecture, RAIC, and everyone at/interested-in Canadian universities

Will there ever be a
time where (almost)
every university
in Canada has an
architecture school?

...and why?

What do/will different answers to these
questions mean about climate change?

LIST OF PUBLIC UNIVERSITIES IN CANADA:

ALBERTA:

Alberta University of the Arts, Athabasca University, MacEwan University, Mount Royal University, University of Alberta, University of Calgary, University of Lethbridge

BRITISH COLUMBIA:

Capilano University, Emily Carr University of Art and Design, Kwantlen Polytechnic University, Royal Roads University, Simon Fraser University, Thompson Rivers University, University of British Columbia, University of Victoria, University of the Fraser Valley, University of Northern British Columbia, Vancouver Island University

MANITOBA:

Brandon University, University College of the North, University of Manitoba, Université de Saint-Boniface, University of Winnipeg

NEW BRUNSWICK:

Mount Allison University, St. Thomas University, University of New Brunswick, Université de Moncton

NEWFOUNDLAND AND LABRADOR:

Memorial University of Newfoundland

NOVA SCOTIA:

Acadia University, Cape Breton University, Dalhousie University, Mount Saint Vincent University, Nova Scotia College of Art and Design University, Saint Francis Xavier University, Saint Mary's University, Université Sainte-Anne, University of King's College

ONTARIO:

Algoma University, Brock University, Carleton University, Lakehead University, Laurentian University / Université Laurentienne, McMaster University, Nipissing University, Ontario College of Art and Design University, Queen's University at Kingston, Royal Military College of Canada / Collège militaire royal du Canada, Toronto Metropolitan University, Trent University, Université de Hearst, Université de l'Ontario français, Université de Sudbury, University of Guelph, Ontario Tech University, University of Ottawa / Université d'Ottawa, University of Toronto, University of Waterloo, University of Western Ontario, University of Windsor, Wilfrid Laurier University, York University

PRINCE EDWARD ISLAND:

University of Prince Edward Island

QUEBEC:

Bishop's University, Concordia University, École de technologie supérieure, École nationale d'administration publique, Institut national de la recherche scientifique, McGill University, Université de Montréal, Université de Sherbrooke, Université du Québec en Abitibi-Témiscamingue, Université du Québec en Outaouais, Université du Québec à Chicoutimi, Université du Québec à Montréal, Université du Québec à Rimouski, Université du Québec à Trois-Rivières, Université Laval

SASKATCHEWAN:

University of Regina, University of Saskatchewan

YUKON:

Yukon University

LIST OF PRIVATE UNIVERSITIES IN CANADA:

Ambrose University, Booth University College, Burman University, Canadian Mennonite University, Concordia University of Edmonton, Crandall University, Kingswood University, Pacific Coast University for Workplace Health Sciences, Providence University College and Theological Seminary, Quest University, Redeemer University College, St. Mary's University, Calgary, St. Stephen's University, The King's University, Trinity Western University, Tyndale University, University Canada West, University of Fredericton, Yorkville University



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ISSUE PAPER 24

Transition from Architectural Student to Intern Architect

Submitted by

Nitya Gupta, University of Calgary

#12

COMPLETE

Page 1:

Q1

Name

Nitya Gupta

Q2

Email

Q3

Job title

Student

Q4

Organization

University of Calgary

Q5

Name of Issue (in 5 or 6 words, "label" the issue):

Transition from Architectural Student to Intern Architect

Q6

Issue Description (in a paragraph or two, describe the issue more fully):

Having experienced architecture both in India and Canada, as a student and as an intern, I can say that there is a big shift from being a student to being an intern. Almost all architectural firms design buildings based on a set of rules and guidelines which leave no room for creativity for a fresh graduate who is ready to explore the world and discover his own style and idiom in the world. By looking at our history, we can learn from the architectural marvels around us. Architects in the past have left some great examples for us, but what are we leaving for our future generations to look upon? Just concrete jungles? I feel this issue can be resolved by collaboration between educators and practitioners to find effective ways to bridge the gap.

Another one of my concerns is that most of the architecture students are unaware of what their future holds. Will they be able to secure a job or not after graduation is a question that disturbs many students including me. Only if there was a concept of campus placements in architecture schools, it would have made the life of students more stable. If the architectural firms hired to-be-graduating students in their last term of education, it could ensure a smooth transition from education to real life.

Q7

Context (provide details of the background that give rise to this issue):

Most people can argue that an "Architectural Education" is the best the way it is. But I believe there is always room for improvement or better decision-making. I recently completed my Foundation Year in Master of Architecture program with a good GPA of 3.9 and currently working as a Graduate Research Assistant at the Laboratory of Integrative Design in collaboration with DIALOG and Ferguson in Calgary. After the completion of a Bachelor's degree in architecture and experiencing the Master's program along with a summer internship I feel I have the experience to talk on various topics that need to be addressed in the field.

After the completion of my Bachelor's degree in India, I was excited to start my new journey as an architect, but I saw myself lose confidence when I was not able to secure a job in a firm just because they wanted to hire someone with more experience. How do they expect me to have an experience if none of the firms ever hire me because I am a fresh graduate? When I was able to find a job, the work done at firms was so much different from what is taught in architectural schools. I am having a similar experience in my Master's degree.

As a Foundation Year student, I have developed my own language and approach towards design problems and my perspective has always been unique and well appreciated. But when I started my summer internship and became aware of how architecture works in real life, I find it different from what is taught in school in many ways; hence, architecture education should make more room for hands-on experience on real-life projects.

Q8

Relevance (in a few sentences, state why this issue is important and should be discussed at the 2022 Conference):

As the percentage increase in students taking architecture as a career is only rising, I believe it is important to discuss the relevance of architecture in the future. Architecture education is comprehensive and they need to be prepared on all levels for what is coming next. It is only possible with the collaboration between educators and practitioners to bridge the gap between the same.



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ISSUE PAPER 25

Architect Mentors Within the Academic Environment

Submitted by

**Gordon Richards, Jensen Hughes Engineering and
Architectural Consulting Ltd.**

White Paper
2014 CACB Validation Conference
Gord Richards Architect AIBC FRAIC
30 May 2022

Architect Mentors Within the Academic Environment

The Validation Conference will be concerned with the Conditions Accreditation of Canadian Schools of Architecture, including the Student Performance Criteria (SPCs), and will likely be reviewing the Canadian Intern Architect Program (IAP) as well. Both are worthy subjects for investigation and discussion. This paper proposes that we also look at another piece of the puzzle.

In 2009, the CACB (as directed by the regulators) began the automatic certification program for accredited Canadian professional degree programs. Since that time, the number of domestic certifications issued has doubled. What this shows is that possibly, almost 50% of Canadian graduates in architecture never enter a Canadian intern program. Additionally, many of our intern architects never take the next step to registration. For example, in BC, in any given year 9% or 10% of the intern pool moves forward to registration. .

Architects Within the Academic Environment

In the 1950s and 1960s, many faculty members in schools of architecture were architects. This was at least partly because at that time it was easy to gain licensure once one had a professional degree. Beginning in the mid-1970s, the requirements for licensure became more and more prescriptive and onerous, for legitimate reasons. Enrollment in an intern program was a requirement of the process, and specific amounts of detailed areas of experience and examinations were required. In the Last decade the development if the ExAC exam and modifications to the intern program have modified these conditions somewhat, but the program is still rigorous and detailed.

When an individual is hired into the faculty of a school of architecture, and begins to teach full time, there is very limited time available for that individual to work under the supervision of an architect and engage in the intern program. As a consequence, registered architects are a distinct minority among full time faculty members. This is true all across North America.

Mentors Within the Academic Environment

The relationship between a student of architecture and a strong and creative faculty member can be the most influential element of a student's experience. This relationship can be deep and profound in ways that are not immediately obvious except for certain superficial clues. Many people have observed students mimicking the speech patterns, dress, or gestures of a respected teacher. This is an outward symptom of a deeper and partly subconscious leaning process whereby the student begins to model themselves and their aspirations at least to a degree on the impressive aspects of the mentor. When that mentor is a registered architect, that fact connects with the student's model of themselves in the future. When that mentor is not a registered architect, then registration might then be less present in the student's internal model of their future self.

Rates of registration for interns were significantly higher in the 1970s and 1980s than is the case today. A significant factor in this is a result of increasing requirements in the intern program. However I believe that as a contributing element, it is also a reflection of the simultaneous drop in numbers of registered architects teaching in the schools.

How could we increase the number of registered architects teaching in schools of architecture?

One of the NAAB validation conferences proposed that the conditions for accreditation require faculties to have 60% representation of registered architects. This approach was found to be impossible to impose, and I would not recommend it for Canada. If the phenomenon described in

this paper is a significant issue, then the initiative to solve it must come from the regulators. It is in the regulators' best interest that significant numbers of teaching faculty be registered architects, therefore the regulators should provide a bridge to encourage faculty members to get registered. There are three broad strategies that could be employed to this end:

1. Assessment of Competence

Some faculty members have had sufficient experience in practice under various circumstances to be able to demonstrate competence. The regulators could develop a program for assessment of these individuals similar to the BEFA program. The Canadian Competence Standard, and the protocol for assessment have already been developed, and a set of eligibility criteria could be developed relatively easily.

2. Alternate Paths to gain competence

Many faculty members have the professional degree in architecture, and understand "Big A" Architecture to a degree that many practicing architects do not. However, some of these individuals do not have the practical experience required to gain the required competence in the technical and contract administration areas. There are at least two possible means by which this competence could be developed outside the established intern program, neither of which is a "short-cut" to licensure:

a) Alternates to logging hours as an employee

With certain exceptions, intern experience has to be logged in the employment of and under the supervision of a registered architect. The regulators could develop a program for academic staff to monitor projects within an architectural practice that they are not employees of.

b) Advanced degree leading directly to licensure

It might be possible to develop a post professional degree that leads directly to licensure. If the degree involves only material that is covered in the intern program and examinations, then this might be a "Doctor of Architecture" degree. If the program covers that same material but also includes peer reviewed research of sufficient academic quality, the awarded degree could be a PHD. This option would require intense input both by the regulators, and any by school that provided this option.

3. Right to the title of "Teaching Architect"

Provincial legislation or regulator by-laws could be modified to permit holders of a professional degree in architecture to use the designation of "Teaching Architect" or some similar title as long as they are on a faculty. This is not as powerful psychologically as options 1 and 2 but it is much easier to put in place.

What we might do

Implementation of any one of the options listed above would have some effect on the mentoring environment in our schools of architecture. If we did all three, I think it would have a deeper affect on the success of the intern program than any other change we might make to the accreditation conditions, or to the intern program itself.



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ISSUE PAPER 26

ClimateCurriculum.ca Survey

Submitted by

**Terri Peters, Toronto Metropolitan University
(Ryerson)**

CACB CONFERENCE**ISSUE IDENTIFICATION FORM**

Name: Terri Peters

Email:

Title:

Organization: Toronto Metropolitan University

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, "label" the issue</i>	ClimateCurriculum.ca Survey
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	Architects and all in the building industry are engaging with new climate targets and regulations about sustainable design and building performance, but this is not necessarily reflected in the architecture curriculum. Students studying architecture in Canada do not explicitly have a course relating to climate change. Accredited schools explore sustainability and climate change in varying ways. Canadian architecture students are aware that future practice will require a greater understanding of the environmental impacts of design, and that they will be asked to design net-zero buildings and must understand metrics and concepts such as embodied carbon and renewable energy. Do they feel confident that they can incorporate these ideas while focusing on design excellence? Are students going to be prepared for future practice? Do they feel prepared?
Context <i>Provide details of the background that give rise to this issue</i>	The ClimateCurriculum.ca project surveyed Canadian student and instructor attitudes to their climate change education in accredited schools of architecture. We used a 19-question web survey inspired by and adapted from a survey by the ARCH4 Change Erasmus+ consortium, which is led by Tampere University (Finland), with Aarhus School of Architecture, Denmark; Bologna University, Italy; Taltech, Estonia; and TU Dublin, Ireland.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2021 Conference</i>	There were 196 survey responses from all 12 of Canada's accredited architecture schools. The analysis of survey responses will be a shared, and key themes discussed. This is important to share and discuss at the 2021 conference because architectural education should reflect current societal needs and issues and this survey can be a discussion point.



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ISSUE PAPER 27

Towards Diversity, Equity and Inclusion

Submitted by

**Fiona Hamilton, Larissa Korol & Madsen Kantiz,
on behalf of the Canadian Architecture Students
Association (CASA)**

CACB CONFERENCE**ISSUE IDENTIFICATION FORM****Name:** Fiona Hamilton, Larissa Korol & Madsen Kantiz**Title:** Towards Diversity, Equity, and Inclusion **Organization:** Canadian Architecture Students Association

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, "label" the issue</i>	see following pages for information
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	
Context <i>Provide details of the background that give rise to this issue</i>	
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	

1. Name of Issue

In 5 or 6 words, "label" the issue

Towards Diversity, Equity, and Inclusion in Architectural Education in Canada

2. Issue Description

In a paragraph or two, describe the issue more fully.

Ongoing public pressure on provincial and federal government and organizations has increasingly exposed the racial inequities of society and education in Canada and elsewhere.

This increasing pressure has significantly impacted architecture schools across Canada and our curriculum, demanding increasing transparency and accountability between institutions, scholars, students, and the public. As institutions begin to process, develop, and transform policy, the identity of architectural education and its students shift as well. To respectively organize and support this new effective identity of students and institutions, national disciplinary policy must prioritize diversity, equity, and inclusion in education, subsequently impacting practice.

CASA-ACÉA has identified the following four steps below to fully engage this topic within our organization. This issue paper and its inclusion in the CACB conference aims to be part of a collective reflection on architecture curriculum and one step in discussing the issues surrounding this topic.

1. Engage in key issues of students concerns related to diversity, equity and inclusion in their architectural education and experience
2. Amplify and represent student voices through collecting current information and perspectives.
3. Circulate and share collected information to ensure institutional and organizational change continues in Canadian Architectural education.
4. Prioritize and maintain information and resources so it accurately represents current students and ensures continued accountability of Institutions.

3. Context

Provide details of the background that give rise to this issue

As a first step in properly addressing the issue(s) and representing students' perspectives, the Canadian Architecture Students Association/Association Canadienne des Étudiants en Architecture (CASA-ACÉA) has prepared a student survey on the listed topic. This survey was created within the organization of CASA-ACÉA. The review of the content has involved internal and external members - including CASA-ACÉA board of directors and select representatives from diversity and education groups and committees across Canada. The final review of the survey involved CASA-ACÉA directors and the manager of Dalhousie Student Union Equity and Accessibility office to ensure sensitivity of the

topic and collection of data are principal.

Survey - *Towards Diversity, Equity, and Inclusion in Architectural Education in Canada* (see pages 3-8)

Open: Wednesday, June 22, 2022

Close: Wednesday, July 06, 2022

This survey will be released to students through school administrators at each of the 12 Architecture schools, student associations through email and Instagram and CASA-ACÉA. Instagram page and stories.

4. Relevance

In a few sentences, state why this issue is important and should be discussed at the 2022 Conference

The submission topic of Diversity, Equity and Inclusion in Architectural Education in Canada needs to be principal in architectural curriculum and the accreditation process. It is an important part in unsettling the disciplinary conventions of institutions and the idea of what architecture is, and how we perceive and understand the impacts of current and future architectural discourse. Students and organizations' ability to generate urgency through policy and discussion must continue within national organizations like CASA-ACÉA and the CACB with the continued mandate to advocate for students and shape architectural education in Canada.

Towards Diversity, Equity, and Inclusion in Architectural Education in Canada

by Canadian Architecture Students Association/Association Canadienne des Étudiants en Architecture (CASA-ACÉA)

CASA-ACÉA is a national organization with members representing each of the 12 accredited architecture programs across Canada. Although there are some general trends in acknowledging the traditional territories of Indigenous peoples, there is no single wording that applies to all territories. Therefore, CASA-ACÉA acknowledges the territory of Ottawa, in which it is a registered not for profit organization.

Ottawa is built on unceded Algonquin Anishinaabe territory.

The peoples of the Algonquin Anishinaabe Nation have lived on this territory for millennia. Their culture and presence have nurtured and continue to nurture this land.

The City of Ottawa (and CASA-ACÉA) honours the peoples and land of the Algonquin Anishinaabe Nation.

The City of Ottawa (and CASA-ACÉA) honours all First Nations, Inuit and Métis peoples and their valuable past and present contributions to this land

– from City of Ottawa, respectfully used by CASA-ACÉA which operates on Algonquin Anishinaabe Nation land.

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CACB Conference

The Canadian Architectural Certification Board (CACB) is planning a conference on October 28-29, 2022 with the following conference theme, Architecture Continuum: Collaborate, Educate, Integrate brings together the CACB and its collateral organizations to examine “how to make the architecture education continuum better integrated for students, educators, interns, and practitioners?”

The conference will be attended by CACB board members and select delegates from each of the accredited architecture programs. And in order to engage the broader architecture community in setting the stage for the conference, the Conference Committee is re-issuing an open call for ‘issue papers’ on topics that examine the current and future state of architectural education. Once collated and summarized, the Conference Committee will use these issue papers to help frame the discussions at the October 2022 conference. Issue paper submissions are open to anyone.

- from The Canadian Architectural Certification Board

The following survey (*Towards Diversity, Equity, and Inclusion in Architectural Education in Canada*) and the results will contribute to CASA-ACÉA’s submission of an issue paper on this topic to the CACB conference in 2022. Results will be presented and stored within CASA-ACÉA anonymously. CASA-ACÉA has the right to publish these results.

List of Terms:

BIPOC = Black, Indigenous, Person of Color

LGBTQIA2S+ = Lesbian, Gay, Bisexual, Transgender, Queer/Questioning, Intersex, Asexual, Two-Spirit, and the many other affirmations people use to self-identify. (Source: Portland art museum)

Two-spirit = term used within some Indigenous communities, encompassing cultural, spiritual, sexual and gender identity. The term reflects complex Indigenous understandings of gender roles, spirituality, and the long history of sexual and gender diversity in Indigenous cultures. (Source: phsa Trans care BC)

Example acts of Anti-racism = Renaming racially insensitive buildings, consistent sharing and creating of resources from the school for students, offering a support line, etc.

Start of Survey:

1. Which architecture school or Canadian region did you attend architecture school in (current and/or Alumni)?
 - Atlantic Canada
 - Quebec
 - Ontario
 - Prairies
 - British Columbia
 - Territories
 - University (Comment Box)
 - (Fill in University here)
 - I prefer not to answer

2. Choose the option(s) that best describes your **current** identity: How do you choose to identify (Select as many you feel)
 - Black (ex: African, African-Canadian, African-Caribbean, other African heritage)
 - Indigenous (ex: First Nations, Metis, Inuk, prefer not to specify)
 - Latin American/Canadian
 - Chinese
 - Filipino
 - Japanese
 - Korean
 - South Asian (ex: Bangladeshi, Indian, Bhutanese, Indo-Caribbean, Maldivian, Nepali, Pakistani, Sri Lankan, other South Asian heritage)
 - Southeast Asian (ex: Bruneians, Indonesian, Cambodian, Laotian, Malaysian, Myanmar, other Southeast Asian heritage)
 - West Asian/ Middle Eastern (ex: Afghan, Armenian, Jordanian, Iranian, Lebanese, Egyptian, Saudi Arabian, Turkish, Israeli, Palestinian, Iraqi, other West Asian/ Middle Eastern heritage)

- Arab
 - Disabled (includes all disabilities, not limited to physical or mental), technically, this could be a separate question separate from identity, or included twice. "Do you identify as a person with a disability?" Then list many options.
 - LGBTQIA2S+LGBTQIA+
 - Two-spirit (Indigenous only identifier, but separate from Indigenous identity)
 - Caucasian
 - Female
 - Male
 - Not listed, described here: _____ <Comment (fill in section)
 - I prefer not to answer
3. Do you identify as a person with a disability? (Select all options that apply)
- N/A
 - Memory
 - Hearing
 - Mental health
 - Chronic condition
 - Neurodevelopmental
 - Vision
 - Speech
 - Dexterity
 - Mobility
 - Not listed, described here: _____
 - Prefer not to specify
4. I feel my voice and opinions are valued as an individual within my architecture program.
- Strongly Disagree
 - Somewhat Disagree
 - Neither agree nor disagree
 - Somewhat agree
 - Strongly agree
5. I have experienced racism or discrimination (because of how I identify) while in my architecture studies from:
- The school
 - Peers
 - Faculty
 - Other staff (non-teaching staff and non-administrators)

- The Workplace (Employer, co-op, Teaching or Research Assistant Duties)
- Other (Comment Box)
 - (space for student to fill in own answers)
- I do not feel I have experienced any racism or discrimination

6. If you answered yes to the previous question, would you like to share your experience:
- No, I don't want to share my experience
 - Yes (comment box)
 - (space for students to input information)

Questions 7 to 10: Many institutions have taken steps to address these issues. The following questions are focused on your institutions action plan and steps forward

7. Has your institution created and released an action plan detailing steps forward, goals and policies towards equity?
- Yes
 - My faculty has not done anything
 - I do not know
 - Comments
 - (space for students to elaborate if they would like to)
8. Do you know where to find your institution's equity plans?
- Yes
 - My faculty has not done anything
 - I do not know
 - Comments
 - (space for students to elaborate if they would like to)
9. Since the release of your school's plan have you seen notable action from your faculty in response to anti-racism discussions?
- Strongly Disagree
 - Somewhat Disagree
 - Neither agree nor disagree
 - Somewhat agree
 - Strongly agree
 - Comments:
 - (space for students to elaborate if they would like to)

10. I have seen actionable efforts towards fostering an inclusive and equitable learning environment from the faculty over the past few months.

- Strongly Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree
- Comments:
 - (space for students to elaborate if they would like to)

11. My school is taking an active approach to hiring BIPOC, /LGBTQIA2S+, and other traditionally minoritized scholars, practitioners, and communities:

- Strongly Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree
- Comments:
 - (space for students to elaborate if they would like to)

12. My school has initiatives for community building and mentorship that are inclusive for BIPOC, /LGBTQIA2S+, and other traditionally minoritized communities, practitioners, and communities.

- Strongly Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree
- Comments:
 - (space for students to elaborate if they would like to)

13. My school has integrated the histories, practices, precedents by and for BIPOC, /LGBTQIA2S+, and other traditionally minoritized communities, practitioners, and communities into the required curriculum:

- Strongly Disagree
- Somewhat Disagree
- Neither agree nor disagree
- Somewhat agree
- Strongly agree

- Comments:
 - (space for students to elaborate if they would like to)

14. Any issues or comments that you would like to bring to our attention?

- Comment
 - (space for students to comment)
- Prefer not to comment

15. How would you like to see your school and your architecture education incorporating the findings from this survey?

- Comment
 - (space for students to comment)
- Prefer not to comment

16. What are your thoughts on this moving forward?

- Comment
 - (space for students to comment)
- Prefer not to comment

End of Survey, Thank you.



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ISSUE PAPER 28

Impacts of Covid-19 on Architecture Student Wellness

Submitted by

**Fiona Hamilton, Daline Chicoine, Dharshana
Muhunthan & Adhira Ravi, on behalf of the
Canadian Architecture Students Association
(CASA)**

CACB CONFERENCE**ISSUE IDENTIFICATION FORM****Name:** Fiona Hamilton, Daline Chicoine, Dharshana
Muhunthan & Adhira Ravi**Organization:** Canadian Architecture Students Association.....**Title:** Impacts of Covid-19 on Architecture
Student Wellness

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, "label" the issue</i>	see following pages for information
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	
Context <i>Provide details of the background that give rise to this issue</i>	
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	



ISSUE PAPER FOR CACB CONFERENCE 2022

NAME OF ISSUE: Impacts of Covid-19 on Architecture Student Wellness

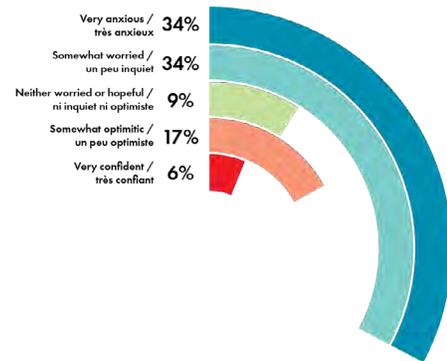
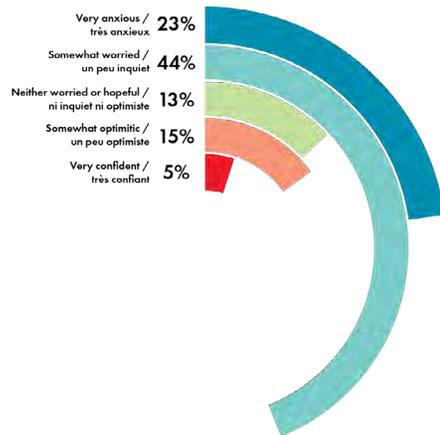
ISSUE DESCRIPTION: The Canadian Architecture Students Association (CASA) circulated a wellness survey/ check-in, in 2020 and 2021. This survey acted as a method of understanding how architecture students across Canada had been affected by on-line learning during the global covid-19 pandemic.

CONTEXT: The following summaries have been produced by CASA representatives to help outline the trend in responses received from students, touching on topics about physical and mental wellbeing, major concerns throughout the Covid-19 Pandemic, what students were looking forward to, as well as a follow up question from the 2021 survey which inquired what students' experience had been with on-line learning.

RELEVANCE: Throughout the Covid-19 Pandemic architecture students across Canada faced unprecedented challenges to their architectural education. Discussing and developing a heightened awareness of the actual conditions and impacts that students experienced in an ever-changing educational environment will provide insight into future institutional approaches.

CONTRIBUTORS: Daline Chicoine (University of Manitoba Rep), Fiona Hamilton (CASA President), Dharshana Muhunthan (Toronto Metropolitan University Rep), & Adhira Ravi (Laurentian University Rep)

HOW STUDENTS WERE FEELING



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

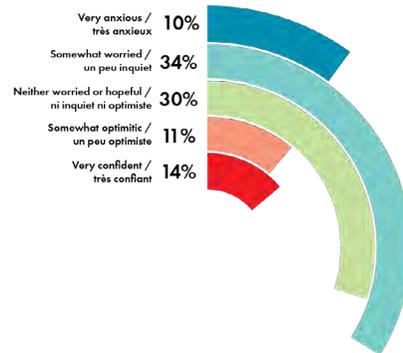
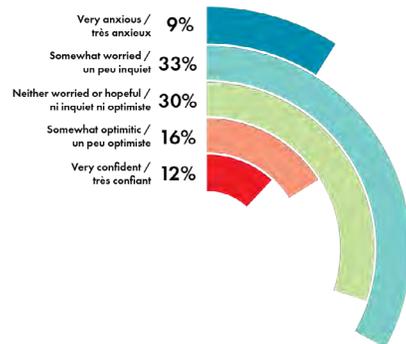
2020 | 276 RESPONSES/ RÉPONSES

Mentally | Mentalement

HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

Mentally | Mentalement



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

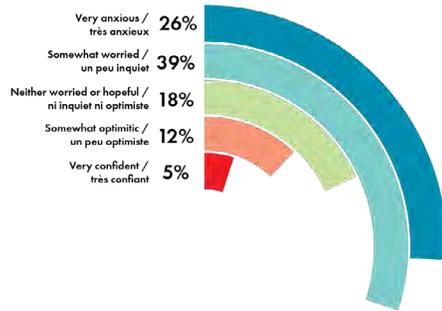
2020 | 276 RESPONSES/ RÉPONSES

Physically | Physiquement

HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

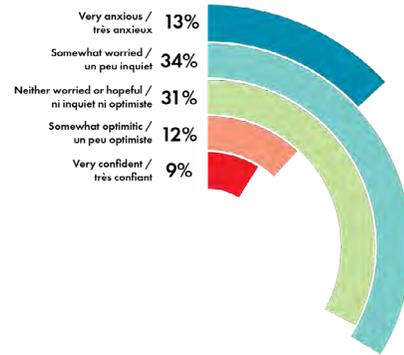
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HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2020 | 276 RESPONSES/ RÉPONSES

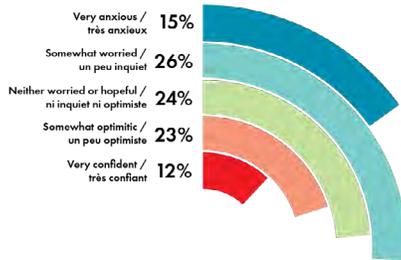
Financially | Financièrement



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

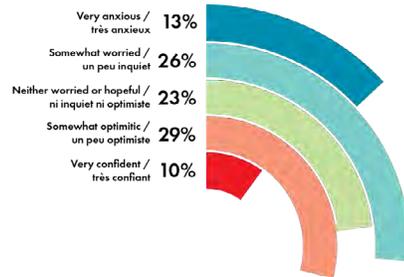
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2020 | 276 RESPONSES/ RÉPONSES

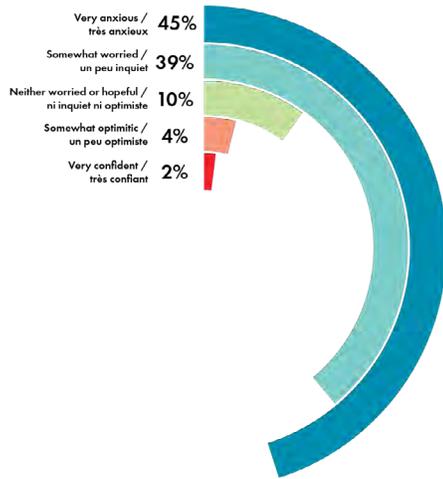
About your school's response to COVID-19 | Par rapport à la réponse de votre université envers la pandémie de la COVID-19



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

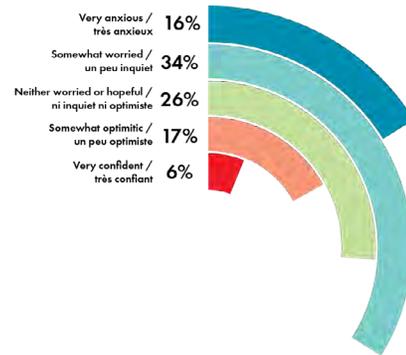
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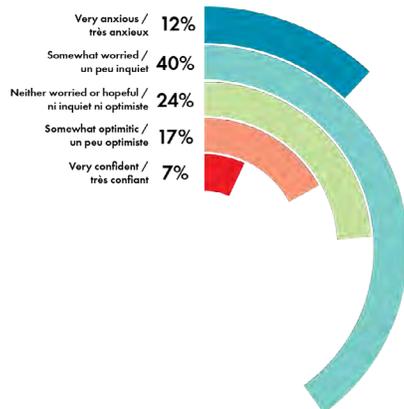
About professional opportunities | Par rapport aux opportunités professionnelles



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

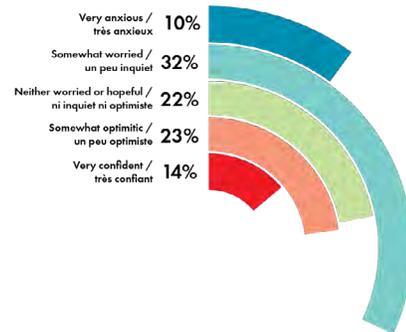
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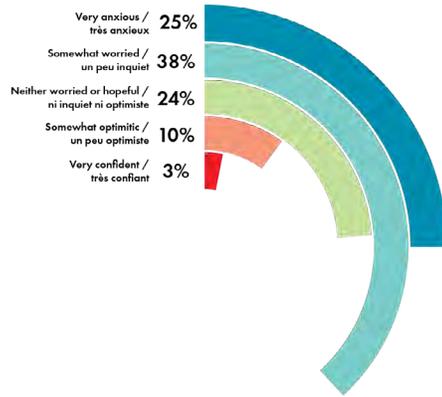
About your family, friends and peers | Par rapport à votre famille, vos amis, vos pairs



HOW ARE YOU FEELING? / COMMENT VOUS SENTEZ-VOUS?

2021 | 93 RESPONSES/ RÉPONSES

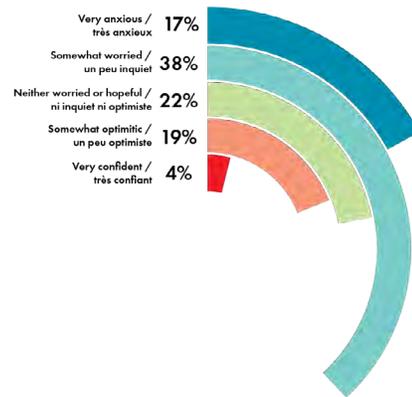
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**HOW ARE YOU FEELING? /
 COMMENT VOUS SENTEZ-VOUS?**

2020 | 276 RESPONSES/ RÉPONSES

About social activities (in & out of school) | Par rapport aux événements sociaux (incluant ceux organisés à l'interne et à l'externe)



**HOW ARE YOU FEELING? /
 COMMENT VOUS SENTEZ-VOUS?**

2021 | 93 RESPONSES/ RÉPONSES

About social activities (in & out of school) | Par rapport aux événements sociaux (incluant ceux organisés à l'interne et à l'externe)

MAJOR CONCERNS

2020 Responses

COVID-19 pandemic has been a global serious issue that has adversely impacted humanity. This Wellness Survey was aimed to investigate its impact on students' lives and learning circumstances. The Wellness Survey results 2020 summarized below, highlight these student concerns.

With universities immediately shutting down, and classes and studios moving on-line, many students expressed great abhorrence towards the modified methods of delivery of education. Due to complete lock-down, they complained of no access to library services and physical archives, workshops/ wood shop, model making resources as well as no amendments to the curriculum accommodating such constraints . Seemingly increased workload by lack of resources, with no hands-on studio exposure resulted in an overwhelming experience for the students. Further to these issues, students also communicated about the universities' lack of flexibility with deadlines, that there was no time given for adjusting into the new set up, nor was there any consideration given for differences in time zones, time management for the new pattern and/or the additional workload, resulting in a demoralizing atmosphere for students. Other commonly cited issues were cancellation of international tours or sessions, no foreign exchange study opportunities, no hands-on experience, no wi-fi access, or even a proper workspace. Understandably, these resulted in the assignment grades going down. Decreased quality of education not only prompted fee structure related disagreements between the students and the institution, but it also translated to rapidly worsening mental health.

During the global lock-down, a severe drop in the economy was observed, along with which, graduate and summer co-ops reduced significantly. The lack of jobs severely limited career building opportunities. Combined with the reduced work positions, there was also high competition, making many students grow anxious of not being able to generate funds to pay for school and medication. A general opinion was that there hadn't been a point in opting for a co-op program, and there being no co-op opportunity (local or international) in certain cases even meant losing an entire year.

Some students enrolled in a co-op program claimed that they felt out of place in the time schedule of the program in comparison to those students who managed to secure a job and didn't get laid off. For the newly graduated, unemployment gave them a feeling of being cut off from their own field because of such events happening right after graduating.

Another ambiguous area impacted was the student housing amenities. With not enough clarity on mandatory focus on on-line studies, developing and maintaining plans over student housing would amount to an unnecessary waste of money and food.

With an on-line study schedule taking shape, issues raised were that such infrastructure was introduced without any training, resulting in a student experience that was "uninspiring" and "demotivating", especially

because in-person collaboration (as in studio classes) had been cut out completely. Some feedback even mentioned that the overall semester organizing was rather confusing, that in turn led to more anxiety and lower productivity.

With the virus manifesting itself globally, and impacting every known sphere of operation, it has brought with it hitherto unknown problems, and uncertainty. The mental & physical health issues faced, no contact with loved ones (isolation and quarantining), plus the new norm of coping with on-line classes can undeniably be exhausting. And of course, with its unknown quality, questions would always be asked whether it's going to get any better or will people continue to live with a strange fear towards each other.

2021 Responses

Much like 2020, the COVID-19 pandemic left a large number of students struggling even in 2021. Students especially faced financial and mental health challenges that put their education in jeopardy. They had to overcome huge changes to their lives and learning environment, have new living arrangements that made learning difficult, and often lacked the resources necessary to even log into class on-line. If 2020 presented completely unknown challenges, the continuation of the pandemic into 2021 posed further coping issues to the students. The constantly mutating variants, continuous spikes in cases, people growing weary of lock-downs, discomfort of on-line school continuing for another year, all these factors continued to play on the minds of the students.

Adding to the pressures, there was always a suspicion that once in-person classes resumed, there were possibilities that cases would increase, causing yet another spike, that such uncertainty would ultimately overwhelm the institution - since the wavering steps of schools reopening and then maybe, re-shutting would be tiresome and a logistical nightmare. Moreover, Covid-19 being such a volatile and evolving pandemic, the introduction of new variants would keep everyone on their watch, resulting in fatigue and exhaustion. The survey also focused on scenarios where hybrid methods of teaching were not adopted by many schools yet. Students found working and/or studying remotely to be a very uneasy arrangement and one which they couldn't adjust to comfortably. In the cases where students did acclimatize to on-line learning, the next time off-line classes get commenced, it would again affect their equilibrium.

Furthermore, the continuing malady of not having co-op opportunities or student exchange programs, only went on to exacerbate the problem. From the mental and physical challenges mentioned above, even the financial issues faced were unrelenting in their pressure. Scenarios of unemployment, economic crises, deflated markets, all coupled with individual loss of earnings and lack of well-being put the question around fee expenses and rental charges.

Finally, students' performance and abilities took a severe beating due to the pandemic factors. Not being accorded opportunities to connect on a personal or professional level, made them doubt their own strengths and characteristics. Isolation, depression and a cocooned living quarters demotivated many. Monotonous situations due to lack of in-person supervision often led to low concentration, distraction

and instances of “zoning out”. Many new students also were left feeling helpless as they had only recently moved into a new city/country for their academic future, and there, they were made to face uncertainties relating to housing, food, finances and also alternate between on-line and off-line classes. Students who drifted out like this cited such scenarios to be the cause of them losing out their daily rhythm, falling behind in their duties and a general lack of interest / attention to studies. Guidance, mentoring, support from faculty would have been a great antidote to these issues; although there were instances of such support, largely, to the surveyed, it felt that the professors did not take enough steps to help out despite noticing the increasing “all nighters” hence deterioration of physical and mental health.

WHAT WERE STUDENTS LOOKING FORWARD TO:

With the abrupt upheaval of all normality at the onset of the Covid-19 Pandemic, many student responses centered around gaining more certainty in their day-to-day lives, as well as being able to return home to friends and family. There was hope that the pandemic would end, and students could return back to their regular scheduled programming.

With the early uncertainty around course delivery over, overwhelmingly students were most looking forward to returning to in person learning. Survey participants described the studio environment as a place for communal collaboration, an engaging and inspiring atmosphere, as well as a workspace for their own creative output. The prospect of being in proximity of classmates and peers was looked forward to as an opportunity to network as well as foster a community of like-minded individuals. Students wished not only to meet their classmates and reunite with their studio friends, but also expressed their interest in having face-to-face interaction with their faculty and staff members. The anticipation for returning to in-person learning meant developing a sense of community that had been difficult to replicate in a virtual environment. Returning to studio and in person learning was referred to as receiving the high quality education that tuition is meant to be paying for.

Students who had reached the end of their architectural educational journey were looking forward to their graduation, some looked forward to being done with architecture school all together, and others were hopeful that they would be able to secure internships and/or co-op opportunities in the summer months. Many students who were looking for industry employment during their education noted that it was required to offset the burden of tuition and living costs.

Many respondents were optimistic in the sense that they were enthusiastic about some of the positive aspects that the global pandemic might influence such as; a shift in society where the environment is better respected, addressing challenges with communication in architecture school and practice, the ability to attend virtual lectures globally, the development of on-line resources, potential for hybrid work environments, new opportunities for time management and the flexibility with physical and mental health days.

EXPERIENCE WITH ONLINE LEARNING:

2021 Responses (Question introduced in 2021 Survey)

Adopting a form of learning different from the traditional method of education can presume both advantageous and disadvantageous to a student's academic success and personal growth. After analyzing the responses from the CASA-ACEA Check-in 2021 results, there were a greater number of individuals who experienced a negative outcome from remote learning—pertaining to the outlook of educational experiences and personal situations which may have affected an individual's academics.

Completing the studio through the medium of zoom for a long duration of time acquired an overwhelming effect on students' ability to focus and concentrate. Such a position would rather tire and drain students' energy, resulting in their experience to feel “exhausting” and “boring”.

Through remote learning, the importance of communication skills and enthusiasm were over elaborated as they determined the outcome of how and if a student would efficiently obtain information. Although students felt as if most of their professors were well equipped and adapted to switching to remote learning, students feel as if their quality of learning has declined, further attributing to why classes may feel tedious and uninspiring. As some students strongly expressed their detest for on-line learning, some students enjoyed working in their own cultivated environment, while others felt such a method of education was possible though not enjoyable.

Environment and location of study were taken into consideration with regards to the student's role with academic success. Pertaining to students' responses, environment and access to personal and public space significantly affected proper access to classes and individual work ethic. The barrier of communication not only affected the ability for students to develop relationships between their peers and professors, but such barriers also possessed difficulties for students to stay engaged. A majority of students believed it was difficult to retain information remotely—a cause and result of the feeling of amotivation, exhaustion and stress. As many students disclosed how grades were not the primary issue of concern as they were not extensively affected, some students felt as if they weren't able to perform to the best of their abilities. Periodically, students consistently expressed concern for their mental health. With difficulties to retain information remotely, the feeling of amotivation, exhaustion and stress were further accumulated throughout their duration of study. Some students felt that there were no social activities to partake in within the program, increasing the feeling of disconnection between students and their peers and professors. Such disengagement to social engagements have been detrimental to the mental health of students. As some students expressed how remote learning affected their performance, they found comfort in being in the environment of a home since there were no distractions from peers when completing individual tasks. However, conversely some students emphasized the significance in differentiating a live/work environment and how remote learning deprived students of the ability to make such distinction. In particular, it is hard to differentiate and separate the stress and difficulties associated within an individual's school life and personal life, making it harder for individuals to attend to certain priorities.



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ISSUE PAPER 29

Managerial Strategies Imperative from Academia to Practice

Submitted by

**Christopher Johnson, Laurentian University
McEwen School of Architecture**

CACB CONFERENCE**ISSUE IDENTIFICATION FORM**

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Title:

Organization: Laurentian University McEwen School of
Architecture

This form should be used to identify Issues within the Architecture Continuum which will feed the dialogue at the CACB Conference in 2022. This form can be a standalone document or used as a cover page for an additional companion paper.

Name of Issue <i>In 5 or 6 words, “label” the issue</i>	Managerial Strategies Imperative from Academia to Practice
Issue Description <i>In a paragraph or two, describe the issue more fully.</i>	As students progress through their education, many are exposed to varying facets of the industry. However, business remains one constant issue among emerging practitioners. The Performance criteria outlined in the CACB Conditions and Terms for Accreditation — 2017 Edition — 3.11.2 indicates as part of the Accreditation process, “The students must have an understanding of the basic principles and types of practice organization, including financial management, business planning, entrepreneurship, marketing, negotiation, project management, risk mitigation, as well as an understanding of trends that affect the practice” (pg. 22). While there is no doubt there is some action to engage students in business planning in architecture school, the question that arises is whether the schools promote the bottom line in supply and demand. Can students immerse themselves in the business of Architecture at an early age?
Context <i>Provide details of the background that give rise to this issue</i>	Understanding the relationship between architecture and the legal and abiding responsibilities of managing a business is a conversation that creates an impression on young professionals. Professional Practice should not be the only gauge for managing client expectations, project timelines, and legal actions against a firm. Students should acknowledge the repercussions of their design as they enter the profession. Client engagement, collecting business, and methodologies for managerial activities are not present in a project in academia.
Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i>	Architecture is evershifting within the profession; the next generation is ready to move into firms across the country. The efficacy of management is a much-needed area of emphasis for the future of the profession. Without business knowledge, designers are at a disadvantage and remain stagnant as innovators. Students should understand the impact finance has on their clientele. Most learn by experience or example, which is counterintuitive for innovative and aspiring architects across Canada. We need to adapt our standard business practices from the profession to academia. By encouraging working sessions for students at school, architectural institutions can promote robust business models for students in their career paths, ultimately creating more resilient professionals in the pursuit of Practice.



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ISSUE PAPER 30

Diversity and Inclusion Mandates in Architectural Curriculum and Accreditation

Submitted by

Kevin Kunnappilly, McGill University

CACB CONFERENCE

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Title: M.Arch.Candidate.....

Organization: McGill University.....

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<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Diversity & Inclusion Mandates in Architectural Curriculum & Accreditation</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>The 2017 Edition of the CACB's Conditions and Terms for Accreditation addresses the need for diversity and inclusion (D&I) both within architectural curriculum and operation of architecture schools to some detail; however, the criteria can be interpreted as vague or being left to the discretion of individual schools. The wake left by the George Floyd protests of summer 2020 catalyzed the formation of many D&I initiatives and committees across architecture schools, yet largely on the initiatives of students and staff themselves. As two years have passed, many can sense the intensity, passion, and urgency with which these initiatives were once run starting to diminish, due to reasons such as student and staff turnover, new media sensations (virus, war, etc.), and wavering communication. Considering that D&I is vaguely a requirement in these educational contexts via CACB, the structural integration of D&I committees, reading seminars, equitable hiring processes, and more with further conviction into the accreditation process should be considered. If we agreed these initiatives were needed since 2020 and likely earlier, then they should rather be mandates applied multilaterally across curriculae and institutions.</p> <p>For the next edition of the Conditions and Terms, instead of each school determining themselves the degree to which students and staff comprehend D&I, we can consider alternatives such as mandatory D&I training, course credit or compensation for aiding D&I initiatives, mandatory quotas for D&I specific courses, and specific guidelines for D&I committees within schools as criteria for accreditation. Ultimately, we should agree that a capable architect is willing and able to support D&I in their professional contexts, and thus the pedagogy for such must be mandated similarly in each and every school.</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>Architecture Program Report 3.3 Equity, Diversity, and Inclusion</p> <p>The Program must conform to provincial and institutional policies that augment and clarify the provisions of the Charter of Rights and Freedoms as they apply to social equity. Policies in place that are specific to the school or professional Program should be clearly stated, as well as the means by which the policies are communicated to current and prospective faculty, students, and staff. The APR must include procedures in place to achieve equity, diversity, and inclusion in school operations and activities.</p> <p>Program Performance Criteria 3. Global Perspectives and Environmental Stewardship The Program must demonstrate how it embraces the diverse contexts that define contemporary architecture, including local, global, and environmental interests.</p>

	<p>Student Performance Criteria B4. Cultural Diversity and Global Perspectives</p> <p>The student must have an understanding of the diverse needs, values, behavioural norms, and social/spatial patterns that characterize different global cultures and individuals and the implications of diversity on the societal roles and responsibilities of architects.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i></p>	<p>D&I is a daily issue, not one that comes and goes with the years. Each and every incoming class of architecture students should know that D&I is important at their institution of study. We share the responsibility to continue the inbounds for D&I which have been made in architecture schools over the years, to continue forming architects who respect the people, places, and environments around them. As well, we share the responsibility to both continue welcoming marginalized peoples into a previously exclusive profession and exemplify good design for marginalized peoples, which extends to differences in race, culture, gender, ability, sexuality, age, class, beliefs, education, and more, holding immense potential for unique design perspectives and solutions.</p>



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ISSUE PAPER 31

Burnout: In Architectural Education and the Profession

Submitted by

**Kylie Wilson, University of Calgary CASA
Representative**

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Email:
Organization: CASA

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<p>Name of Issue <i>In 5 or 6 words, "label" the issue</i></p>	<p>Burnout: In architectural education and the profession</p>
<p>Issue Description <i>In a paragraph or two, describe the issue more fully.</i></p>	<p>Burnout in this context can refer to many a wide variety of experiences, practices and commonalities within the design community. However, deconstructing burnout in architectural education and profession reveals core that is two-fold. Burnout is an individual experience of being over worked and unreasonably stressed to a level that hinders one's mental, physical, professional and academic ability, and it is also a custom embedded deeply into the culture of architecture. It stems from our beliefs from our values as a community, and from what we collectively deem as normal experiences. Burnout continues to flare up at all scales - in all areas of education and the profession - due to the largely unchallenged, perhaps historic and most definitely current ways in which we construct curriculum, build companies and create cultures. Burnout is an undeniable pillar in the building of an architect, and it is vulnerable in its compounding risks. Opening this up for discussion will help us to open up the issues about why burnout seems to be okay.</p>
<p>Context <i>Provide details of the background that give rise to this issue</i></p>	<p>We have all experienced burnout at some point within our education or work experience. Burnout can be self-induced, where for many it begins innocently, manifesting from a can-do, work-harder, design-better, deterministic attitude. Others may experience burnout in an attempt to cope with the stress of heavy deadlines or to present as knowledgeable and experienced rather than stressed out and vulnerable, either in the workforce or at school. Whether we get burnt out from silent competition, from trying to enter into the workforce, delivering to a client or creating the perfect project, burnout is the elephant in the room. The cultural undercurrent that makes it OK for burnout to be 'normal' that courses through classrooms and offices ought to be dissected deeper than face-value. We see it everywhere - from students pulling regular all-nighters, to the thousands of social media accounts dedicated to humour centered solely around about architecture and burnout, to emails sent late at night, to the weary and worn out senior academics and professionals, to the replies that you hear when someone is asked, 'how are you?' Yes, burnout is deeply embedded into the culture and nature of architecture, but I do believe there are ways to begin to unravel it.</p>
<p>Relevance <i>In a few sentences, state why this issue is important and should be discussed at the 2022 Conference</i></p>	<p>It is important to have an open dialogue about the issues that students and professionals face, and to routinely take a critical approach to values, practices and cultures within the industry that are perhaps preventing individuals and the community as a whole to achieve higher standards and see greater feats of achievement. Making an attempt to identify areas where we as individuals and as employees, students, educators and businesses can step back when we see burnout looming over our desks is imperative. Asking 'why,' sharing experiences, and speaking with as many individuals and groups involved in the architecture community about burnout will actively work towards healthier communities, inside and out of the field.</p>



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ISSUE PAPER 32

Mental Health in University Students and their Desire to Stay
Connected

Submitted by

Olivia Raposo, Dalhousie University

Issue:

Mental health in university students and their desire to stay connected.

By: Olivia Raposo

Within Canada, there is a gap in mental health services and a lack of sufficient support for students to receive help. In 2019, 16.4% of Canadian students reported that they themselves had considered suicide and 45.5% had low awareness on how to access mental health support services on their campus (ACHA, 2019).

For university students there is a constant waitlist for therapy which causes students to outsource more expensive options outside of school benefits. During the COVID-19 pandemic, same day appointments were removed and appointments went online which eliminated the human connection that individuals already were struggling to achieve. For some universities you have limited sessions with a therapist on campus due to a limit in insurance/ benefit coverage. The desire for humans to connect is key to improving one's mental health and feelings of isolation. Schools often play a role in promoting "mental health week" and presenting a ton of resources they offer; however, in reality they have few resources to accompany the large number of students needing help especially with the lasting effects of COVID-19.

Many Universities work from a single session model which is a form of brief therapy that is goal-directed, however, meant to be short-term. This makes it very limiting for a student who is experiencing multiple stressors day to day. Whereas in a hospital when things pop up in their life it is limited because it is illness focused so factors outside of their environment are not affecting their day. Brief counseling has some benefits in terms of assessing your progress towards your goals each session. However, some students might benefit from long term counseling but universities don't offer these resources, referring students to other community support. Furthermore, websites like Dalhousie University' Health and Wellness page are very vague with limited resources or solutions to help students know what services they can access.

At Dalhousie University the studio atmosphere created for architecture students allows people to minimize their stress levels by offering a space that facilitates constant collaboration with people from our community. This collaboration fostered by students helps to eliminate feelings of isolation that developed during COVID-19 and working from home. However, this takes place in a very narrow focused environment where the discussion is strictly homework based. There needs to be a greater emphasis on social events that connect people with their programs and allow them to share similar interests but take a proper break from school. At Dalhousie University, prior to COVID-19, liquid lounges were hosted and allowed people to view each other's work while engaging in conversation. However, events like these are limited with restrictions around COVID-19 still being a concern. These social events foster environments that inspire and connect students to a community of other fellow architecture students. When

students are given the opportunity to connect with others by sharing similar experiences, it supports emotional responses and aids in coping with stress and feelings of isolation.

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ISSUE PAPER 33

Submitted by

The Ordre des architectes du Québec (OAQ)

**Avenues for discussion
for the conference**

*Architecture
Continuum:
Collaborate,
Educate, Integrate*

Issue Paper prepared by the Ordre des architectes du Québec (OAO)
Submitted to the Canadian Architectural Certification Board

June 2022



ORDRE DES
ARCHITECTES
DU QUÉBEC

A quality built
environment
benefits us all.

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Background

In October 2022, the Canadian Architectural Certification Board (CACB) will be hosting the *Architecture Continuum: Collaborate, Educate, Integrate* conference with a view to examining how to "make the architecture education continuum better integrated for students, educators, interns, and practitioners." The CACB invited organizations to submit issue papers to inform and guide discussions.

In responding to this call, the Ordre des architectes du Québec (OAQ) drew on the information provided by its education, succession and admission committees as well as on the advice of Odile Roy, architect and visiting professor at Université Laval.

Summary of recommendations

Recommendation 1: Integrate part of the architecture internship into the university curriculum

Recommendation 2: Expand the range of experience eligible for the internship program to include experience in the public sector and in academia

Recommendation 3: Make sustainable development a cross-cutting and overarching principle in architectural education

Recommendation 4: Encourage interdisciplinary collaboration during the professional master's program to better prepare students for project constraints

Profile of the OAQ

The Ordre des architectes du Québec (OAQ) controls access to the architectural profession and regulates its practice in the province. Its membership includes more than 4,400 architects and close to 1,400 architectural interns. Created in 1974, the OAQ oversees the application of the provisions of the Professional Code and Quebec's *Architects Act* and regulations.

With a view to protecting the public, the OAQ is committed to becoming a key agent promoting architecture and the architectural profession and, as such, it intervenes in all relevant forums to shape the course of events and influence political directions and all issues affecting the practice of the profession and the quality of the built environment.

The OAQ constantly strives to find innovative and effective solutions to contribute to the improvement of architectural practice. It promotes the acquisition and maintenance of a high level of competence among its members in order to achieve a distinctive built environment that is a source of collective pride and identity.

Within the association and among its members, the OAQ defends the values of altruism, cooperation, openness and harmonious integration of differences.

Introduction

The previous CACB conference in 2014 identified a number of findings suggesting that the continuum between initial architectural education and professional practice needs to be improved. There was some concern that students lacked practical skills and understanding of the business context, while the importance of developing conceptual skills and critical thinking was not challenged - quite the opposite. Eight years later, we believe that this discussion is still relevant.

To continue efforts to establish a stronger connection between university education and practice, this paper examines the possibility of requiring part of the internship to be completed during the course of studies. However, this approach entails revisiting the relationships between the stakeholders: associations, schools of architecture, practitioners and prospective members of the profession.

In the context of internships, we also propose allowing for the recognition of experience gained outside of architectural offices, particularly in the public sector and in academia, in order to increase the supply of jobs for interns while enhancing career opportunities in sectors that are struggling to secure the next generation of architects.

We also make recommendations for developments in the education of architecture students, particular in the areas of sustainability and interdisciplinary collaboration.

Challenges and recommendations

Internships

An internship is a key step for future architects that allows them to apply the knowledge they have acquired at university to their professional practice. Currently, in most Canadian provinces, the Internship in Architecture program only recognizes post-graduation internship hours (except for RAIC Syllabus students). However, in Quebec it is possible to complete a certain number of internship hours during university studies after earning 60 credits. To reduce the observed gap between architecture students' education and professional practice in its many forms, this situation should be changed to be consistent across all provinces with a view to promoting the mobility of applicants to the profession. A portion of the 3,720 hours of the Internship in Architecture program should therefore be completed while students are still working on their degree (minimum and maximum hours to be determined¹).

- The portion of the internship hours to be completed during the course of study should be integrated into the university curriculum, both at the bachelor's (after a certain number of credits) and at the professional master's level.
- The nature and duration of internship activities should be adjusted to students' level (e.g., a 35-hour unpaid observation internship at the bachelor's level and a 12-week (or 420-hour) paid integration internship at the master's level).²

We acknowledge that such changes would upset the established order. Currently under the responsibility of professional associations, the revamped internship would require additional efforts in terms of participation, consultation and adaptation from all stakeholders, i.e., schools, the professional community, associations and interns.

Recommendation 1: Integrate part of the architecture internship into the university curriculum

¹ The OAQ currently recognizes a maximum of 940 internship hours completed during the course of study upon earning 60 credits.

² Ministère de l'Éducation et de l'Enseignement supérieur, [Quebec Ministry of Education and Higher Education] *Les types de stages étudiants* [types of student internships] 2019.

Challenges for schools

Without necessarily setting up co-op programs where they would have to validate the internship sites,³ schools would ultimately have to allocate resources to facilitate student placement and to assess learning. This practice is encouraged in other areas, such as health.⁴ However, schools are not starting from scratch, since each offers some form of internship supervision during studies or is considering it, at least in Quebec (see box, page 8).

In Quebec, we also note that there is currently no placement service specifically for architecture. Nevertheless, the placement rate for master's graduates is very good: 90.9% according to the latest available data,⁵ a result that Quebec schools of architecture corroborate in the program reports they submit to the CACB for accreditation.

The assessment of the internship experience varies from school to school. Under our proposed approach, schools would be expected to be more systematically involved, ideally with the cooperation of the internship supervisor. In addition to providing their pedagogical expertise to the profession, universities could thus keep pace with internship site expectations (if not define them) and better prepare their students for these experiences. This would constitute a qualitative improvement over the system currently managed by the OAQ, which only considers the total number of internship hours per activity category.

We recognize that changing or restructuring the number of credits in a program of study is a complicated exercise for schools. Integrating the internship should therefore have a minimal impact in this regard. We therefore suggest allocating internship credits based solely on the written report rather than on the hours worked in the internship setting. For example, the written undergraduate internship report could be eligible for credit.

³ Canadian Association for Co-operative Education. *Co-operative Education Manual: A Guide to Planning and Implementing Co-operative Education Programs in Post-Secondary Institutions*, 2005.

⁴ Commission de planification de l'Université du Québec. [U de Québec planning commission] *L'Organisation des stages en milieu de pratique des programmes en santé et services sociaux des établissements du réseau de l'Université du Québec. [The organization of the health and social services programs of institutions in the Université du Québec network.] État de situation et recommandations*, septembre 2016. [Status report and recommendations, September 2016.]

⁵ Ministère de l'Éducation et de l'Enseignement supérieur. *La Relance à l'université – situation en emploi des personnes diplômées*, enquête de 2019. [2019 follow-up survey on the employment situation of university graduates]

Box 1 – Current supervision of internships during studies in Quebec

Situation at McGill University⁶

The McGill University School of Architecture program requires a minimum of 12 weeks of experience in an architectural firm. This is a non-credit requirement. However, in its 2018 visit report,⁷ the CACB expressed some concerns about the supervision provided in this regard as well as the lack of evaluation. On its website, the School indicates that students are responsible for finding their own work placements. However, it posts job openings for this purpose, arranges visits by potential recruiters to the institution, and endeavours to employ students on campus when circumstances permit.⁸

• Situation at Université de Montréal⁹

In its latest accreditation report (2019), the Université de Montréal's École d'architecture indicates that it informs new bachelor degree cohorts of the opportunity to enroll in the OAQ professional internship once they have completed 60 credits. However, an internal survey reveals that few third-year undergraduate students take advantage of that opportunity. In contrast, 58% of master's students registered as interns (*stagiaires*) with the OAQ. The School states that because the internship is the responsibility of the OAQ, it leaves it up to students to find their placement. However, an elective course is offered at the undergraduate level to help them comply with the administrative requirements of internship placements. The report also notes a lack of understanding among students about internships and professional practice. Furthermore, 80% of students support adding a compulsory two- to four-month internship between the undergraduate and graduate levels, provided that the School takes responsibility for administering these internships. Deeming this option too demanding to implement, the School's program self-assessment committee suggested instead the possibility of introducing a two- or three-day observation period at the bachelor's level, "which would also have the advantage of putting less pressure on internship placements."

• Situation at Université Laval¹⁰

The École d'architecture at Université Laval noted that it had considered the possibility of offering a co-op program in 2002, but that this project was deemed "unrealistic" by the institutional program evaluation committee. The school said that it had initiated discussions with the OAQ to promote an internship between the undergraduate and graduate levels and that it wanted to increase contacts between its students and the construction industry. It also pointed out that a "large number" of its master's students and students were listed in the OAQ's register of interns.

⁶ McGill University School of Architecture. *Architecture Program Report Submitted to the Canadian Architectural Certification Board*, March 2018

⁷ CACB. *2018 Visiting Team Report Master of Architecture Program, McGill University*, March 2018.

⁸ Peter Guo-hua Fu School of Architecture. [Work Experience Guidelines](#). Website accessed on March 31, 2021.

⁹ École d'architecture de l'Université de Montréal, *Rapport présenté au Conseil Canadien de Certification en Architecture (CCCA) en vue du maintien de l'agrément du programme de Maîtrise en architecture [Report submitted to the Canadian Architectural Certification Board (CACB) for maintenance of accreditation of the Master of Architecture Program]* Volume 1, 2019.

¹⁰ École d'architecture de l'Université Laval. *RPA : Rapport du programme en architecture soumis au Conseil canadien de certification en architecture*, [Architecture program report submitted to the Canadian Architectural Certification Board], Document A, Parts 1, 2 and 3, September 10, 2018.

Challenges for the professional community

A mandatory internship introduced earlier in the course of studies would involve the professional practice community more fully than is currently the case. Supervising interns already requires a time commitment from veteran architects who must also focus on managing their other duties and responsibilities. Under the proposed changes, they would be required to take on even more novice interns than graduating ones. The impact on the total number of internship applications has yet to be assessed. The measure would not affect the number of individuals concerned as much as the stage of learning at which they would be starting the internship.

Fortunately, there are already incentives in place for hosting interns. The professional community will need to determine whether these measures are sufficient in light of the proposed changes.

Box 2 - Incentives for hosting interns in Quebec

- **Tax credit for workplace internships**

This program is for Quebec organizations that host full-time students enrolled at any level of an education program for a total duration of at least 140 hours. Eligible expenses are those related to the remuneration of interns and staff supervising them. The basic rate is 24 to 40% and may be increased up to 50% as of the third taxation year for which the organization is entitled to the credit. Increases are also provided for certain regions and categories of internship participants.¹¹

- **1% for training**

The cost of supervising interns can also be included in the calculation of the 1% of the total payroll allocated to training.¹²

- **Recognition of continuing education hours by the OAQ**

The OAQ recognizes support of interns as an eligible activity under its regulations on mandatory continuing education. This support corresponds to category 2 activities (*Offering an activity described in category 1 as a lecturer, trainer or preparer*), in which a maximum of 23 hours per continuing education cycle is permitted.¹³ The OAQ may consider increasing the eligible hours in this category if there are new requirements for interns.

¹¹ Revenu Québec. [Tax Credit for on-the-job training - student enrolled full-time at a recognized educational institution](#). (In French) Website accessed on March 31, 2022.

¹² Ministère du Travail, de l'Emploi et de la Solidarité sociale [Quebec ministry of labour, employment and social solidarity] *The Act to Promote Workforce Skills Development and Recognition*. 2021.

¹³ OAQ. [Obligations réglementaires](#), [regulatory obligations] - in French. Website accessed March 31, 2022.

Challenges for emerging architects

The requirement to complete part of the internship during the course of studies may have adverse effects. The market does not always have enough internship positions due to economic fluctuations or the availability architects able to supervise internships. In this context, less experienced interns may find they have fewer opportunities. In a cyclical industry such as construction, a loss of interest in the next generation due to a lack of internship positions could, in the longer term, result in a labour shortage during periods of increased activity, such as the one currently experienced by the Quebec construction industry.

While it cannot guarantee everyone an internship, it would be in the interest of the profession to address the difficulties caused by fluctuating supply and demand. The literature on similar realities in other fields may offer some insights.¹⁴

Initially, we believe that broadening the kinds of experiences eligible for internships to include those in the public sector and at university would help offset the lack of jobs during periods of low activity. It would also promote public sector jobs in architecture, where there has recently been a lack of new talent, at least in Quebec.

As a result, project analysis, program management and property management in school boards, municipalities, or the provincial or federal public service should be included among the experiences eligible for the internship program, as should contributions to university research teams.

In addition, quality internships must always be available. This means employment situations where the supervising architect is effective in their supervisory role and where the tasks required are challenging and consistent with the learning objectives. The associations of architects, educational institutions and the professional community must be involved in this process. Student retention and professional excellence are both at stake.

Recommendation 2: Expand the range of experience eligible for the internship program to include experience in the public sector and in academia

¹⁴ Commission de planification de l'Université du Québec. *L'Organisation des stages en milieu de pratique des programmes en santé et services sociaux des établissements du réseau de l'Université du Québec. État de situation et recommandations*, septembre 2016.

Support from architectural associations

To collaborate with the other stakeholders in implementing these new internship arrangements, the associations of architects could leverage their leading role in maintaining excellence in training and skills development:

- By making their members aware of the profession's expectations regarding the hosting of interns (based on their competency framework, as appropriate).¹⁵
- By promoting the competence of architects supervising internships through training and the sharing of good practices in intern supervision.
- By documenting the internship needs and expectations of architecture students and the professional community with a view to better defining the information tools available.
- By creating a database of internship opportunities for schools of architecture. These sites should meet the criteria set by their association, such as having at least one of their architects complete an intern supervision course and being functionally up-to-date in terms of technology.
- By taking steps to create new incentives for supervising and mentoring interns, as appropriate:
 - lobbying the various levels of government
 - creating their own incentives within their means.

¹⁵ Ordre des architectes du Québec, *Référentiel de compétences lié à l'exercice de la profession d'architecte au Québec [OAQ competency framework for professional architects]*, 2017, pp. 110-111.

Box 3 - Some suggestions for a common internship culture¹⁶

For the professional community

- Promoting the role of internship supervisor in the organization (e.g., by creating a specific title for such supervisors)
- Reducing workload or otherwise compensating supervisors

For professional associations

- Promoting mentoring of interns as an integral part of the professional practice (promoting a professional culture of preparing the next generation of architects)
- Providing mentoring for architects who are new to internship supervision in addition to training and information on this responsibility

For schools

- Establishing peer training activities in the syllabus (e.g., mentoring of undergraduates by graduate students) to instill a culture of knowledge transfer

For all stakeholders, in collaboration

- Identifying the tasks to be completed by students of different levels during the internship (or developing model job descriptions)
- Negotiating an internship agreement between the school, employer and intern to establish compensation terms and learning outcomes appropriate to the degree level (the associations could provide sample documents)
- Conducting a joint assessment of the learning experience by the school, internship site and interns

¹⁶ LECLERC, Bernard-Simon *et al.* *Incidatifs et obstacles à la supervision des stages dans les établissements de santé et de services sociaux de la région de Montréal : Une responsabilité partagée, [Incentives and obstacles to internships supervision in health and social services facilities in the Montreal area: A Shared responsibility]* September 2014; MEES. *Stages étudiants, programmes professionnels, techniques et universitaires, portrait, enjeux et pistes de solutions [Student internships. Vocational, technical and university programs. Overview, issues and possible solutions]* 2019; Canadian Association for Co-operative Education. *Co-operative Education Manual: A Guide to Planning and Implementing Co-operative Education Programs in Post-Secondary Institutions*, 2005.

Length of internships

A review of OAQ data on the length of internships for individuals trained in Quebec shows that such work experiences frequently exceed the prescribed two-year period to complete the 3,720 hours. In 2018-2019, according to the latest available data, most new architects (58) completed their internship after four years, and a high percentage of them (42) needed five to seven years. Almost as many (41) completed their internship in three years, and a small minority (3) completed it in two years. Of particular concern is the finding that a significant number (20) of these architects were interns for very long periods of time: over nine years.

Even though the OAQ places a five-year limit on internships, circumstances beyond the interns' control may explain why an extension is granted (illness, parental leave, difficulty finding an internship placement where it is possible to accumulate hours in each category, failing the ExAC).

It is debatable whether a mandatory internship during studies would address the extended internship issue. At the very least, this points to the need to document interns' experience in this regard.

Learning content

Sustainable development

As we know, the concept of sustainable development has evolved considerably since it first emerged in the 1980s. In the construction industry, it has long been associated with so-called eco-friendly or “green” materials and energy efficiency measures. The environmentally responsible location of buildings and the origin of materials are also considered to limit the impact of transportation. Many certifications assess these aspects in architectural projects using a system that overlaps with building regulations.

However, the current climate emergency urges us to challenge this way of seeing sustainable development as a "plus" in favour of consciously examining architecture's impact on the planet's resources. Will we need to stop new builds and focus on retrofitting existing buildings? Integrate life cycle analysis into all projects? Expedite the certification of new practices through systematic post-occupancy assessments? Such questions are becoming increasingly relevant, and architects must contribute to the debate with the intelligence and critical thinking skills for which they are known.

The CACB's accreditation requirements currently include several sustainability criteria. One of these is part of the program performance criteria, *PPC 3. Global Perspectives and Environmental Stewardship*. The others are part of the student performance criteria: *B5. Ecological Systems*; (*B = Culture, Communications and Critical Thinking*) *C4. Envelope Systems* (*C = Technical Knowledge*); *C5. Environmental Systems*, as well as *D1 Comprehensive Design*. However, given the importance of the climate crisis, we believe it is critical to further consider the real effects of these criteria on graduates' ability to have an impact on the sustainability of the built environment. Requirements could probably be better defined and learning outcomes better assessed. Above all, sustainable development must be integrated into training, not just as one among other criteria, but as a cross-cutting and overarching principle in every educational activity.

We can no longer rely on continuing education to develop architects' awareness and skills in this regard. The next cohorts must acquire a common culture that contributes to the strengthening of the role of the architect as an agent of awareness. It is no longer about doing what is right but what is absolutely necessary.

Recommendation 3: Make sustainable development a cross-cutting and overarching principle in architectural education

Linking with practice

Quebec's schools of architecture clearly want to put their students in touch with the reality of professional practice. They all ensure that a significant portion of their teaching staff have a practical background, they all offer seminars with practising architects, and they all are making progress in their own way with their integration strategies (see box, page 8).

Currently, the CACB students performance criteria for professional practice relate to the *understanding* of legal and organizational aspects of architecture. According to the most recent visit reports consulted,¹⁷ the CACB considers this objective to have been met by the three accredited schools in Quebec. The problem lies in students' *ability* to meet the "Comprehensive Design"¹⁸ criterion, despite the efforts described by the schools to address this issue in the design studios. This was true for the schools of architecture at Université Laval and McGill. In 2021 the CACB considered the "Comprehensive Design" criterion to be met at Université de Montréal.

These findings are consistent with those of the OAQ indicating that interns seem to be largely unaware of the constraints associated with architectural projects. This situation leads us to believe that we must continue to ponder the degree to which students are prepared for the tasks that will be required of them in the internship setting. This preparation needs to more fully integrate the various constraints to which architecture firms are subject in the context of their projects, including costs, deadlines, client needs, compliance with specific programs, teamwork and technical and regulatory aspects.

We also believe that future architects need to be better prepared to work in interdisciplinary collaboration, e.g., with structural, mechanical or electrical engineers, professional artists and programming or building regulation specialists. Schools already offer interdisciplinary workshops. We suggest that the frequency, level of complexity and nature of the learning outcomes for these activities be more closely aligned with the reality of the practice. This aspect should be implemented primarily during the professional master's program, once students have had the opportunity to become familiar with the fundamentals of their own discipline.

¹⁷ CACB. *Rapport de l'équipe de visite 2019, programme de maîtrise en architecture de l'Université Laval*, March 2019; CACB. *2018 Visiting Team Report: Master of Architecture Program, McGill University*, March 2018; CACB. *Rapport de l'équipe de visite 2021, programme de maîtrise en architecture, École d'architecture, Faculté de l'Aménagement, Université de Montréal*, March 2021.

¹⁸ "The student must demonstrate an ability to produce an architectural design based on a concept, a building program, and a site which broadly integrates contextual factors, structural and environmental systems, building envelopes and assemblies, regulatory requirements, and environmental stewardship." *CACB Conditions and Terms for Accreditation for Professional Programs in Architecture*, 2017 Edition.

Recommendation 4: Encourage interdisciplinary collaboration during the professional master's program to better prepare students for project constraints

Conclusion

Promoting dialogue and strengthening a culture

In keeping with the continuum sought by the CACB, especially if the terms and conditions are to change, education and internships in architecture will require a more dynamic interface between the associations, schools of architecture, the professional community and applicants to the profession. While the current CACB-led exercise provides an opportunity to do this, the fact that it occurs every five years requires stakeholders to re-engage with the issue each time, especially if their representatives have changed. Other discussion forums or communication channels could be created to facilitate ongoing and more frequent dialogue.



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ISSUE PAPER 34

Getting on the Path to Licensure

Submitted by

**Afsaneh Asayesh, on behalf of
Becoming Architects Canada**

GETTING ON THE PATH TO LICENSURE

June 24, 2022 | CACB Conference - Architecture Continuum: Collaborate, Educate, Integrate

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1. INTRODUCTION

The 2022 CACB Conference theme is “Architecture Continuum: Collaborate, Educate, Integrate”, with the goal of exploring “... the career trajectory of the architect from early discovery to formal education, internship, examination, licensure, and lifelong learning through practice and continuing education.”

This paper will examine the landscape of pre-licensure for individuals educated and/or licensed in International countries other than the US and members of the Canberra Accord. Our research indicates that the issue of getting on the path to licensure is a stumbling block for many individuals who come to Canada with the goal of becoming architects. Individuals who are able to meet all of BEFA’s requirements form a minority of applicants (69 out of 296 International applicants in 2021 = 23%)¹. The remaining 77% are faced with navigating a challenging landscape of options such as Syllabus, CACB Certification, or going back to school - all of which entail significant time and financial investments in order to become an architect. It is not surprising then that many choose to work as technologists or switch careers altogether.

This loss of potential architects concerns us because as a country of immigrants, Canada and our profession rely on the influx of migrants for growth and sustainability. Therefore, it is essential to focus research on how to support, further educate, and integrate this vital group of individuals.

Canada is faced with a steadily declining birth rate averaging .735% since 2018². Immigrants comprise 75% of our population growth and almost 100% of our labour force growth³ - making us heavily reliant on this influx of educated individuals for filling jobs and growing the economy. Architecture is no exception. According to the OAA’s 2022 Demographics survey, 73% of respondents are immigrants.⁴ While we have not found surveys for other regulators’ percentage of immigrant membership, reasonable extrapolation can be made by looking at Canada’s most populous and immigrant-rich provinces : Ontario, Quebec, BC and Alberta⁵. CALA’s 2019 National Demographic Summary put the total number of licensed architects in Canada at just over 10,000⁶. This number included 3769 architects in the OAA, 3437 in the OAQ, 1593 in AIBC, and 684 in AAA for a total of 9483 (or 95% of the total number of architects) in provinces known to attract the highest percentage of immigrants.

These statistics effectively illustrate the reality that the sustainability of the architectural profession in Canada mandates we provide the clarity and support necessary to ensure that as many immigrants with architectural qualifications as possible achieve licensure.

¹ 2022 CACB report to ROAC

² <https://www.macrotrends.net/countries/CAN/canada/birth-rate>

³ <https://www.canada.ca/en/immigration-refugees-citizenship/news/2021/12/canada-welcomes-the-most-immigrants-in-a-single-year-in-its-history.html>

⁴ OAA Demographics Survey 2022

⁵ <https://www.worldatlas.com/articles/canadian-provinces-territories-by-immigrant-population.html>

⁶ CALA 2019 National Demographic Summary

2. BACKGROUND

The last CACB Conference was held in Saint-Sauveur, Quebec in the fall of 2014. It was attended by a nexus of interns who had met earlier that year at the RAIC Conference in Winnipeg, and begun to engage and discuss issues encountered as they worked through the IAP Program. It was at the closing event of this conference that they decided to found Canada's first advocacy organization for interns.

After winning the 2015 RAIC Foundation prize, this group went on to found RAIC Emerging Practitioners (RAIC EP) and made great progress over the ensuing 5 years in providing a voice for interns, syllabus students, and others on the path to licensure. As the RAIC EP we accomplished a great number of initiatives - carrying out vital research, disseminating information, organizing nationally broadcast webinars in support of ExAC prep, creating ConEd Sessions, and holding design competitions.

Following RAIC's discontinuation of the EP committee in fall of 2020, key members of RAIC EP working together with former CASA executives decided to carry on the work of advocacy and support for licensure by founding BAC-DAC (Becoming Architects Canada-Devenir Architecte Canada).

BAC-DAC is an independent national non-profit advocacy organization dedicated to supporting those who are working towards becoming architects in Canada. BAC-DAC was launched in June of 2021 and its establishment was supported by key organizations across the field of architecture in Canada, including **ROAC**(The Regulatory Organizations of Architecture in Canada), **BAIDA** (Black Architects & Interior Designers Association), **CASA** (Canadian Alliance of Students Association), **Canadian Architect, Collectif**, **RAIC** Edmonton Network, **TSA** (Toronto Society of Architects), **CAFÈs** (Canadian Architecture Forums on Education).

For foreign licensed architects/architectural graduates, one of the biggest obstacles that has been voiced to us⁷ is a lack of understanding of how to GET on the path to licensure in Canada (ie. not understanding what the options are and who to talk to to get more information). Therefore, we struck a "Getting on the path to licensure" committee aimed at supporting foreign licensed and/or educated architects and helping them better understand the process of licensure in Canada. Tasked with conducting research on and providing support for this issue, this committee was among the first to be struck and has been active in engaging with the issue.

This paper represents a snapshot in time of our on-going research into the myriad social, economical, cultural, and professional issues faced by those who would become architects in Canada. The objective is to identify and better understand the obstacles faced by foreign educated/licensed architects, their specific needs, the current resources available, and the additional sources of support needed to support and empower the numerous qualified "Becoming Architects" who journey to our mosaic .

⁷ BAC-DAC Launch Event Findings : <https://www.bac-dac.ca/>

3. RESEARCH :

3.1. Challenges faced by foreign educated/licensed architects

As previously mentioned, “Getting on the Path to Licensure” was one of the first BAC-DAC committees to begin work. This committee held a Webinar in November of 2021 targeting foreign educated/licensed professionals. The Webinar was attended by a CACB representative, and included brief presentations by BAC-DAC and CACB followed by breakout discussions. This event and our Launch Event both targeted feedback from attendees as to issues they were facing and initiatives they were interested in our organization offering. Some of the main themes which emerged are categorized and summarized as follows :

3.1.1. Bureaucracies

The disconnect between Federal and Provincial/Territorial governments, as well as between governments and regulators/associations means that few individuals come to Canada with clarity as to the hierarchy of the profession, where they will land within it, and the legislation governing use of the title “Architect” with its attendant penalties. The limited presence of the profession within the process of immigration means that many individuals find themselves unsure as to which path to pursue to licensure, how long this journey may take, and what the attendant costs are. This leads many potential architects to question the feasibility and value of licensure.

Unfortunately, much of the professional information supplied by governments during the process of immigration is vague at best, and irrelevant at worst. The situation is worse if you come to Canada on a work permit, because then the Federal Government has no purview or obligation to offer any support. Additional bureaucratic obstacles include :

3.1.1.1. Provincial/Regulator Level Concerns:

- i. Currently do not allow permanent residents to be on council (i.e. the OAA), so there is a barrier for immigrants to get on council and have a voice,
- ii. There is a lack of guidance and mentorship. Many regulators don’t have lists of available mentors even for those in the IAP Program; when there is such a list, it is often outdated,
- iii. Without connections, it is difficult to decipher the options and make informed decisions, so there is a great deal of confusion,
- iv. There are no foreign trained architect reps on regulator councils.

3.1.1.2. Academic Certification/Accreditation Concerns:

- i. Difficult to get university calendar (some people can be denied just for this, which doesn't really describe much in terms of their education and training)
- ii. Need to match which course falls into which category that CACB is asking for, so that takes time and can be difficult to verify
- iii. All or nothing situation with BEFA experience requirement - nothing less than 7 years is acceptable

3.1.2. Cultural Obstacles

These begin with language - mastery of a language requires understanding of the culture, current issues, prevailing values, and social mores. Being a visible minority, styles of dressing, social interactions, speaking with an accent, understanding a joke in time to laugh all impact an individual's self-esteem and confidence, which in turn affect their agency in terms of self-advocacy, asking questions, making sure they understand the answers, not being too timid to ask follow up questions, not giving up, etc.

3.1.3. Professional Barriers

3.1.3.1. Certification Concerns:

- a. Lack of understanding of the process, how to get started and what the options are for path to licensure (and lack of support to navigate path)
- b. Unclear about NAFTA and other Mutual Agreements if you were educated even partially in another country
- c. BEFA program requirements and structure unclear
- d. Lack of support groups or access to others who have been down these paths to help each other out
- e. Unclear what is path for technologist to become licensed

3.1.3.2. Cost Concerns:

- a. Unclear about CACB costs and/or are concerned about costs associated with BEFA vs other paths
- b. \$1800 just for CACB to look at foreign architect equivalence
- c. Having to work for little or no salary
- d. Time consuming and expensive process

3.1.3.3. Systemic Bias Concerns:

- a. Firms have bias - often ask for Canadian Experience so if you don't have this you have little chance of getting an interview. As a result, many are forced to "volunteer" or work for a nominal wage in order to gain experience.
- b. Age or being "overqualified" by having worked on larger projects in country of origin
- c. Lack of understanding of the BEFA program amongst architects so firms are more comfortable hiring people from the IAP program vs BEFA
- d. Resume approach in Canada different than some other countries, especially for architecture, so applicants may be setting things up in a way that is detrimental to finding a job
- e. Some employers take advantage of newcomers unsure of their worth and value within the profession by having them work as "volunteers" in order to gain a foothold within the Canadian job market.

3.1.4. Need for Advocacy

Accommodating to a new country is accompanied by a real sense of fatigue, despondency, and inadequacy, and the combination of the above issues plus lack of networking and mentorship opportunities often leads to isolation. Not having contact with others who are now navigating or have already navigated this daunting task leads to a loss of perspective as well as issues of uncertainty and insecurity.

As we know, Becoming an architect in Canada is a challenge for those educated and trained here. Given the additional obstacles faced by would-be architects from other countries, advocacy and networking are vital to their success.

3.2. CASE STUDIES

As part of our research, we are taking a closer look at some of the individuals who have participated in our organization and look to us for support and leadership. Not surprisingly, the majority of foreign educated/licensed professionals we have encountered originate from the middle east. Social and political upheavals, wars, and economic hardship drive this brain drain.

3.2.1. Sogol Rabeie, Iran:

Background

My name is Sogol Rabeie. I came to Canada 2.5 years ago on an open-work-permit, just before COVID started. I was not aware that I had to be an registered intern architect to work in my field. I had to go through the process of CACB to get my degree accredited.

My path to Licensure

I didn't know anyone in Canada, so I started making connections on LinkedIn. No one was mentioning CACB, either they didn't know about it or it was too expensive to even mention it. Many people suggested a program called IPLAN by JVS Toronto, but I couldn't register since I was on a open-work-permit. I even asked everyone about CACB and OAA, but they all preferred to work as a technologist and didn't bother with getting licensed.

Regardless, I decided to apply to CACB. It took more than 6 months to get my CACB certification because of COVID. Plus, it costs too much, especially for a newcomer. After I got my CACB certificate, I registered for OAA as an intern.

Finding a job

Once I was an OAA Intern Architect, I got more job interviews and call backs. After a year of being in Toronto, being alone and isolated due to COVID, I finally found a job as an intern architect. But the problem was that I was working for free. It was really challenging for me as a

newcomer not to have a job for a year and even when I got one I wasn't getting paid. Nevertheless I was thankful to start my journey. It goes without saying that every employer was looking for Canadian experience, and the volunteer work I did helped a lot with that. I took a lot of online courses for skills that I already had to obtain the certifications for my resume. The problem was that they needed the experience that I had in my home country, but they didn't accept the certificates I already had. After 6 months of volunteer work I was finally able to find a real paying job.

IAP Program

I was lucky because I was working in a smaller company and was able to collect hours in the categories that other people struggle with. My first supervisor helped me with finding my first mentor, but I had a hard time reaching her. So I tried getting help from OAA to find a new mentor, but the problem was that the list that they gave me was outdated and it didn't help me much. Therefore my second supervisor helped me find my second mentor, which was a big help.

Advocacy

I got a lot of help from the Iranian community in my path. They have online forums, and they help you with the process, but the problem is that it's not diverse. I'm sure every community has some kind of support system but I think that we need a source for everyone. A source that is legit and you can trust 100%.

3.2.2. Hasan Elghayesh, Egypt :

Background

My name is Hassan Elghayesh. I am a registered intern architect with the OAA. I will talk about my prior experience in my home country and my experience so far as a Foreign Licensed Architect maneuvering my way to licensure.

My home country is Egypt. I did my Bachelor's Degree in Cairo. A bachelor degree in Architecture is 5 years after which you are automatically registered as an Architect. I worked briefly as a technical office Architect. I then shifted my career to teaching, I taught undergraduate architecture courses for two years. I received my Master's degree from University of Liechtenstein in 2017. It was a great experience but I came out of it more interested in practicing than teaching. I returned to Egypt to work as a project architect for 2 years.

I applied to come to Canada as a federal skilled worker. It is a point-based system in which many factors are taken into consideration (Profession, Age, Level of Education ... etc.) Once your points are calculated you are added to the pool of people hoping to immigrate to Canada. The Canadian government then chooses the candidates with the highest points in the pool. Once I was chosen, I started doing proper research on the profession in Canada. In the first few weeks, it was very confusing trying to find information. It was hard to believe that the process of becoming an architect is so long. As I mentioned before, In Egypt once you are done with your studies you can start practicing right away. This is the same as in Liechtenstein/Switzerland where I studied. I was so confused at this point that I was looking for

Architect jobs and applying for them not knowing that there is a long process of licensure in Canada. Only 4 months before coming to Canada I came to realize that I have to get certification and apply for intern architect jobs. I came to know about this from my own research on online forums of people applying to come to Canada. These forums held more valuable information than the Canada immigration website. The forums were categorized in a way that was easy to navigate. I navigated to the architecture sub-forum and the path to licensure was described there by people who had arrived in Canada and had started the process.

My path to Licensure

There were a number of options for FLA. In My case, I did not have a lot of experience so I was left with only one option; to apply for certification from the CACB, register with a provincial Association and fulfill the hours, and take the ExAC. The first challenge was securing the money to apply for certification. When applying to come to Canada, you have to hold about 12,000 dollars in your bank account to prove you are able to support yourself for your first few months in Canada. So with this 12,000 dollars held up, securing 3,000 dollars more was very hard for someone who makes a wage in Egypt. Another challenge was getting my documents from my undergraduate University in Egypt. Record keeping is not the best, so I basically had to go every day and try to work something out with the administration of the university to have the papers sent. I ended up bringing the document with me to Canada and taking it to the CACB office in Ottawa, this set me back quite a bit and I was looking at a 6 months wait for certification. In retrospect, I think the problem was the lack of information on the Canada immigration website where the resources to help us find jobs do not include information specifically for architects. I thought there would be synergy between immigration Canada and CACB. Immigration Canada sent emails all the time about how to get a driver's license, how to deal with the weather, how to find lodging. Yet they did not communicate with me on what I need to do to become an architect in Canada.

Finding a job

The situation was complicated. I had arrived in Canada, was waiting for my certification and could not practice architecture. I had to find employment in any way. I started working in a coffee shop and also secured a job as a bank teller. As a newcomer, I was also connected to an employment agency for newcomers 'OCISO'. I went to meet them and they told me they had a new program called the 'Foreign Credential Recognition Program' that would help me as an architect. The program was to assign a mentor from the profession to each newcomer. On our first group meeting I realized it was also for accountants and lawyers. They were able to secure a mentor for each person except me - it was hard to find an architect interested in mentoring a newcomer. During that same time, I met with a number of Egyptians. Some were architects in Egypt and shifted careers in Canada; their advice was to not pursue architecture and to get a PMP and be a project manager. They said it was not worth it to spend much time and effort on certification and licensing. Many times, I doubted my ability to continue with the process of certification. It took effort and determination to stay focused on becoming an architect.

After 6 months I got my certification. was able to register with the OAA and use the OAA website to look for jobs. I was not lucky on my first round of applications in Ottawa and Toronto. On my second round of applications, I started applying to Offices all over Ontario. It was not ideal but I thought it would be less competitive and would be a good way to get a foot in then move to Ottawa or Toronto. It took a month before I was called for my first Interview. I was hired as an intern architect in North Bay. I did not ask for a good salary, I felt very insecure

about my abilities because my architecture experience did not seem to be relevant, and this insecurity affected my judgment. I know now I could have asked for more. I consider myself very lucky to have found a job. I was also lucky to have a mentor, an acquaintance who has been practicing in Canada since the early 2000s. We met one time before starting the job and we remained in contact by phone through COVID.

IAP Program

My experience in the architecture firm has been positive. I still aspire to move to a bigger office but for now I feel settled. My experience from Egypt has proven very helpful when it comes to Schematic Design and Design Development. There are no resources for FLA in our office but everybody is extremely helpful in sharing their expertise. I owe a lot to the technologists in the firm who instruct me in detailing, estimating and tendering. Detailing is one of the things I struggled with the most in Canada.

Challenges

My main concern is not getting a lot of one-on-one time with the Principal Architect. We are a small office and it is hard to sit down for a proper review of my designs. I think I am well on my way to licensing and should be done in 2 more years. I think a lot about my experience in Egypt and how it was dismissed. I wonder whether at one point FLA will be able to claim a certain amount of hours from their work in their home countries through a process that is reasonable and fair. Architects who do not qualify for BEFA have to start all over. I fall into that category and I am taking the longest route to licensure. What I realized is ... I have to be extremely determined to do it.

3.2.3. Ehsan Jahani, Iran :

Background

I migrated to Canada on the federal skilled workers program. I left Iran as a PhD student, with my master's degree from Oxford Brookes University in the UK. I held an architectural license back home, with more than 8 years of international experience. But all that didn't help much.

My path to Licensure

I had researched the path to licensure before arriving in Canada using the OAA website for 2 months by myself with no one to help me. After that I decided to go with the IAP program. Getting the CACB certification was the first and the easiest step for me, the challenges started after that. I had my CACB certification before arriving in Canada. But still no job, no mentor, no supervisor,... Even when I managed to find a job there were no proper working hours. I also faced challenges with OAA regulations and policies in regards to the time in IAP, and we all faced challenges for COVID.

Finding a job

I couldn't find a job in the architectural field for the first year, and none of the employment agencies referred to by Immigration Canada would help me, because I had no Canadian experience. So I decided to take the IPLAN program, but even after that I had to work for free for 8 months to open some doors in the market for myself and gain some Canadian experience.

Finding a mentor wasn't easy either. I managed to find a mentor at a workshop held by the OAA.

My experience at the workplace was not great. I felt like a slave, I had to work for free. On top of that I had to commute from Aurora to downtown Toronto out of the pocket as a newcomer.

IAP Program

Even though the projects were large, I was only able to log a handful of hours in each CERB category.

I had to jump from firm to another firm over and over to find the needed IAP hours for completing the program. One of the firms was an engineering firm, and the hours were not accepted by OAA.

Challenges

I met a lot of great people along the way, but I think too many policies and regulations made this profession like traveling to Mars. I wish I would have chosen to be an astronaut in Canada, I am sure that would be easier. My perspective is that the architectural profession is not well paid in Canada and all these policies make me think that it's not worth it. And all the resources for FLA are limited to the IAP Program. The amount of time and effort required for me to complete this journey has been a huge challenge, and an experience I hope I never have to repeat.



4. RECOMMENDATIONS

4.1. Who can help?

There are public and private, formal and informal entities which can coordinate efforts in order to provide the much-needed support include :

4.1.1. GOVERNMENTS

- a. Reach out to individuals as they go through the process of coming to Canada
 - i. Connect with the Federal government about reaching out to foreign educated/ trained architects
 - ii. Create videos about living/working in Canada (Federal Gov't has open-source website with general helpful videos for new immigrants) - these could also be live sessions
- b. Coordinate efforts between Federal and Provincial governments as well as Regulators in order to provide early outreach to back to foreign educated/licensed architects who are new to the country

4.1.2. PROFESSIONAL ORGANIZATIONS

- a. CACB
 - i. Help applicants network by connecting people with others from their university/country in order to provide them with guidance in completing their application
 - ii. Clarify what to do if you're missing a course (or just missing a couple of hours) - how do you complete these hours?
 - iii. Have a page for foreign educated/licensed individuals which lists the local/national organizations available for support along with a brief summary of what they offer
 - iv. Allow applicants to utilize experience garnered both outside of Canada as well as inside Canada towards credit hours
 - v. A positive measure implemented by CACB is that they have helped to streamline the application process by referring to existing records of applicants in situations where a new applicant shares the same educational background (same year/university)
- b. Regulators (ROAC)
 - i. Provide support to applicants in finding jobs
 - ii. Develop strategy to prevent firms don't take advantage of newcomers desperate for Canadian experience by having them work for free
 - iii. Liaise with CACB to provide contact and, potentially, mentorship as applicants go through the process of certification
 - iv. BC has a program to help guide professionals coming to Canada called the Broadly Experienced Applicant (BEA)

Program administered by AIBC⁸. ROAC currently has three committees : CACB, IRC (International Relations Committee), and CExAC. Having BEA offered on a national level through CACB would be a substantive measure of support.

- v. Include a page on regulator websites for foreign educated/licensed individuals which lists the local/national organizations available for support, along with a brief summary of what they offer. The TSA has one which could be emulated⁹.

4.1.3. ADVOCACY ORGANIZATIONS

- ii. Connect and coordinate with each other so that they are able to provide references to other organizations for additional support, training, networking, etc.
- iii. Assemble a list of frequently asked questions to clarify with CACB and disseminate this information
- iv. Hold events with members of the profession in attendance in order to provide opportunities for discussion and networking
- v. Have chat rooms or forums on their website for connecting, networking, sharing experiences and tips
- vi. Have a website page for educated/licensed individuals on which to disseminate relevant information
- vii. Address issues with getting hired
 - i. Explain what BEFA is and what the alternatives entail
 - ii. Help with Resumes/Portfolios via Workshops, a Tips Document, etc.

5. BAC-DAC initiatives

We recognize that as a national advocacy organization dedicated to promoting and supporting licensure, we will need to play a key role in promoting and incorporating our recommendations.

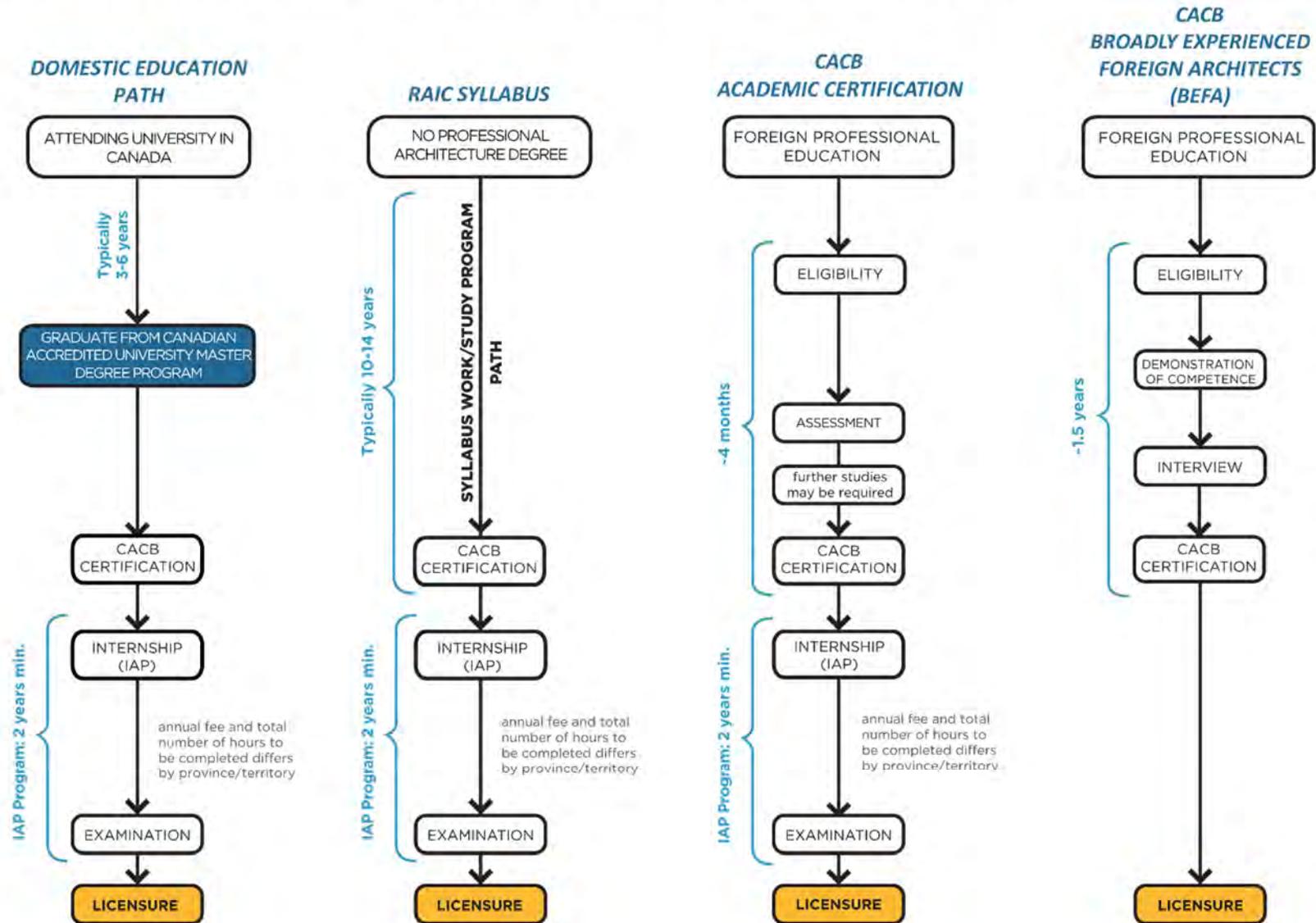
5.1. Current initiatives include:

- 5.1.1. Continuing the research which this paper is based on and presenting it as a Webinar with a workshop component
- 5.1.2. Virtual Resume Support/Networking Event Wednesday July 20, 2022
- 5.1.3. In-Person Architectural Networking Event in Ottawa, Sat, Aug 11, 2022
- 5.1.4. We are developing a “Paths to Licensure” diagram, with input from the CACB, RAIC and ROAC. This diagram is a visual summary of the alternative paths to licensure in Canada. We anticipate completing the review process and finalizing it for dissemination by the end of this summer.

⁸ <https://aibc.ca/registration/become-an-architect-aibc/alternative-qualifications/#:~:text=Administered%20by%20the%20AIBC%2C%20the,British%20Columbia%20under%20a%20Mutual>

⁹ <https://torontosocietyofarchitects.ca/resources-for-internationally-trained-architectural-professionals/>

PATHS TO ARCHITECTURAL LICENSURE IN CANADA



5.2. Upcoming initiatives:

- 5.2.1. Establish a presence on the Canada Immigration Website
- 5.2.2. Create a page on our website for International educated/licensed architects
- 5.2.3. Compile a listing of support/advocacy organizations by province
- 5.2.4. Present Webinars on topics such as the Building Envelope which will be useful to those with experience in different climates
- 5.2.5. Create a diagram to summarize the options for coming to Canada to pursue a future in Architecture (Study permit, open/closed work permit, Express Entry, Provincial Nomination, etc.)

6. CONCLUSION

The theme of an Architecture Continuum which requires collaboration, education, and integration applies as much - if not more - to the career of individuals who come to Canada with degrees and licenses from international countries. They come to us as older individuals, often with families to support, and are faced with competing with Canadian born and educated colleagues for a foothold in the profession. Their aspiration for a fresh start and a better life comes at great cost and encounters numerous and varied obstacles.

We are a nation which recognizes and acts on the need for the influx of immigrants in order to maintain population and economic growth. Our profession is faced with the reality that in order to sustain and grow, we need to institute broader and more effective measures to ensure the success of newcomers. We need to collaborate on further educating those who come to our shores to practice architecture - and we cannot restrict our efforts solely to those who already hold an architectural license. Rather, we need to institute a systematic network to attract, inform, and support Internationally trained and licensed individuals to become architects.