

Presentation Abstracts/Résumé des présentations

Farming elsewhere: Rural-Rural migration Dynamics and Environmental Knowledge in Ghana

Mohammed Abubakari, University of Saskatchewan

Globally, migration is a prevalent social phenomenon that shapes (rural) communities. As a result, the emerging migration scholarship has shown a strong interest in spatiotemporal dynamics that characterize migration at the origin and destination centers at different levels. When it comes to domestic types of migration, emerging migration studies appear to be unduly concentrated on traditional rural-urban movements. The patterns of rural-rural migration are frequently disregarded, despite their rising importance in some global regions, such as Sub-Saharan Africa (SSA), due to the increasing trend and ramifications of environmental (climate change) drivers in rural economies. This paper, based on both secondary and ethnographic primary data, seeks to contribute to the migration-sustainability literature by focusing on the nexus between the largely overlooked, rural-rural migration and environmental knowledge in Ghana, an SSA country where rural-rural migration in the form of north-south movements is entrenched: northern rural members continue to migrate to southern rural areas to engage in land-based activities (particularly farming). In doing so, the study illuminates rural-rural migration characteristics (nature, actors involved, drivers, origin and destination experiences, and livelihood situation) and its dynamic sustainability implications in terms of resource use and practice knowledge among the distinct cultural groups involved in order to provide insights into how community-based environmental knowledge (i.e. Traditional Ecological Knowledge, or TEK) can be conceptualized and mobilized for local sustainability initiatives.

Daily Meteorological Parameters and Cardiovascular-related Hospital Emergencies in Ibadan, Nigeria

Betty Adegebo, University of Ibadan

Fluctuations in daily and seasonal patterns of meteorological parameters due to anthropogenic climate change has been associated with increasing cardiovascular (CVD)-related health problems. In many tropical cities where climate change impacts on health are expected to be severe, little is known about this association. This study examined the impact of daily fluctuations in ambient meteorological parameters on frequencies of CVD-related hospital emergencies in Ibadan—a rapidly expanding Nigerian city. Daily CVD-related emergency admissions (N= 4,043) from 2011 to 2019 were compiled from the Accident and Emergency Department in the University College Hospital, Ibadan. Meteorological data including relative humidity (RH), minimum (Tmin) and maximum temperature (Tmax) were obtained from the Nigerian Meteorological Agency. Apparent temperature (AT) was calculated to evaluate the influence of thermal stress on frequencies of CVD-related emergencies. Time series analysis and Poisson regression model were employed for data analysis. The age of patients was 57 ± 17 years with more male patients (54.3%). Average Tmin, Tmax and AT were 22.8°C, 31.7°C and 30.1°C respectively while average RH was 76.9%. Increasing trends in daily RH and warmer daily Tmin and AT were observed from 2012 to 2019 with peaks in 2019, 2015 and 2017 respectively. Daily Tmax showed cooler trend from 2015 to 2019. Significant negative associations ($\alpha=0.05$) were found between frequencies of CVD-related hospital emergencies and Tmin, and Tmax, while a significant positive association was found with AT. Warmer ambient apparent temperatures increased hospital emergency admissions for cardiovascular diseases in Ibadan and can be escalated by climate change and rapid urbanization.

“To govern ourselves, we need our territory”: self-determination through conservation in an Atikamekw Nehirowisiw protected area, *Masko Cimakanic Aski*

Maro Adjemian-Baskerville, Memorial University

In collaboration with the Atikamekw Nation Council (CNA) and the Coooco extended family,

my doctoral research supports the establishment of an Indigenous Protected and Conserved Area (IPCA), Masko Cimakanic Aski. Masko Cimakanic Aski is an IPCA project that was initiated by the Coocoo extended family, who have been working for over 20 years to have their ancestral territory legally recognized by the Quebec government as a protected area. Since 2009, their efforts have been supported by the CNA. The Coocoo family and the CNA see the establishment of this IPCA as an act of resurgence and self-determination, and an affirmation of their rights and values associated with their ancestral territory. Although they continue to ask the Quebec government to recognize Masko Cimakanic Aski in order to protect the territory from forestry, they refuse the “politics of recognition” (Coulthard, 2014) and insist that the IPCA be established based on Atikamekw Nehirowisiw systems of knowledge and governance. They are currently elaborating their own management plan for the project, based on their vision for the IPCA. This vision is one of healing and restoration, cultural resurgence, and governance based on respectful relationships between humans and the land. Through a description of the history of Masko Cimakanic Aski and the current work being undertaken to elaborate a management plan for the IPCA, I explore the potential for the Atikamekw Nehirowisiw and other Indigenous nations to use the “colonial tool” of protected areas to protect space for Indigenous self-determination and resurgence (Houde & Camirand Lemyre, 2021).

Urban Mobility in Johannesburg: A Study of the Rea Vaya BRT System's Routes and Travel Patterns in South African Cities

Oforiwa Pee Agyei-Boakye, University of Minnesota Twin Cities

Since the early 2000s, African governments facing rapid urbanization have initiated urban public transportation reforms, notably the widespread adoption of the Bus Rapid Transit (BRT) system. This system has been introduced as a crucial reform to enhance the efficiency of existing Informal Public Transportation (IPT) in African cities. As a national priority, South Africa strategically bolstered its public transportation, culminating in the establishment of the Rea Vaya BRT system in Johannesburg, the first BRT system in Africa. The system's implementation followed extensive negotiations, displacing minibus taxis (Johannesburg's primary IPT) on routes incorporated into the BRT network. While BRTs have captured interest across African cities, prior studies have yet to delve into the bus routes and travel patterns post-negotiations shifting IPTs to BRTs. This study focuses on Johannesburg's Rea Vaya BRT system, analyzing the bus routes and travel patterns between its two phases. The research uses GTFS data to explore BRT route trends for Phase 1a and Phase 1b, evaluating factors like bus frequency, average travel time, time between stops, and peak BRT usage. Employing Geographic Information System (GIS), the bus routes General Transit Feed Specification (GTFS) data, and Johannesburg Household Travel Survey Data, this study examines Rea Vaya BRT route maps offering insights into system efficiency for urban mobility. The analysis aims to identify areas benefitting from the BRT system, those that have not, and locations necessitating additional investment in public transportation infrastructure. This research unveils potential insights into BRT system efficacy and equity in transport access in African cities.

A systematic review of barriers to and facilitators of early learning and childcare among Black children and families in Canada and the USA

Mary Ajayi, Shivani Jackson, Alhassan Siiba & Joseph Kangmennaang, Queen's University

Early Learning and Childcare (ELCC) services are essential social determinants of a child's well-being. ELCC services can increase a child's cognitive, behavioral and social development, ultimately shaping their life course trajectory. However, many barriers exist within the ELCC climate of Canada and the US, limiting marginalized communities' access to quality ELCC services. The objective of this systematic review is to investigate the barriers and facilitators that influence access to adequate early learning and childcare for Black children and families. Using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, 55 studies were reviewed to examine the common barriers and facilitators in accessing ELCC services for Black and racialized families living in Canada and the US. The barriers and facilitators identified

were grouped into four themes including familial context, types of care, socioeconomic factors and cultural competence. The factors of parental involvement, access to formal ELCC services, income level, parental educational level, parental employment, cultural competence and racism emerged as either barriers or facilitators depending on their existence and strength. The results of this study can advise ELCC service providers and policymakers in making the ELCC climate more equitable specifically for Black and other racialized communities.

Exploring Immigrants Experiences within The Transit System of Canadian Small and Mid-Sized Cities

Tolulope Victoria Akerele, Memorial University

My research examines existing transit policy frameworks with the aim of building inclusive cities and mobility systems for immigrants in Atlantic Canada. There is a paucity of research on how the structure of mobility systems in Canadian Small and Mid-sized Cities (SMCs) may impact immigrants' integration. This research approaches this gap from the perspective of transit experiences in Canadian SMC, focusing on St. John's, NL and Halifax, Nova Scotia, two Atlantic Canadian cities which are non-traditional immigrant destinations. It asks about immigrants' experiences within transit spaces and how municipal transit policy frames immigrant participation in transit planning, mobility, equity, and inclusion. This study takes a mixed-methods approach, combining policy document analysis and key informant interviews with an online survey and ride-along interviews. The aim is to contribute to the literature on inclusive mobility and mobility justice from the perspective of SMC, which is a non-traditional immigrant destination in Canada. Given the general consensus on the importance of immigration in Atlantic Canada, this research informs stakeholders of immigrant integration approaches to promote social inclusion among immigrants. The results offer valuable insights into the underlying motivations of the interactions between immigrants and the transit system. This research establishes the importance of enhancing immigrants' direct participation in the transit governance and planning process in Atlantic Canada. It argues that involving immigrants in transit planning will help inform transit policies while increasing Atlantic Canada's attraction and ensuring far-reaching impacts on immigrants' integration into Atlantic Canadian cities.

Projecting the impact of immigration on Canada's population centres

Yousef Khalifa Aleghfeli, Stein Monteiro & Daniela Ghio, Toronto Metropolitan University

Due to low population replacement rates and shortages in the workforce, the Government of Canada has historically pursued immigration as a way to spur population growth and labor force growth. However, while there are population projections of immigration at the federal- and provincial-levels, gaps exist in projection at the sub-provincial level. The study addresses gaps in existing projections by explicitly modeling for different categories of migrants (e.g, permanent residents, temporary residents) and different pathways of immigration (two-step immigration vs. one-step immigration) and accounting for demographic differences between Canada's census metropolitan areas and census agglomerations (CMA/CAs). The study explores different projection scenarios based on varying federal immigration targets, on differing provincial and sub-provincial retention rates, and on different transition rate assumptions from temporary resident status to permanent resident status. Initial findings compare projections scenarios for Canada's population centres under different transition rate assumptions, revealing several emerging gateway cities in Canada.

Transnational urbanism: Korea's blueprint in shaping Kuwait's South Saad Al Abdullah City

Jasmine Ali, McGill University

South Saad Al Abdullah City (SSAC) represents a groundbreaking venture in Kuwait's urban development as it was conceived in collaboration with the Republic of Korea. While the project is still unfolding, the authorities and collaborators ardently champion SSAC as a beacon for smart and eco-friendly urbanism, positioning it as Korea's premier smart-eco city export model to the Gulf. Drawing from the literature on

urban policy mobility and emergent new city models, this paper explores SSAC as an exemplar of ‘transnational urbanism’ and analyzes how the movement of ideas is carried out through the role of intermediaries and agents, models, and texts, and how these imported policies have mutated and adapted to local context-related characteristics (e.g., local governance, urban knowledge, and regulatory frameworks). Through the case study of SSAC, this paper raises questions about the swift embrace of external urban models and how they translate to Kuwait’s context, and on the complex interplay of actors and policies in contemporary urban mega-developments. This investigation seeks to enrich our understanding of Kuwait’s urban expansion strategies and shed light on the adaptation of ‘sustainable’ international urban models in shaping the future of urbanism in the Gulf region considered ‘off the map’ in geographical scholarship.

Fuelling the Blue Transformation? Exposing the Political Economy of the Fishmeal and Fish Oil Industry

Terhema Ambe-Uva, University of Ottawa

As the critical main ingredients in producing feeds for aquaculture, fishmeal and fish oil form the basis for current optimism about blue food or foods from marine ecosystems. Industry spokespeople and global summits have touted blue food as the future of a sustainable global food system. Yet, thus far, the literature exploring the opportunities and risks of the fishmeal and fish oil industry has largely overlooked or downplayed its blue growth impacts, specifically its ability to sustainably feed the most vulnerable now and in the future, and whether it challenges or reproduces unequal power relations. This paper addresses this gap by incorporating a global ecological political economy framework to identify and analyze the inherent trade-offs and material paradox regarding blue transformation. Drawing on a detailed review of primary and secondary sources on the fishmeal and fish oil industry, participant observation during the Ocean Decade Week in Barcelona, and ongoing semi-structured interviews with blue food actors in the Gambia, it argues that the depoliticization of blue food, not only distances socio-ecological harms and obscures the costs of governance solutions but forecloses viable alternative pathways beyond blue growth. In particular, the proliferation of fishmeal and fish oil factories in coastal communities is part of a broader process to overcome the accumulation crises resulting from increasing demands for sustainable protein. This process raises further concerns over a so-called fishmeal trap, frictions of consumption, heightened geopolitical dynamics, and technocratic modes of governance. These findings enrich and shape our understanding of protein politics.

Advancing Climate-Resilient Agrifood Systems with Gender-Inclusive Governance: A Strategic Review of the Evidence

Daniel Amoak, Western University

Dina Najjar, ICARDA

Achieving gender equality in the agricultural system is central to meeting global food security and climate change resilience. Yet, women’s limited voice in governance and decision-making impedes their ability to participate and benefit from the food system. Using a scoping review of the evidence, we explore two questions: 1) what are the barriers that hamper women’s voice and participation in AFS governance; and 2) what are some known approaches that amplify women’s voice and participation in decision-making in AFS governance at the community level? Results from the review show limited academic recognition of gender equality in agrifood systems, with notable gaps in the literature documenting women’s low voice and agency in AFS governance at the community level. Our findings reveal significant barriers alienating women in global food systems governance, reinforced by gendered norms and practices. These barriers manifest broadly in two forms: (i) through uneven access to agricultural inputs and strategies and (ii) through shaping local approaches to AFS governance. Using the reach-benefit-empower-transform (RBET) framework, we identified a range of social innovations and organizational strategies that strengthened women’s voice and agency in AFS governance. Based on these findings, we argue that promoting equal and positive gender norms, ensuring equal access to resources, and utilizing gender-sensitive and participatory approaches are crucial starting points for investing in women’s AFS governance. This investment is not only essential for

achieving gender equality but also for enhancing agricultural productivity, improving food security, and building resilience to the effects of climate change.

Creating De/Colonial Spaces: International and Indigenous Students Dialogue Program

Abu Arif & Valeri Pilgrim Memorial University

International students are at once invited and uninvited. Universities and colleges invite international students as temporary visitors, while from a decolonial perspective; international students are also uninvited visitors on Indigenous lands. Despite their temporary status in Canada, international students have a role to play in Reconciliation. Perhaps one of the most important roles for them is to learn about ongoing colonial violence against Indigenous peoples (Pete, 2016). This knowledge not only serves them to have a better understanding of genocide, ecocide, and epistemicide that took place in this land but also helps them to realize their entanglement with colonization. Scholars have shown their concern about campus internationalization strategies as a colonial project (Beck & Pidgeon, 2020; Ogden 2007). Internationalization practitioners have started to think about how to untangle colonial approaches from internationalization efforts (Knutson, 2018; Arif et al., 2022). In this presentation, we present findings from a two-day long dialogue session that took place in February 2022 between international and Indigenous undergrad students at Memorial University. From this initiative, we have learned that our work is not one event, it is an ongoing process involving shuttling between dreaming about a more just higher education space where diversity of onto-epistemologies is celebrated and negotiating with the colonial forces by building our capacities to do deeper work (Bhattacharya, 2019; Stein et al., 2020). The student testimonials told us we helped them build their stamina in their long journey to create different possibilities for themselves and in the lands where they live.

Assessing biomass resource potential near Pelican Narrows, Northern Saskatchewan

Silas Asante, Didar Islam & Bram Noble, University of Saskatchewan

Many Canada's northern communities continue to experience energy insecurity owing to energy disruptions. Local renewable energy has been identified as a potential solution to energy security challenges in many northern communities, including Pelican Narrow. However, there has been limited assessment of renewable energy potential through the application of geospatial techniques in northern communities due to limited data availability. Many external interests to advance local renewable energy in northern communities' face community resistance due to limited consideration of community contexts and values. As a result, there is a possibility that many northern communities may be left behind in the global energy transition. Community energy planning is slowly gaining traction in many northern communities to help communities identify their energy needs. This research purposely identifies key renewable energy resource potentials for local renewable energy resource development near Pelican Narrows, informed by community values and contexts. The research design comprises two main phases: (i) geospatial design to technically assess the biomass resource potential, and (ii) participatory mapping framework to integrate community values and constraints to biomass resource use near Pelican Narrows. Research findings indicate that there is considerable potential for local bioenergy development near Pelican Narrow, in considering community values and contexts. Research findings revealed that incorporating meaningful community engagement and participation in exploring local renewable energy options can positively influence community interest in and acceptance of community energy planning. The relevance of the research strengthens incorporating community values and contexts into community energy planning for many northern communities in the global north.

Repoliticizing Shared Responsibility for Wildfire Protection in Canada: Towards Wildfire Risk Social Contracts

Adeniyi Asiyambi, University of British Columbia Okanagan

As wildfire problems escalate in Canada, wildfire managers and stewards are centring the principle of shared responsibility for wildfire protection among the public, the state and all wildfire management stakeholders. Yet, academic studies and post-disaster inquiries often point to a disjuncture in expectations of shared responsibility between the public and the various wildfire management institutions. Scholarly efforts to understand this disjuncture often centre on behavioural, demographic and information-deficit models in which the public's expectations will be brought into alignment with institutional expectations through awareness campaigns. What is lacking is a perspective that sees shared responsibility as a political and contested idea that enrolls unequally powerful actors to negotiate wildfire protection obligations and outcomes. By putting power at the centre of the principle of shared responsibility, this paper advances the political ecology of wildfire risk in the Canadian context. It develops the notion of multiple wildfire risk social contracts as a tentative and dynamic instantiation of expectations of shared responsibility for wildfire protection. The paper outlines the conceptual and empirical implications of a social contracts approach to wildfire protection in Canada. It concludes by reflecting on the imperative of a social contracts approach while demonstrating how the approach can foster transformative actions around shared responsibility for wildfire protection in Canada.

Northern Communities and Municipal Solid Waste Management in Canada – A Focus on Northern Manitoba

Anderson Assuah, University College of the North

There are disparities in municipal solid waste (MSW) management between urban areas on the one hand, and rural, remote, and northern communities on the other hand. Communities in the former tend to have better services than the latter, because of factors such as inadequate infrastructure and facilities, and insufficient funding for programs and operations in the latter. This research examined MSW management in northern Manitoba municipalities (north of 53rd parallel) to gain insight into how waste is being managed, challenges and barriers, strategies to overcome them, and opportunities to improve existing systems. Semi-structured interviews were conducted with MSW managers and operators in the municipalities and staff from the provincial government that oversee waste management. The results show that recycling programs are non-existent in some communities and patronage is low for those that have them. Additionally, there are no established community-wide reuse and composting programs in communities. Moreover, locating and working with provincial waste management stewardship organizations poses challenges to operations. It is recommended that provincial waste management stewardship organizations and the province prioritize northern Manitoba communities because of their unique challenges, including isolation. Communities should also consider partnerships and collaborations, where possible, to pool resources together for their operations to reduce cost and learn from one another. Finally, communities need to deliberately embark on education and awareness creation campaigns about their programs and waste generally, to change attitudes and behaviours of residents about MSW generation and management.

Developing an assessment index for the cumulative impacts of mines on Canadian rivers at large scale.

Asokoghene Joseph Audu & Camille Ouellet-Dallaire, Memorial University

Aquatic ecosystem services, provided by Canadian rivers, such as water provision, fishing and flood attenuation are threatened by anthropogenic activities including land-use changes, damming, mining, and climate change. The connectivity of these river systems means that impacts are not confined to their sources but accumulate as they flow downstream. In this project, we focus on the far-reaching and long-lasting impacts of mining on river reaches. We aim to create an assessment index that highlights the effects of mining on river networks. This index will be applied using a cumulative approach from upstream to downstream for all Canadian rivers. The result, when mapped into the river network, is expected to highlight potential flow paths from the mines, indicating river reaches that could be prone to cumulative mining impacts on a Canadian scale. The project uses HydroSHEDs (Lehner et al. 2008) as the hydrological background data and the Government of Canada, Natural Resources Canada (NRCAN 2024) as the data source for producing

Canadian mines. By evaluating how far downstream the cumulative impacts of mining affect the river networks and visualizing these possibly at-risk rivers, this study will provide crucial insights for understanding cumulative impacts on the Canadian Watersheds. This research will also offer valuable knowledge for water resource managers and policymakers, informing decision-making processes to ensure the sustainable use of Canada's river systems.

Exploring Health Risk Perceptions of School Water and Sanitation Environments Through Drawing with Children with Physical Disabilities in Ghana

Urbanus Azupogo & Elijah Bisung, Queens University

Ensuring that everyone has access to safe water and sanitation (WASH) is a key component of the United Nations Sustainable Development Goals (SDGs). However, because of social, environment, and personal factors, persons with physical disabilities face barriers when accessing WASH facilities. Using drawing with children with physical disabilities (CPWDs), this study seeks to: (i) explore how CPWDs navigate the WASH environment in primary schools; and (ii) explore the perceived health risks associated with WASH environments in primary schools in Ghana. The study used the draw-and-write technique to understand the challenges faced by CPWDs in accessing WASH services. Children received prompts to draw and write about the WASH environment in their schools. Then, the researchers held follow-up interviews to elicit the thoughts behind the drawings. After transcribing these interviews, we conducted thematic analysis using NVivo. We found many WASH challenges, including physically inaccessible WASH environments, unmaintained WASH facilities, and a lack of mobility aids and support from peers. Common health implications found included dehydration resulting from low water intake, diarrhea, vulnerability to abuse, and various forms of psychosocial stress. Psychosocial distress, such as worry, unhappiness, and embarrassment, was associated with limited access to WASH services. The study advocates data-informed policies, funding, and public awareness for inclusive WASH facilities to improve health, social inclusivity, and education for CPWDs in line with global sustainable development goals.

Nationalism and the Aesthetics of Space: Spatial Transformation and Political Imagery in Northern India

Harshvir Bali, University of Toronto

This paper investigates the nexus between space, aesthetics, and nationalist ideology in Jammu & Kashmir, India. I explore how the politics of image shapes the perception, management, and transformation of space within the nationalist framework. Using a case study of spatial transformation during Amit Shah's visit to the region in October 2022, I examine how Indian Hindu nationalism employs aesthetics to propagate an image associated with "purity" or "revival". Drawing on Walter Benjamin's aesthetics and Etienne Balibar's nationalism studies, I observe how the aestheticization of space serves the political agenda of the Bharatiya Janata Party (BJP) to establish a presence in Kashmir, projecting an aesthetically "cleaner" and "Naya (new) Kashmir". This involves various strategies including propaganda, media representations, and urban redevelopment initiatives. However, this pursuit of purity often marginalizes Muslim and Sikh communities, highlighting the tensions between spatial transformation and inclusive representation in the region.

Gender Analysis on Changes in Cannabis Consumption Among Emerging Adults in Relation to Policy and Public Health Developments

Caroline Barakat, Susan J. Yousufzai, Adam G. Cole & Mika Nonoyama, Ontario Tech University

Rates of cannabis use appear to be highest among emerging adults (EA). Evidence suggests that cannabis smoking, as well as alternate methods of cannabis use (e.g., vaping, edibles) have become a prevalent mode of consumption among this population. Substance use or misuse peaks during emerging adulthood and may be

influenced by extreme economic, social and community developments, such as policy changes, public health concerns, and significant global events such as pandemics. For instance, it is highly likely that cannabis consumption trends among at-risk populations were influenced by the legalization of recreational cannabis in Canada, the declaration of the “e-cigarette or vaping product use associated lung injury” or “EVALI” outbreak, and the “COVID-19” pandemic. We examined self-reported changes in frequency of cannabis use among EA in Canada (N = 312): pre-legalization, post-legalization; pre-EVALI, post-EVALI; pre-COVID-19, since-COVID-19. There was a gradual increase in average frequency of smoking and vaping cannabis across the six different time intervals from the pre-legalization period (2018) to the COVID-19 pandemic period (2020). Males reported higher frequencies of cannabis smoking and vaping compared to females. Despite health concerns and expectations that EVALI and COVID-19 events would lead to decreased consumption, our results suggest an average increase in smoking and vaping cannabis, although the most notable increase was after legalization. Sex differences in behavioral factors of cannabis use in EA exist, though it appears that the “gender-gap” in cannabis consumption is closing. These findings can guide the development of gender-based intervention programs for policy measures to address cannabis-attributable outcomes.

‘Placed’ on the edge: Innovation transitions from path dependent rural economies in Newfoundland and Labrador

Joshua Barrett, University of Guelph

Path dependency, often coinciding with the downloading of various responsibilities with reduced funding from higher levels of governments during the neoliberal era, has led to capacity challenges for rural local governments to pursue sector diversification activities. Despite these challenges, research has indicated that, through entrepreneurial efforts, breaking path dependency is possible. Using examples from rural Newfoundland and Labrador, this paper identifies various factors that influenced local governments to transition from their path dependent economies. In doing so, it identifies ways in which rural local governments can be innovative and positively influence socioeconomic prosperity.

Complex experiences of international students during COVID-19 pandemic in Canada

Evans Batung, Ebenezer Narh & Desmond Oklikah, University of Western Ontario

Research abounds on the various impacts of the COVID-19 pandemic on different groups within unique socio-economic hierarchies in Canada. Yet, comprehensive evidence on the experiences of international students (ISs), who faced similar challenges during the pandemic have been largely absent in Canada’s “build back better” agenda. This is despite the fact that ISs are key economic drivers who make a vital contribution to sustaining the financial baseline of most Canadian academic institutions, especially in light of recent data showing a decline in domestic enrollments. Further, available studies have also focused on a narrow group or academic disruption, which leaves other important livelihood facets unattended. The entrenched diversity that characterizes Canada’s academic landscape meant that, the pandemic’s effect had a higher degree of impacts on some groups relative to others. To examine these experiences and their nuances, we conducted a systematic review of the pandemic’s impact on international students in Canada on multiple dimensions. After a thorough literature search, screening, and assessment process, fifteen studies were deemed eligible and included in the final analyses. We found that, beyond the sudden change that halted or interrupted the academic timeline of ISs, the pandemic heightened their precarity especially regarding financial and food security. We also observed an uptick in psychological complications. Based on these findings, we suggest some policy recommendations.

Surviving during the COVID-19 pandemic in Canada: insights from immigrant essential health care workers in Southwestern Ontario

Evans Batung, Godwin Arku & Isaac Luginaah, University of Western Ontario

The COVID-19 pandemic profoundly altered the psychosocial and socio-economic realities of most people across Canada. While there is some truth to the notions of “impartiality” about the virus, the casualties and

lived experiences of some groups have been disproportionately variable. For instance, essential healthcare workers (EHCWs) who were at the frontlines of the pandemic response were relatively vulnerable to the pandemic. Among this group, however, immigrants who dominate these occupations had a harder time coping with the outbreak, in part due to unfavorable systemic policies and structural inequalities. Despite the potential of a differentiated experience among IEHCWs during the pandemic, research is lacking on this front. Drawing on in-depth interviews with thirty (30) IEHCWs in Southwestern Ontario, we examined the personal impacts of the pandemic on their livelihoods during the outbreak. Our findings show that, on a personal level, the pandemic had a largely negative effect on the livelihoods of IEHCWs. Familial obligations in their countries of origin further increased livelihood complexities. Key challenges include increased financial obligations both locally and abroad, strained intra-household relations due to fears of viral infections, persistent worrying about loved ones, and limited working opportunities. Interestingly, some participants also reported positive experiences during the pandemic. Some of these include increased income from additional jobs, as well as awareness of personal hygiene and adopting behaviors toward mental resiliency. These findings reiterate the need for policymakers to recognize the unique support systems that IEHCWs may require to thrive in these occupations.

Defining the Edges of a Blue Justice Typology for Small-scale Fisheries

Edgar Eduardo Becerril-García & Ratana Chuenpagdee, Memorial University of Newfoundland

Small-scale fisheries are vital in the establishment, development, and survival of human communities. Despite this, the combined impacts of diverse socio-ecological stressors influence small-scale fisheries and co-workers in both marine and inland localities. These stressors relate to global and local challenges such as climate change, habitat degradation, and overexploitation. Other feasible impacts on the functions of fishers relate to unsustainable and non-inclusive initiatives prompted by the Blue Economy and Blue Growth, which have evoked a global claim of Blue Justice for small-scale fisheries. Blue injustices can be considered any harm to small-scale fishers in their capacity as knowers and are expressed as concerns regarding the conditions for applying environmental, distributive, market, procedural, and regulatory justice, among others. This study will unveil some of the injustices perceived by small-scale fishing communities by analyzing the vulnerability, governability, response, and appraisal of diverse natural, social, and governing systems in Argentina, Brazil, Canada, Chile, Ghana, Guatemala, Italy, Japan, Madagascar, Mexico, New Zealand, Nigeria, Perú, Spain, Thailand, Tonga, Turkey, and Turks and Caicos Islands. The patterns and edges of these case studies will be analyzed and defined using multiple factor and hierarchical cluster analyses to develop a typology via an interdisciplinary framework (I-ADApT). The aim is to provide preliminary results of this decision-support tool, highlighting successful and unsuccessful strategies for coping with various blue injustices.

Guts'eni (Our Relations): Building a Community-based Revegetation Program on Kaska Dena Lands

Caitlynn Beckett, Memorial University

Jody Inkster & Cassia Jakesta, Dena Cho Environmental and Remediation

Krystal Isbister, University of Alberta

Justin Straker, Integral Ecology Group

Ross River Dena Elders

In 1969, the Faro Mine was constructed on unceded Kaska Dena lands (Yukon, Canada). The mine displaced many Kaska Dena families and remains a symbol of colonial injustices inflicted on the Kaska. Elders have provided Ross River Dena Council and their advisors with clear guidance for the remediation of the Faro Mine site: before we reconnect or return to the Faro site, we need to ensure that plants, wildlife, and people are safe from contamination. Therefore, revegetation and vegetation monitoring programs are central to healing the Tsē Zūl (Faro) area. This paper outlines the process that Dena Cho Environmental and Remediation Inc. created to ground revegetation planning in Kaska Dena knowledge, protocols, and ethics. As a part of Caitlynn's PhD work, this paper also reflects on the challenges, realities, and highlights of

community-based research in collaboration with community, industry, and environmental consultants. The core of this community-based work is about re-establishing relationships between Kaska Dena and the Tsē Zūl landscape, and only secondarily about 'land use' or data gathering, allowing for flexibility and care in the dynamic relationships between community and land. This project is also a strategic 'point of entry' for Kaska to confront the many barriers to Dena governance at Faro. In rebuilding relationships with plant relations, we are reclaiming place and re-occupying Kaska Dena lands stolen via ongoing colonial extractivism.

What the Public Sees: International Students and Food Insecurity

Shenelle Bernier, Toronto Metropolitan University

International students in Canada are increasingly under the microscope in both scholarly research and in the media. Research studies aim to understand and address the issues affecting international students. Media reports, however, sometimes wrongly and unfairly connect international students to issues of financial insecurity experienced by Canadians such as the housing crisis and issues with the job market. The financial precarity experienced by Canadians also affects international students, especially when it comes to issues of food insecurity. Food insecurity is defined as inadequate access to sufficient, nutritious, and preferred food. While there are many factors that contribute to food insecurity, the outcome is one that cuts across all sectors of the population, for Canadians and international students alike. While there is some scholarly attention paid to how food insecurity is experienced by international students my interest lies in what the public knows about international students and food insecurity. The research question, "what is being reported by media outlets about international students and food insecurity?", prompted a search of the ProQuest database for newspaper and magazine articles from the past ten years. The search terms used included "international students" "food insecurity" and "Canada". The articles returned spanned the country, representing urban and suburban locales, as well as two international stories from Indian news outlets. These media articles demonstrate that while there is recognition of the impact of food insecurity on international students, the solutions to remedy the problem are still lacking.

Using spatial modelling to assess the influence of global climate shift and land Cover changes on stream temperature and flow variability in Horsefly Watershed, Cariboo Region, British Columbia

Madan Raj Bhandari & Yolanda Wiersma, Memorial university of Newfoundland

Travis Heckford, Ministry of Water, Land and Resource Stewardship, Government of British Columbia

Stream temperature and flow are the major determinants of aquatic ecosystems that influence salmon habitat and suitability. Addressing this, our study employs spatial analysis using a Geographical Information System (GIS) platform to investigate the effects of global climate shift, land cover changes and riparian vegetation composition on stream temperature and flow variability in the Horsefly Watershed of British Columbia. The Horsefly Watershed, a vital salmon spawning ground, has seen notable land use changes and urbanization, raising concerns about salmon habitat sustainability. To address this concern; we simulated hydrological processes with the Distributed Hydrological Soil Vegetation Model (DHSVM) and River Basin Model (RBM). We used global climate shift, land cover change, and riparian vegetation composition to study stream temperature and flow of the Horsefly watershed. Given the species' sensitivity to temperature and flow for migration and reproduction, these factors are critical for maintaining suitable salmon habitats. Three sub-basins were delineated for detailed analysis and model application: Moffat, Mckinley, and Caput. The Distributed Hydrological Soil Vegetation Model (DHSVM) exhibited differing performance in sub-basins, depending on the altitudinal gradient and the presence or absence of dams. These observations suggest that DHSVM is best suited for application in catchments featuring unregulated stream flow and lower elevational profiles within the Horsefly watershed. In contrast, the River Basin Model (RBM) demonstrated comprehensive applicability across all three sub-basins, effectively simulating stream temperature metrics.

The Paradox of Air Pollution Precautions in the Global South: Perceptions of Built Environment and Sedentary Behaviour among Children and Youth

Jasmin Bhawra, Toronto Metropolitan University

Background: Poor air quality and built environment have been shown to lower engagement in physical activity, which may contribute to increased smartphone use among children and youth. Many regions in the global south experiencing severe air pollution also lack neighbourhood infrastructure conducive to active living – factors which may further drive high sedentary behaviour. Taking a child and youth-focused perspective, this study assessed how perceptions of air pollution and the built environment influenced smartphone use among children and youth in India.

Methods: Participants aged 5 to 17 years (n = 989) from 41 schools in 28 urban and rural areas across India completed online surveys to collect information on perceptions of air pollution, built environment factors, and smartphone use, in addition to sociodemographic factors. Multivariable linear regression models were conducted with smartphone use as the primary independent variable. Models were adjusted for age, urban/rural location, and gender (p <0.05).

Results: Children and youth who reported taking precautions against air pollution during outdoor physical activity were associated with significantly higher sedentary behaviour in the overall model, among youth aged 14 to 18, rural areas, and males; however, this effect was not found in the 5 to 12-year age cohort, urban areas, or females.

Implications: In regions across the global south experiencing severe air pollution – particularly with increasing heatwaves related to climate change – air quality precautions may deter children and youth from engaging in outdoor physical activity. Environmental factors may therefore inadvertently encourage children to stay indoors and engage in excessive smartphone use.

Property Developer Positions Towards Intensification in Canadian Mid-sized Cities

Jeffrey Biggar, Dalhousie University

The promotion of compact development through higher-density land use has been a prevailing planning paradigm in many large cities, however, mid-sized cities have struggled to achieve a market to realize this model beyond core areas. Canadian mid-sized cities (populations ranging between 50,000 and 500,000) are typically characterized as being auto-dependant and dispersed through the proliferation of low-density development and segregated land uses (Grant et al., 2018; Graham et al., 2019). There remains a deficit of planning models applicable to the distinct circumstances of smaller and mid-sized cities (Bunting et al., 2007; Hartt and Hollander 2018; Pham et al., 2024). This paper draws on 2023 survey research with builders and developers in five fast-growing Canadian mid-sized cities (Halifax, Moncton, Fredericton, Kingston, Victoria). The primary research objective was to better understand the regulatory capacity for residential intensification in mid-sized cities from a development perspective, including drivers and barriers to policy implementation. The findings show existing regulations, local opposition, and low consumer demand impede the implementation of compact and dense city qualities. The findings raise important questions for municipal authorities tasked with governing mid-sized cities in a time of rapid growth. Beyond the need to adopt planning reforms to speed up development and lower costs, additional consideration toward enhanced municipal administrative support and improved collaboration between public and private sectors were seen as important measures to improve accountability in the municipal development process. The paper concludes with the impact of intensification policies on the sustainable growth management of mid-sized cities in Canada.

The Complexities of Aging: Using Crowdsourced Data to Understand and Analyze the Mobility Barriers Older Adults Experience as Pedestrians

Amanda Bishop & Victoria Fast, University of Calgary

Fatalities resulting from pedestrian-vehicle collisions disproportionately affect older adults (aged 65+), with rates three times higher than younger age groups. Existing literature states pre-existing mobility impairments, declining cognitive health, and slower walking speeds are factors that elevate overall exposure times and collision risks for older individuals. Despite this awareness, physical infrastructure and transportation policy inadequately addresses the environmental hazards creating mobility barriers for older adults. This study

identifies a critical gap in data and policy, highlighting a persistent under-representation of older adults alongside an over-representation of adults aged 34 to 44 in transportation policy. While policy directives often target the demographic majority, they overlook those facing the greatest risks. To address this policy mismatch, this study conducts a segment and thematic analysis on crowdsourced data, to understand barriers to pedestrian safety and accessibility. Over 3000 reports, pulled from WalkRollMap.org between May 2021 to December 2023 were analyzed, to explore demographic variability in how barriers are experienced. Notably, adults aged 25 to 34 accounted for half of all reports, while older adults represented only 10%. The study's findings underscore the need for more inclusive data collection and policy formulation processes. Achieving age-friendly cities necessitates engaging with older adults to understand the diversity of their needs, encompassing vulnerabilities and resilience systems. By bridging this gap, cities can better support the health and active mobility of all residents.

The blurring edges of work-life: hybrid and remote work, and returning to the office in Ontario's tech sector

Tyler Blackman, University of Waterloo

The technology sector is one of the most vaunted labour markets in North America. But recent waves of layoffs in tech companies large and small and the so-called 'post-pandemic' return to the office have impacted tech workers' relationship to their working lives and their attachment to their work and their spaces of work. In this paper, I take stock of the preliminary findings of my doctoral research. Drawing on qualitative interviews with workers in the technology sector in Ontario, I address the paradoxes and challenges of a spatially complex work that plays out between fully remote, hybrid, and fully office-based work relationships. By examining this context, I ask the crucial question: how do precarity and agency manifest at the top end of the labour market, in jobs that are perceived as high-status and personally rewarding, and how do tech workers articulate their own agency and precarity in their working lives? In this way, I aim to complement ongoing research in labour geography by considering both agency and precarity as foundational but still evolving concepts, where constrained or enabled agency and shifting degrees of precarity coexist spatially. My preliminary analysis presents workers' narratives as a means of describing the broader economic changes of our time, the spatial contingency of modern working life, and spatial imaginaries of the future of work.

Indigenous City Builders: Transforming and Influencing Municipal Governance

E. Victoria Bomberry & Chantelle Richmond, Western University

This presentation is a conceptual discussion of my planned PhD research examining how urban environments influence Indigenous nationhood, how expressions of Indigenous nationhood shape urban environments, and the implications of these processes on the health and well-being of Indigenous urban communities. Indigenous urban communities are diverse populations of First Nations peoples, Inuit, and Métis, which generates a dynamic and collective Indigeneity. Despite growing populations and resurgence in cultural and identity reclamation, Indigenous urban leaders' political power and influence are hindered by colonial policies and legislation that have obstructed the development and recognition of Indigenous urban governance structures and distinct land bases. Colonial impoverishment of Indigenous leadership in urban environments has a profound impact on their ability to gather resources to support the health, well-being, and healing of Indigenous urban communities. To overcome these challenges, Indigenous urban leaders draw from the treaties of the traditional territories where they are situated to navigate, influence, and transform the municipal and provincial jurisdictions they operate within. Drawing from my lived experiences as a Haudenosaunee woman who moved from my nation (Six Nations of the Grand River) to an urban centre (Hamilton, Ontario), my presentation will explore how urban environments generate unique challenges and experiences in reclaiming Indigenous identity, culture, and land, which impact expressions of nationhood as well as possibilities for health, well-being, and healing.

“Staying Awake - Vulnerable and Voiceless in the ‘dreamland of Greener Pastures’”

Richard Osei Bonsu & Nana Oboadie Boateng Bonsu, Centre for Migration Studies, University of Ghana

This empirical research is about Postcolonial and decolonial approaches which have opened fruitful conceptual and theoretical notions such as entangled (im)mobilities, connected histories and sociologies, and multidirectional memories in this era of (im)migration. The Sub-Saharan African continent each day loses hundreds of unaccountable youth to irregular migration, not as a result of seeking refuge, but moving from impoverished political economy. Migration is a universal phenomenon but the trend of these irregular migration represents one of the biggest humanitarian tragedies, rendering most African youths who were intellectuals and vision holders to be hopeless within the scope living as undocumented migrants for which they constitute the greater work force of their nation. Twenty-first (21st) century promises to be a new age of migration. African migrants will risk all certain to death to reach the West, their dreamland of greener pastures 'the land of Paradise', thirty percent (30%) will be confronted with death while seventy percent (70%) do make it but are soon confronted with shattered dreams. Through an empirical research, this paper identified the most important factors which contribute to the amplified migration among African youths.

“No Tourists, No Life”: Exploring the Link Between Social Capital and Tourism in Disaster Recovery

Ash Borg and Brent Doberstein, University of Waterloo

This presentation explores the link between social capital and tourism as a potential tool for disaster recovery. Building off the current understanding that increased social capital leads to reduced vulnerability within the disaster management cycle, this presentation traces research that examines whether tourism was a viable motivating factor to mobilize social capital for post-disaster. A single-case, case study methodology, utilizing semi-structured interviews (n=16), was completed in parallel with secondary data collection and direct observation to validate and provide further context to qualitative results. The case study originated from a flash flood that devastated the tourist village of Bukit Lawang, Indonesia in 2003, however, against all odds, the village was able to recover efficiently and quickly, sustaining its tourism industry today. This major event, and subsequent recovery, provided the ideal case study to identify the impact tourism has on the varying types of social capital (i.e. bonding, bridging, and linking) and their effectiveness in mobilizing for and initiating recovery efforts. The research determined that tourism is a viable motivating factor for social capital to enact quick, efficient, and sustained recovery initiatives, with a significant number of interviewees directly associating recovery to their personal, as well as community's, desire in maintaining a tourism livelihood. While the use of tourism and social capital as a catalyst for recovery holds merit, further research is needed on how to strengthen linking social capital (i.e., government and other powerful actors) in disaster recovery, as well as how to promote resilience-thinking aligned with build back better at the community level.

The fault lines of internet-enabled work in rural Atlantic Canada: Putting gender and class in place

Rhea Bowen, Carleton University

Forms of internet-enabled work, telework, and digital work, are often imagined and promoted to allow “work from anywhere,” and that place is no longer relevant; but this study of internet-enabled work in rural Atlantic Canada shows that geographical place and individuals’ relationship to it matter in terms of why rural workers are involved, how they access opportunities, and the impacts on their work and households. Twenty-eight participants from rural communities completed a questionnaire and participated in semi-structured interviews. I apply a grounded theory approach to the analysis and employ an inductive process, staying close to the data to develop findings grounded in time and place. The findings reveal that the length of time in rural communities impacts involvement, as residents with skills and experiences gained in urban areas are involved at a higher rate and can gain access to opportunities far from their communities without incurring material or labour costs over long-term residents. Rural women are more involved than rural men because of interrelated mechanisms of occupational segregation, spatial division of labour, and rural work cultures. Rural women are also pushed into the forms of work as a strategy to overcome material conditions and rural employment contexts. A portion of rural women are also actively engaging in internet-enabled work in addition to other

paid forms of work, which puts them in a situation where the spheres of work and home are acute, as they must manage the conflicts between employers in addition to their domestic work and other care responsibilities. Rural women with children and long-term rural women are disadvantaged in enacting strategies to minimize negative impacts. The research fills a gap as it focuses on rural contexts rather than the urban environments that dominate the literature. It also furthers scholarship initiated by scholars on the gendering of rural digital work (Khan & Burrell 2021) and the intersections of gender, class, and rurality (Bryant & Pini 2011).

Taking stock: Trajectories of income inequality and poverty in the Canadian North

Sébastien Breau, McGill University

This paper presents new estimates of income inequality and poverty for the four regions of Inuit Nunangut. Three indicators – the Gini coefficient, p90/p10 ratio and before-tax low-income measures – are calculated at the community-level (i.e., across Census Subdivisions) from the long-form Census micro-data files for the 1991 to 2021 period. Exploratory spatial data analysis is used to examine and compare trends in trajectories of inequality and poverty in the North to other regions of Canada. While both levels of inequality and poverty remain generally higher for communities in northern regions, these new estimates suggest some progress has been made over the last 30 years.

From the ground, up: Quantifying severity of the 2022 Newfoundland Wildfires

Lucas Brehaut, Morgan Crowley, Mark De Jong, Rory McInnes, Douglas Piercey & Olivier van Lier, Canadian Forest Service/Natural Resources Canada

Wildfires are a natural disturbance in Atlantic Canada's forests, yet our regional understanding of severity is limited due to a maritime climate and unique forest characteristics causing low fire frequency. As climate continues to warm, drought conditions increase the likelihood of wildfire events, prompting an urgent need to understand wildfire dynamics and associated risks in Atlantic Canada. During the summer of 2022, the largest wildfires in the last 60 years burned an area of 22,000 ha in central Newfoundland, providing an important opportunity to quantify severity while establishing effective methods for provincial fire agencies. Starting in 2023, we began to test the relationship between plot-level measurements (e.g., Composite Burn Index), multispectral UAV imagery, and satellite-based metrics (differenced Normalized Burn Ratio) to establish what open-access or low-cost products can be used to provide accurate wildfire severity information in a region obscured by cloud cover. Preliminary findings from satellite data indicate much of the area burned at high severity; however, some inconsistencies between plot-level metrics and satellite-based metrics exist, with rocky outcrops and unburned bogs being incorrectly classified as moderate and high severity burned areas. Ongoing research will be presented on the effectiveness of whether UAV imagery can link plot-level and satellite-based metrics. Research outcomes will be used to support broader understanding of fire severity across Atlantic Canada.

Sitting with seedlings: Understanding forest resilience after wildfire in a warming world

Lucas Brehaut, Canadian Forest Service/Natural Resources Canada

In 2022, record-breaking wildfires occurred across central Newfoundland. These fires resulted in air quality advisories, a state of emergency for several communities, and caused highway closures that effectively cut off several communities from the rest of the province. As climate change continues to create more opportunities for severe drought-related wildfires in Atlantic Canada, there is a sense of urgency in the question of how these forests will recover? But this is a large question that takes time. Understanding forest resilience in post-fire landscapes is challenging and often depends on many different factors (e.g., post-fire vegetation, reproductive legacies, climate, weather). Sometimes it's best to sit on the charred organic material with the seedlings and think about what challenges they face in this new environment and what opportunities may

exist in the future. To do this, we initiated a manipulative seed and seedling experiment in 2023 across three separate burns to watch the seedlings grow, teasing apart what controls germination and establishment in Newfoundland's burned forests. We also paired this experiment with Open Top Chambers (OTC), which warm microsite conditions to simulate the cumulative impacts of wildfire and climate change and on early life-stages. Results from this experiment will support an adaptive forestry sector and ensure forests remain resilient under changing fire regimes and climate change.

To know a place we need to know the past: Historical aerial photos and maps geovisualizations to display research and engage the public

Daniel Brendle-Moczuk, University of Victoria

Historical aerial photographs and maps are essential because they enable biologists, ecologists, geographers, historians, planners, politicians, etc to, in the words of Yi-Fu Tuan, know the land, place and past. Historical airphotos and maps permit researchers and the public to know the past regarding historical coast lines, creeks, lakes, land before open pit mines, rivers before dams and reservoirs, historical vegetation, etc and even the locations of historical First Nations building and structures. There are many digital visualisations possible that enhance historical physical airphotos and maps. This presentation will demonstrate some geovisualisations, specifically interactive webmaps built utilising open source packages showcasing historical airphotos and maps that focus on change over time in land use and urban development. Webmaps enable the world to digitally view physical objects that otherwise were only viewable in person. While there are many webmap possibilities some are more effective than others depending on the context displayed. Advantages and disadvantages of various webmaps will also be discussed.

Emotional Cartography: A Geocritical Analysis of Montréal's Mid-20th Century Novels

Cameron Brubacher, Concordia University

Cities have long been a subject of interest in literature, with fictional depictions of historical neighbourhoods influencing how readers and residents perceive and experience them. Montréal represents an expansive case study when looking at the intersection of literature and geography, due to its rich sociopolitical and linguistic histories, which have been greatly explored in its novelistic production. Inherently multidisciplinary, this project draws upon research from fields such as literary criticism and human geography to propose a cartographic visualization of the emotional depictions of urban spaces in Gabrielle Roy's *Bonheur d'occasion* and Michel Tremblay's *La grosse femme d'à côté est enceinte*. Through a close reading of these two novels, passages depicting various urban locations are identified, then annotated with a selection of six emotional themes (each with a positive and negative aspect), based on the emotions portrayed by characters in relation to the location of each passage. The annotated passages are then mapped using the web-mapping platform *Atlascine*. This cartographic visualization, accompanied with literary analysis, point to a pattern in the emotionality of urban spaces in these two novels. Positive feelings of joy and welcome are largely associated with characters' home neighbourhoods, while areas outside these insular spaces (and particularly downtown Montréal) are associated with feelings of anxiety and inferiority. This joint-cartographic and literary exercise, in the form of an interactive, web-based map, effectively contributes to the fields of literary geography and cartography. Although using an admittedly small selection of novels, this project has great potential for continued development and expansion.

Rides, Robots and Restaurants: How mobility transitions necessitate a rethinking of urban policymaking agendas

Emilia M. Bruck & Shauna Brail, University of Toronto, Mississauga

Disruptive innovations launched by digital platform firms, and primarily operating in cities, necessitate a rethinking of the role of urban policy in helping to manage and direct urban change. This paper examines the transformation of urban policymaking agendas through three interconnected case studies on ride hailing, on-demand food delivery and autonomous sidewalk robots. The paper underscores the push for governance innovation in municipal practices within an environment characterized by multiscale relations, diverse interests, and rapid technological change. It explores the tensions associated with disruptive digital mobility platforms at the urban scale, with an emphasis on understanding the implications of treating cities as spaces of experimentation and innovation. Examining the regulation of disruptive mobility activities suggests that, despite significant efforts, there is a need for greater public oversight and policy integration to ensure the alignment between digital, environmental, and just mobility transitions.

Assessing vulnerability and challenges of floodplains in transboundary watersheds to climate change and WEF nexus policies: example in West-Africa.

Laurent Bruckmann, Université Laval

Floodplains provide a range of ecosystem services to society, particularly in Africa, where they are used for subsistence activities such as flood-recession farming, fishing, or grazing. However, floodplains are particularly vulnerable to changes in the flood-pulse regime resulting from drought or dam construction. In the context of the Water-Energy-Food-Ecosystem nexus, the impact of water policies on floodplains is evident, as is the influence of energy and agricultural policies. The complexity of water-nexus management increases in transboundary watersheds, making wetlands vulnerable. In West Africa, the Senegal River Valley is at risk from the construction of future hydropower plants, irrigation schemes, and river shipping infrastructures. This communication presents the results of an interdisciplinary study aimed at assessing the impact of climate change and nexus policies on the Senegal River Floodplain. Firstly, we developed indicators describing the socio-hydrological functioning of the floodplain, to provide information on ecological status, agricultural uses and economic results using local surveys, remote sensing and spatial analysis. Secondly, we employed a modelling approach to simulate the effects of the water system characteristics on the floodplain. It considers current and future infrastructures (dams, irrigation systems), water-related policies (reservoir rules, economic objectives) and climate change. The results indicate that the food and ecological components are highly vulnerable to the exploitation of multiple reservoirs that will suppress flooding and are intended by multilateral policies. In the context of transboundary water management, it is imperative to consider the socio-ecological functioning of the floodplain in order to preserve the trade-off between nexus sectors.

Commercial Gentrification and the 15-minute City: Examining Local Correlates of Commercial Upgrading in Using Business Microdata. The Case of Montreal's Inner City Shopping Streets, 1995-2024

Cédric Brunelle & Jia Yi Yu, Institut National de la Recherche Scientifique (INRS)

The 15-minute city concept emphasizes proximity to local shops and services as critical for urban life and sustainability. For inner city neighbourhoods, this proposition renews the significance of shopping streets as destinations where a mix of services and everyday needs can be met within a short distance. However, the ongoing transformation of commercial streets raises important challenges to achieve the objectives of the 15-minute city model, with growing concerns over the rise of commercial gentrification, where small, locally owned stores give way to a concentration of specialty shops, franchises, and high-end boutiques. Focusing on Montreal's inner city shopping streets, we use business microdata spanning nearly three decades (1995-2024) to analyse factors associated with commercial upgrading – a process defined by the consecutive exit of a local business followed by the entry of a non-local or “upgraded” business in the same location. This process is further analysed over three dimensions: 1) local use – whether the new business activity primarily targets local or non-local usage on the street; 2) commercial mix – whether the new activity increase the commercial mix or brings more specialization on the street, and 3) homogenization – whether the new activity replaces independent stores by larger chains and franchises. Using spatial logistic regressions, our results show significant shifts in the composition of businesses along Montreal's shopping streets over time, with spatial

variations highlighting that not all shopping streets experience the same degree of commercial gentrification. Factors such as prior activities, local industry mix, neighborhoods, and accessibility play a crucial role.

Indigenous-led Protected and Conserved Areas in Québec: Bridging the Gap Between Concepts and Practice

Véronique Bussièrès & Monica Mulrennan, Concordia University.

While the concept of IPCAs has gained increasing traction in recent years, the creation of protected areas that respond to Indigenous Peoples' aspirations for decision-making power and align with Indigenous rights, values, and worldviews is still new and challenging. In this presentation, we explore the specific context of Indigenous-led protected area creation within Québec, by providing an overview of some constraints that arise related to the jurisdictional and political context. Responding to the question of how IPCAs can become spaces for upholding Indigenous self-determination, we explore some cases that stand out. This includes the Inuit-governed national parks in Nunavik, the co-managed Akumunan Biodiversity reserve on the Nitassinan of the Innus of Essipit, and protected areas in Eeyou Istchee, including the Paakumshumwaa-Maatuskaau Biodiversity Reserve. By identifying key elements that have contributed to the success of these cases, we hope to inform the development of a new legal tool for Indigenous-led Protected Areas (under the Natural Heritage Conservation Act).

Portering Labour Relations, Identity and the Performance of Mobile Subjectivities in the Karakoram, Pakistan

David Butz & Nancy Cook, Brock University

Mobilities are productive of socially-differentiated embodied subjectivities through the social relations in which they are enrolled, the corporeal practices of movement, and the discourses that attach to the bodies of those involved in particular sorts of mobility. One important structuring relation for these subjectivity-forming processes is labour, most evidently in circumstances where embodiment, mobility, labour and cultural identity are treated as synonymous or indivisible, often with the effect of naturalizing the relationship between a specific population and a particular form of mobile labour. These associations pertain especially to the most dangerous, tiring, subservient and precarious forms of mobile labour, where they have been orchestrated and enforced over time to serve colonial, state or corporate interests, and where they are variously resisted and appropriated by the mobile labouring subjects in question. We focus here on one such instance, namely mountain portering labour in the Karakoram region of northern Pakistan, where "porters" are local men who carry loads across roadless terrain – for pay – for metropolitan, mostly foreign, outsiders. Our objectives are twofold: to trace the consolidation of an association among identity, embodiment, mobility and labour in the figure of the mountain porter, back to the colonial period, when the governance of pedestrian transport labour was key to colonial administration; and to sketch some ways porters have contested their positioning in an exploitative labour relationship.

Stories trees tell us

Carissa Brown, Memorial University

Trees are long-lived, sessile organisms; not the group one might immediately think of to study the impacts of climate change. Yet, trees record a history of the conditions they have experienced. Their wood can tell us the story of that history, helping us to understand the environment through the tree's lifespan, disturbances it may have experienced, or the history of an object made of that wood. Trees can also tell us stories by where they do and do not grow. Those stories help us predict where they may (or may not) occur in the future under ongoing global change. Using examples from 1) alpine treeline, 2) fire ecology, and 3) a dendroarchaeology involving a mysterious shipwreck, I will illustrate how we can turn to trees to understand the past, present, and future of places and things.

This is the story about some trees named Ted.

David M. Cairns, Texas A&M University

Just like people, every tree has a story. When we know how to listen, we can learn about journeys that it has taken, struggles it has endured, and where it is headed. This talk tells some of those stories for trees growing at the edges of their distributions at high latitudes. Specific examples are provided for Mountain Hemlock trees in Alaska that reveal how individual trees arrived at their locations, Mountain Birch trees in Sweden that have endured hardships due to insects and reindeer, and speculative futuristic fiction about what the Arctic may look like in future decades under a changing climate. Genomic, dendroecological and modeling methods are explored to reveal a fascinating tapestry of travel, struggle, and possibilities for treeline tree species.

'You're always at a crossroads': Exploring patient experiences of chronic illness through photovoice

Francesca S. Cardwell, Susan J. Elliott, University of Waterloo

Ann E. Clarke, University of Calgary

Systemic lupus erythematosus (SLE) is a chronic autoimmune condition that disproportionately affects women, often during childbearing years. Lupus nephritis (LN) is a manifestation of SLE that affects the kidneys, developing in up to 60% of patients with SLE. LN is a major cause of morbidity and mortality; however, little is known about the lived experiences of those affected. This research used social constructionism to explore patient experiences of LN. Individuals aged ≥ 18 years with LN ($n=13$) were purposefully recruited to participate in a photovoice exercise. Participants took photos of what LN means to them, impacts on daily life, and factors impacting LN management. Photos were shared and discussed in focus groups. Photos ($n=54$) depicted activities/settings that contribute to wellbeing ($n=15$), the self ($n=13$), healthcare experiences ($n=10$), home ($n=4$), community ($n=2$), friends ($n=2$), work ($n=2$), and other challenges ($n=6$). All participants described physical and psychosocial impacts of living with LN. Although twelve mentioned activities/settings that contribute to wellbeing (e.g., time in natural environments), participants were consistently reminded of their LN due to physical symptoms, challenges presented by the physical environment, and their altered life trajectories. Participants reflected on the dual burden of LN and the associated medication journey; side effects and medication-related financial challenges were highlighted by ten and five participants, respectively. Participants reported a substantial psychosocial burden associated with their LN. While activities that contribute to wellbeing were emphasized, the physical, emotional, and lifestyle impacts of LN and the associated medication journey serve as frequent reminders of their disease burden.

Coastlines, shorelines, and the changes therein: What is an optimal coastal change framework

Johnathan Carter, Independent

Nicky Hastings, Geological Survey of Canada

The edge where the land and ocean interface — call it the coastline or shoreline — is a dynamic environment of high-constant wave action, tidal cycles, and sediment transport. Under these and other influences, coastal changes occur in many forms — including the dual processes of erosion and accretion. Depending upon the local conditions, a given coastal site may experience stability or an overall trend towards either erosion or accretion, potentially altering the coastline position and even the underlying terrain. Understanding the spatial distribution of these trends may be invaluable for protecting human infrastructure and quality of life. A literature review of Canadian coastal change knowledge documented multiple different frameworks used independently by provinces and universities for mapping changes in the coastal regions. To improve clarity and consistency when comparing rates of coastal change across the country, the best practices from the separate frameworks were combined into a single National Coastal Change Classification System. The current prototype uses 16 classes to categorize sites of stability, varying degrees of erosion and accretion, and absent or subpar data. During the same review, inconsistent definitions for the terms coastline and shoreline were observed across different studies and institutions. This inconsistency creates ambiguity when comparing coastal change across Canada, while standardizing these terms would help streamline communication and

comprehension. Therefore, we propose that coastline be defined based on geomorphic features and shoreline on the tidal datum separating the intertidal and supratidal zones.

Mediated Decision Making among International Students in Canada

Rica Agnes Castaneda, Ashika Niraula & Anna Triandafyllidou, Toronto Metropolitan University

This paper examines the role of migration brokers in the decision-making process of South Asian international students in deciding Canada as a destination, and in choosing educational pathways (ie university or college) of study. Drawing on data from 35 interviews and 192 survey responses from prospective and actual South Asian international students, we highlight the varying roles international education intermediaries bring within contemporary Canadian context. This study investigates information-seeking strategies of international students (i.e., what types of information they seek about Canada) and the types of resources (i.e., brokers, social networks, social media, and self-initiated) utilized in actualizing the process of moving to Canada. As South Asian international students navigate the complex marketization of international education, we find that the search for ‘accurate’ information (i.e., about the visa process, fees, accommodation, migration pathways, etc.) is crucial on both ends-- for international students and people who influence their decision-making seek and/or provided, and those which brokers are privy to (and which they appear to convey). Our findings show that international students get simultaneously acquainted with an assemblage of features - transnational connections, social media platforms, and educational consultants - to verify the information, and greatly affecting their education-migration decision-making. By examining these meso-level actors in the process we aim to contribute to the development of our understanding of the education-migration industry.

Nature Prescriptions for the People and the Planet

Tara T. Chen & Susan J. Elliott, University of Waterloo

There is a ‘silent epidemic’ of loneliness and social isolation, which are critical elements for sustaining good health and wellbeing. Social prescriptions is a practical tool that takes action on the social determinants of health. Social prescriptions is a community-based, person-centred approach that enables health professionals to refer people to local, non-clinical in their community (i.e. dance class, art class) to meet the practical, social, and emotional needs to build a sense of place and feeling of belonging. This research study aims to understand how nature prescriptions are approached in Canada, a form of social prescription that involves prescribing time in nature (i.e. walking groups, community gardening in green/blue spaces). In Ontario, health professionals are prescribing access passes for patients to nature spaces through partnerships with nature providers (e.g. Parks Canada). Nature is historically seen as a therapeutic landscape with healing properties, serving as essential havens for physical activity, mental well-being, social cohesion, and connecting with nature in communities. Although nature is for everyone, not everyone may experience nature in the same way. We use realist methodologies through a study design that includes a realist review of the current literature to address the research objectives, key informant interviews, and walking interviews with patients to understand the complexity of the context, mechanisms and outcomes of nature prescriptions. The preliminary findings of the realist review contributes to understanding the different referral pathways for prescribing time in nature in Canada, strengthening the narrative around nature prescriptions.

Québec and Paradiplomacy at the Edges of the Indo-Pacific

Han Cheng, National University of Singapore

Hang Zhou, Université Laval

In 2023, Québec launched a territorial strategy for the Indo-Pacific region titled the “Pathway to Economic Growth: New Ambitions for Québec”, which recognizes that the Indo-Pacific region has become the new global economic centre of gravity. The Indo-Pacific, which stretches from Central Asia to East Asia and

includes the Indian Ocean and Oceania, has become the world's economic and geopolitical hub. Not only is the region the world's largest consumer market, it also became Québec's second-largest international export market in 2020, having experienced the strongest growth in the past ten years. The Québec strategy states explicitly that the province's interests in the region as a whole are primarily economic, in addition to acknowledging China will continue to have an impact on Québec's economic prosperity despite ongoing geopolitical tensions with the United States and diplomatic tensions with Canada. The Québec example highlights one of the dynamics of change in the strategic environment in the Indo-Pacific and the evolving character of sub-national relations, or paradiplomacy, in the region. Scholarship on paradiplomacy has often focused on economics, trade, cooperation and politics. The deepening of strategic competition between the People's Republic of China and the United States has raised the stakes for sub-national diplomacy. While US-PRC strategic competition occurs primarily at the national level, the subnational level plays an important role in terms of creating opportunities for influence and advancing the strategic interests. In this paper Québec's paradiplomacy in the Indo-Pacific is examined, as is the intersection of paradiplomacy with strategic competition.

The Jericho Gate Project: challenges, aspirations, and politics of an urban megaproject in the occupied West Bank

Marco Chitti, McGill University

Mohammad Isayed, City of Jericho

This paper explores the political dynamics, aspirations, and challenges surrounding the planning and development of the Jericho Gate project—a multi-billion-dollar leisure-oriented megadevelopment near the ancient city of Jericho in the Jordan Valley. This project is part of a burgeoning construction boom in the West Bank following the end of the second intifada (2008), encompassing new towns, satellite neighborhoods, tourist amenities, hotels, resorts, sports facilities, amusement parks, and malls. These initiatives mirror broader trends in the Global South, where privately funded urban megadevelopments are touted as economic catalysts and job generators, especially in the Gulf area. Using interviews with planning officials, developers, media analysis, and fieldwork, we investigate how Jericho Gate was introduced, debated, and ultimately approved amidst evolving political dynamics between local and national decision-makers in a context of limited sovereignty, weak institutions, and informal governance in the areas of the West Bank controlled by the Palestinian National Authority. We also explore how the project is marketed to investors, developers, and buyers, leveraging a discourse of development, economic opportunities and modernity. This paper presents the trajectory of the project since its inception in 2012 as a paradigmatic example of contemporary urban trends in Occupied Palestine. It highlights the contradictions inherent in the push for development and modernization, echoing the urban success narratives of Gulf countries. The project serves as a potent symbol of speculative urbanism, a rhetorical effort towards nation-building, and the emergence of a new "Palestinian modern" lifestyle amidst the harsh realities of occupation and escalating conflict.

Triggered Town: situating communal violence in the wake of the Gujarat earthquake

Misba Chowdhary, York University

This thesis explores the overlaps and connections between the geophysical fault lines of the Gujarat, India earthquake of 2001 and the disaster trauma underlying the subsequent communal violence in Gujarat in 2002. Through a detailed examination of Gujarat over two pivotal years, with a focus on its urban hub, Ahmedabad, this research aims to uncover the complex intersections of natural disasters, religion, caste violence, and rapid urbanization. There has been a scarcity of scholarly contributions aimed at comprehending the connection between India's rising middle class population, environmentalism and social violence, as well as exploring their intersections with concepts such as development, modernity, society, religion and culture. (Shabnam 2012). Existing evidence points to an urban city heavily demarcated by religion, caste, class, and economics and increasing ghettoization post the 2002 'Pogrom' (Mahadevia and Desai 2014; Chandhoke 2009). The research involved studying a cross section of earthquake victims in the city of Ahmedabad belonging to the upper-middle classes of society who were severely affected by the damage of the 2001 earthquake and gauge

their attitudes, perspectives, and political leanings during and after 2002 as the physical and political landscape of the city and state started to change significantly. Moreover, it endeavors to unveil the erosion of societal values, tracing a trajectory from democratic aspirations to authoritarian tendencies. As climate change escalates and natural disasters become more frequent in the Global South, these scholarly endeavors will contribute valuable insights into the profound socio-political and ecological challenges confronting contemporary India.

What, Who, Where, When is the Ocean?: Ontological Diversity in Rights of Nature Movements

Domenique Ciavattone, Memorial University

Throughout the past two decades, Rights of Nature (RoN) movements have emerged in response to devastating climate changes and extractive practices that have ravaged the earth. Following a series of RoN cases globally (e.g. the constitution in Ecuador, the Whanganui River in New Zealand, and the Magpie River in Quebec), activists in Newfoundland and Labrador are advocating to grant rights to the Atlantic Ocean, a request that has never been attempted before. As this process moves forward, it raises critical challenges on how to both understand and facilitate the understanding of the implications of granting rights to the fluid, expansive, shared ocean. In Ecuador, protection of the ocean surrounding the Galapagos is heavily driven by scientific conservation movements and political motives, despite the country's constitution recognizing nature as having inherent rights. Innumerable communities, perspectives, and ontologies are shaping marine conservation discourse globally, thus necessitating deep, intentional collaboration. This research operates from the framework that oceans, like other forms of nature, are multiple. How can this multiplicity be negotiated in and through RoN? This study engages decolonial, emergent, collaborative mixed-methods to trace Rights of Ocean processes and look at how different demands might meet when granting rights to nature where nature is multiple.

Processus et pratiques de recherche collaborative : de la coproduction à la cocréation des savoirs

Adèle Clapperton-Richard, Caroline Desbiens & Justine Gagnon, Université Laval

Cette présentation se veut l'occasion de réfléchir aux processus et aux pratiques de recherche en contexte autochtone qui permettent d'honorer autant les connaissances que les communautés avec lesquelles on entre en relation. Elle se base d'abord sur la posture des « undercommons », le concept clé développé par Fred Moten et Stefano Harney dans leur essai *The Undercommons: Fugitive Planning and Black Study* (2013). Les « undercommons » réfèrent aux espaces, aux connaissances et aux pratiques qui sont dans les marges des lieux de production des savoirs officiels et institutionnels. Cette posture encourage des formes de recherche créatives et alternatives. De façon similaire, la figure du « bricoleur », initialement développée par Lévi-Strauss (1966) et reprise par Norman Denzin et Yvonna Lincoln (2008) dans leur manuel *The landscape of qualitative research*, appelle aussi à mobiliser de manière créative les outils et matériaux à sa disposition. La démarche scientifique du·de la bricoleur·euse emprunte ainsi au domaine artistique, dans ses méthodes comme ses finalités. Mobilisant la perspective des undercommons ainsi que la figure du bricoleur et partant d'expériences de recherche-création collaborative avec la communauté innue de Pessamit – dans le cadre de laquelle des récits de vie sur les changements en territoire sont illustrés et cartographiés – la présentation entend montrer non seulement la pertinence d'intégrer une dimension créative et artistique à la recherche en géographie culturelle, mais aussi l'importance de penser la recherche comme un processus de (co)création, en vertu duquel les relations, tout comme les résultats, se trouvent mutuellement enrichis.

Mapping on the edge: Participatory GIS and environmental (in)justice in Nogojiwanong/Peterborough

Michael Classens & Asana Farshchi, University of Toronto

This paper describes how, and why, our research team integrated Participatory Action Research (PAR)(McIntyre, 2008) with visual and spatial technologies within the context of an environmental justice

project. We ground our contribution in a project that engages racialized, Indigenous, and working-class community members in a process of mapping socio-ecological (in)justice in Nogojiwanong/Peterborough, Ontario (N/P). The project is intended to spotlight, and develop better understandings of, the legacies of social exclusion and industrial harm in N/P and to co-develop policy and program interventions designed to address and redress these conditions. We situate our project within the practice and literature on mapping environmental injustice (Waldron, 2018) and provide insights into the opportunities and disjunctures between action-focused, participatory methods and spatial technologies. Critics have noted that, by virtue of its complexity and the expertise required for its operation, conventional GIS inherently limits access and can serve to reproduce the inequity it (sometimes) purports to address (Chambers, 2006). Building on this critique, we offer three insights. We begin at the conceptual level and elaborate how the normative and ontological commitments of PAR inform the practice of Participatory GIS (PGIS) (Sieber, 2006) as we undertook it. Second, we consider implementation level challenges and opportunities we encountered in our work. Here we provide insights based on our year-long engagement with marginalized community members in the process of co-producing digital maps documenting environmental ‘goods’ and ‘bads’ across the N/P. Finally, we discuss challenges and opportunities related to developing policy and program level interventions designed to address the conditions of structural inequity and environmental injustice in N/P.

Migration Challenges and Opportunities in Ontario's Small and Mid-Sized Communities: An Economic Development Perspective

Evan Cleave, Toronto Metropolitan University

For many local governments, migration is now considered a vital part of local economic and community development. In Ontario’s small and mid-sized communities, the past half-century has brought a series of challenges caused by the impacts of late-stage demographic transition; the slow bleeding of skilled domestic workers to larger metropolitan areas; and the decline of traditional economic sectors. As a result, there has been a prioritization of attracting and retaining high-skilled and well-educated immigrants. More recently, the rise of intra-provincial migration in Ontario – characterized by flows of affluent seniors and younger, white-collar professionals from larger urban centres to smaller communities – has forced local governments to reassess the services they provide to their (new) residents. Within this context, this research examines the ways that smaller and midsized communities in the Province of Ontario, Canada are constructing and implementing attraction, integration, retention and support strategies for both international and domestic migrants. To do so, in-depth interviews were conducted with thirty local economic development officials from small and mid-sized communities in Ontario. The perspectives of the officials highlighted the need for migrants, the challenges that their communities in navigating changing local demographics, and the array of new services and processes needed to attract, support, and retain newcomers.

Office attachments: an affective economic geography of working from home during COVID-19 lockdowns in Ontario, Canada

Daniel Cockayne, University of Waterloo

In many geographic contexts, COVID-19 lockdowns represented a significant shift in the working practices of office workers. By the end of March 2020 in Canada, approximately 40% of the total working population were working from home, many for the first time, a figure that was as high as 80% in some office-based sectors. White collar workers’ paid employment-based work overlapped in new ways with unpaid socially reproductive work in the home that, especially while school closures continued, created significant additional challenges for parents and particularly women. While four years later in March 2024 many have returned to the office, many others continue to work from home for some or all of their work week, and lockdowns demonstrated that working from home did not dramatically negatively affect productivity. This paper presents qualitative data based on interviews with office workers in Ontario, Canada who began working from home for the first time in March 2020. Through a cultural economic geography frame, it uses the lens of attachment (after Anderson 2023), as well as other recent research in geography on affect and work, to critically analyze how these workers experienced the process of adapting to working from home. Many described this shift in

emotional terms, stating that their feelings about work (and family) changed significantly during this time. Attachments and detachments—to office and home, work and family—were various, complex, overlapping, and ambivalent. I argue that this shift represents an opportunity to better understand the cultural and economic significance of white-collar work.

Characterizing the acoustic environment of Placentia Bay (NL, Canada): low-frequency noise and marine mammal detections from two passive acoustic monitoring stations

Simone Cominelli, Carissa Brown, Memorial University

Jack Lawson, Fisheries and Oceans Canada

Vessel noise can reduce the health of coastal environments and interfere with marine mammals' behavior. This study describes the underwater acoustic environment of two acoustic monitoring stations in Placentia Bay, NL, Canada. The Red Island (RI) station was located 5 km from a shipping lane. The second station, Burin (BU), was located in an area of low vessel traffic. To assess seasonal variability in low frequency noise, we used sound pressure levels measures centered at 63 and 125 Hz and their median (L50), L95 and L5 exceedance levels. We compare the results with marine mammals' acoustic detections, vessel traffic, and environmental variables. At BU, L50 increased from the summer to the fall while RI did not show a trend. We observed the largest differences between stations in their L5 exceedance levels. 100 dB were exceeded 3 and 0.3% of the time at 63 Hz in RI and BU, respectively. At 125 Hz, the threshold was exceeded 4.7% and 1% of the time at RI and BU, respectively. Tankers and cargo large ships transits were the most frequent at RI. Traffic was more sporadic at BU, and recreational and fishing vessels were the most frequent. Fin whale vocalizations were the most common marine mammal sound detected. Detections were higher at RI and more frequent in the fall. Detections at BU were less frequent, peaking in September. Higher noise levels at RI are likely due to large vessels transiting close to the station, and might be negatively affecting marine mammals in the area.

Mobility, mobile phone infrastructure and gendered subjectivity formation in Shimshal, Pakistan

Nancy Cook & David Butz, Brock University

This paper focuses on the relationship among mobility, new mobile phone infrastructure, and gendered subjectivity formation in Shimshal village, northern Pakistan. We develop this relationship by analysing how Shimshali women employ mobile phones as productive material and discursive resources, in terms of the sorts of interactions and mobile communications they enable, the material projects they facilitate, and the discursive possibilities they provide for women to understand and represent themselves as modern, agential, and knowledgeable in a context of modernisation, including increased mobility system complexity. In this sense mobile phone infrastructure may be understood as a power resource that enhances women's capabilities. However, women's access and use of mobile phones is largely controlled by the men in their lives. Moreover, women actively govern themselves and their daughters to ensure that their telephonic comportment conforms to gender norms of women's modesty, respectability and responsibility for maintaining family honour. Consequently, mobile phones are simultaneously technologies of women's empowerment, challenges to local gendered power relations, and resources for the production of modern feminine subjectivity in a context of modernisation and enhanced mobility.

Community-centered microplastic monitoring in Nunatsiavut, Labrador

Riley Cotter, Memorial University

Community-based environmental monitoring projects in the Arctic often prioritize normative research ethics throughout the research process. Indeed, many community-based research endeavors seek to assimilate citizen researchers into existing research practice, often with a business-as-usual approach to leadership in research planning, analysis, and dissemination. This formula is relatively non-disruptive to dominant scientific

norms but does not attend to specific place-based research contexts, including the complex historical relations between communities and outside researchers. For instance, research in Inuit Nunangat has “largely functioned as a tool of colonialism, with the earliest scientific forays into Inuit Nunangat serving as precursors for the expansion of Canadian sovereignty” while “colonial approaches to research in which the role of Inuit is imagined as being marginal and of little value remain commonplace” (Inuit Tapiriit Kanatami, 2018, p. 5). The presentation will discuss an ongoing marine microplastic monitoring project that takes place in Nunatsiavut (the autonomous Inuit land claim area in Labrador) in collaboration with the Nunatsiavut Government. Counter to dominant articulations of citizen participation in research processes, this presentation will outline how our plastic monitoring study answers community-relevant research questions through a community-centered research approach. Specifically, we will discuss how our community-centered methods prioritize place-based conceptions of environmental plastics to meet specific community-determined research objectives. The presentation will contrast our rights-based approach with dominant modes of community-based research that often prioritize academic outcomes over local demands and desires. The presentation will conclude by positioning researcher—community relationships as an important factor for justice-based, equitable monitoring in the Arctic.

Climate and (mental) health in cities: Exploring the intersection of schizophrenia and atmospheric science in the context of an urbanizing world

Peter J. Crank, University of Waterloo

Health implications from a rapidly warming and urbanizing world have become a driving force behind public health research globally. Yet, the understanding of human psyche and mental health as it relates to environmental factors is nascent and poorly understood. I explore the effects of urbanization and heat on mental health as well as opportunities for positive change through urban design and green infrastructure intervention.

The use of nature-based infrastructure for mitigating coastal erosion in Newfoundland

Marina Cuselli, Carissa Brown & Joseph Daraio, Memorial University

By 2100, the sea level in Newfoundland is projected to rise 50-100 cm, which, in combination with increased precipitation, will increase exposure to coastal hazards. It is vital to protect coastal areas for their ecological and cultural value. Nature-based solutions for coastal protection are cost-effective, protect shorelines, benefit carbon sequestration, and restore habitats. Nature-based solutions have not been widely applied in Newfoundland, partly due to its unique coastal landscape, and our primary goal is to assess the potential use of such solutions on the island. The objectives are to i) characterize vegetation-coastal characteristic associations to determine the best species-environment matching for Newfoundland’s coasts and ii) conduct transplantation and species-suitability trials at a subset of coastal study sites. To meet these objectives, vegetation and substrate surveys were conducted in 27 bays on the Avalon Peninsula. Multivariate analyses of these data revealed associations between existing vegetation community assemblage and physical characteristics of coasts; e.g., beach pea was associated with sandy and rocky coastlines. A subset of the species found during our first field experiment was used in a transplant experiment in Ferryland, NL, a site of cultural importance currently threatened by coastal erosion. Monitoring and propagation trials will help determine which species best suit nature-based solutions. The next steps are to extrapolate species-environment matching to sites beyond those surveyed in this study. Ultimately, a framework for integrating nature-based solutions and a map of potential sites around Newfoundland will be developed for the use of nature-based solutions to mitigate coastal erosion.

Ex nihilo new cities in Nigeria: World-class aspirations and the rejection of the ordinariness of Nigerian cities

Favour Daka, Sarah Moser, Hannah Rebentisch, Rebecca Stewart, McGill University

There are 12 new master-planned city projects currently underway in Nigeria. The majority of these new cities are envisioned by their developers and builders to be solutions to some of the pressing challenges in Nigeria: housing deficits, inconsistent access to electricity, a lack of urban amenities and services, regional industrial inactivity, as well as poor transportation infrastructure. Nigeria's new cities are largely satellites of established major metropolises but are presented by their promoters as standalone cities providing a "world class" environment for local businesses, multinational corporations, and prospective residents. City builders in Nigeria seek to create "mirror opposites" of established cities; where established cities are perceived as chaotic, overcrowded, and dangerous, new cities are promoted as modern, luxurious, ordered, green, and securitized. Using the case study of new cities in Nigeria, this paper investigates the "world class" aspirations and rhetoric employed by their builders and their rejection of the "ordinariness" of established Nigerian cities, which are communicated through a variety of visual and discursive strategies, including fantastical renderings, grand development proposals, and seductive sales narratives and imagery. This paper also examines how Nigeria's new cities are molded and shaped by global actors who circulate urban policies, planning principles, and design techniques for the development of new cities that aspire to represent urban modernity in Nigeria.

Designing indicators to support the management of cultural ecosystems in the context of a Spruce Budworm Outbreak in Gros Morne National Park, NL, Ca

Camille Ouellet Dallaire & Rachel Jekanowski, Memorial University
Megan Samms, L'nu & Nlaka'pamux Interdisciplinary Artist & Farmer

Western Newfoundland is home to the unceded territories of the Mi'kmaq Qalipu Nation. These lands have recently seen an increase in Spruce Budworm Worm Outbreak (SBWO), leading to broadscale defoliation in the Gros Morne National Park area. There is evidence that these outbreaks have lasting ecological impacts on provisioning ecosystem services, e.g. timber, carbon sequestration, provided by boreal forests. However, there is little information on how SBWO impacts cultural, spiritual, and recreative ecosystem services (SCR-ES) – a suite of services that include a culturally meaningful component. such as fishing, hiking and creative inspiration. Because of their intangible and often non-economic values, these services are more challenging to quantify; yet, quantifying these services is an important step to ensure they are considered when deciding on a management strategy for SWBO. Our project uses a combination of geospatial modeling and art-based methods, including visual art and storytelling, to design quantifiable indicators at local and regional scales. We focus on recreational fishing, and creative and cultural inspiration based visual aesthetics, as these services are highly significant for for the communities of the regions and for the indigenous way of life of the Qalipu Nation. The methods designed in this project support an interdisciplinary and intersectional view of the SBWO in Western Newfoundland. It also provides a place-based approach designed for rural and remote areas that could be applied in other landscape changes such as large-scale natural resources developments.

Feminist cumulative impacts: How can we measure the impacts on women of new energy projects in remote, rural landscape and communities?

Camille Ouellet Dallaire & Kate Pendakis, Memorial University

Western Newfoundland is home to the Mi'kmaq Qalipu Nation and offers some of the best wind profiles to support the production of green hydrogen. Communities are small, rural and remote. One major project, lead by World GH2, has proposed two wind farms of unprecedented scale (150 turbines). Sizes of town will double with the influx of male workers, putting a strain on the socio-environmental systems that support local communities. There is a deep tension between the global need for these green energy projects and their potential negative impacts on social justice in local communities. Women are less likely to benefit from a job in these projects. As a result of the decreased carrying capacity of social-ecological services and through their proximity to male-dominated work camps, women will likely see a decrease in their quality of life, an increase in sexual harassment, and reduced access to health and education services. Drawing from cumulative impact assessment methodologies and feminist political ecology, we are interested in the quantification of the risk to

quality of life, by using indicators to capture safe communities and gender equality in the workplace and household. Our major contribution is to demonstrate how we can expand the modelling of nature's contribution to people to include "social contributions," which we define as the benefits of living in safe and just communities. Without commensurable information on these social impacts, a truly just, green, and intersectional transitional is impossible.

Charting Empowerment Pathways: A Framework for Understanding Women's Influence on Maternal Healthcare in India

Sukanya Das & Madhuri Sharma, University of Tennessee Knoxville USA

This paper presents a conceptual framework depicting the critical relationship between women's empowerment and maternal healthcare utilization in India. Drawing upon existing latest literature and theoretical perspectives, it efficiently outlines key dimensions of women's empowerment, including economic participation, decision-making autonomy, educational attainment, healthcare access, and social empowerment. The framework acknowledges various individual, familial, societal, and institutional factors influencing women's agency and empowerment trajectories. Additionally, it explores the mutual influence between women's empowerment and maternal healthcare utilization, emphasizing how empowered women are more inclined to access and utilize maternal healthcare services, thereby enhancing maternal and child health outcomes. Determinants such as education, socioeconomic status, cultural norms, healthcare infrastructure, and policy interventions are identified as pivotal factors shaping maternal healthcare utilization. By recognizing the interconnectedness of empowerment and healthcare, the framework offers perceptions into strategies for improving maternal healthcare utilization through initiatives aimed at promoting women's empowerment. It depicts the need to address structural barriers and inequalities to ensure equitable access to maternal healthcare services for all women in India. This conceptual framework serves as a valuable resource for researchers, policymakers, and practitioners aiming to develop effective interventions to advance women's empowerment and enhance maternal health outcomes nationwide.

Rural Mental Health: The Need to Rural Proof Policy

Leith Deacon, University of Guelph

Amanda Norton, University of Toronto

Socio-demographic inequities in mental health were exaggerated by the COVID-19 pandemic, with women experiencing greater household burden with less support in Canada and globally. While these patterns have been observed globally, there is a research gap in rural mental health during the COVID-19 pandemic in Canada. We hypothesize that there is a disparity in mental health decline during the COVID-19 pandemic between men and women. In rural Ontario, mental health was measured through a survey of approximately 18,000 individuals living in seven counties. In 2021, survey respondents were asked to rate their mental health prior to and during the ongoing COVID-19 pandemic. Responses to survey questions regarding, social, financial, and mental health support were then evaluated. We found significant disparities in mental health ratings before and during the pandemic between men and women. Women reported poorer mental health, increased substance use, and increased worry about social, financial and community stressors. Respondents who self-identified as a woman were associated with poorer mental health outcomes and therefore interventions should be specific to geographic communities as well as individual needs.

Temporality and 'becoming' in small communities: Unpacking narratives of time in immigrant (re)settlement initiatives

Jennifer Dean, University of Waterloo

Canadian governments continue to launch place-based settlement initiatives to incentivize immigrant settlement outside of traditional gateway cities and into small cities and rural communities. These initiatives aim to mitigate the economic and social impacts of population decline facing many smaller communities while concomitantly addressing the barriers to successful integration facing immigrants in urban areas.

Significant research and policy attention has focused on identifying the factors that attract and retain immigrants in place; yet, little attention has been paid to how constructs of time shape the expectations, decisions, and experiences of immigrant settlement and place. Accordingly, this paper examines the role of temporality and futurity in settlement decisions and place-based initiatives in smaller communities in Ontario, Canada. This mixed-methods study draws on survey and interview data from key informants, as well as focus group and interview data from resettled newcomers in smaller communities. Findings from key informants illuminate how preoccupations with past ‘timescapes’ shape communities’ plans for transformation from a shrinking and stagnant community into a vibrant one. The temporal sense of ‘becoming’ is sought through policies prioritizing immigrant attraction and retention. Findings further illustrate that newcomers adopt flexible constructions of time- slowing, pausing, speeding, imagining- to realize their own desires for socio-spatial belonging and ‘becoming’ in Canada. The presentation highlights a contrast between community-based concepts of time with immigrants’ personal temporal narratives and visions for life within smaller communities. The paper concludes with reflections on what temporal considerations can add to ongoing discussions of place-based settlement initiatives in smaller communities.

Using the healthy housing framework to research energy poverty: conceptual evidence from a case study in Bridgewater, Nova Scotia

Laurianne Debanné, Sophie Kutuka, Asia Benford, Mylène Riva & Runa Das, McGill University

The healthy housing framework offers a lens to analyse the impacts of housing on the health and well-being of residents. This framework commonly considers four pillars to healthy housing: cost (e.g., affordability), conditions (e.g., physical quality), consistency (e.g., security), and context of a dwelling (e.g., neighbourhood). Housing has long been understood as a central factor affecting a household’s experience of energy poverty, which refers to a household’s inability to afford or access enough energy services to meet their social and material needs. Conversely, as we demonstrate using a case study located in Bridgewater, Nova Scotia, there is a recursive relationship between energy poverty and the pillars of housing, affecting health. Data for this study were collected using in-depth interviews with households facing energy poverty in Bridgewater (n=39). From our research, we suggest that energy poverty compromises housing costs, conditions, consistency, and context. We also propose the addition of three new pillars of healthy housing to better encapsulate the ways housing and energy poverty relate to health: composition (e.g., household members), care (e.g., well-being needs), and constancy (e.g., ontological security). Our findings reveal that energy poverty can create financial housing burdens, deteriorate housing quality, lead to homelessness, socially and geographically isolate individuals, provoke interpersonal tensions, impede spaces of care, and produce feelings of disembodiment. Our research argues that energy poverty should be considered as intrinsically linked to the experience of households, especially in the place they inhabit and should be calling home.

Developing an Educational Toolkit that Targets Parabens Exposure Reduction from Personal Care Products in Ontario

Grace De Michino, Ranim Diyab, Susan Yousufzai & Caroline Barakat, Ontario Tech University

Women use an average of 13 personal care products (PCPs) daily, exposing them to over 100 different chemicals (Swei et al., 2023). Examples are parabens, commonly found in cosmetics and hair products as preservatives and fragrance ingredients. Exposure to parabens has been associated with an increased risk of breast cancer and endocrine disorders (Wan et al., 2021). To reduce women’s exposure to parabens, it is important to increase their knowledge, health risk perceptions, beliefs, and avoidance behaviour. Findings from a recent study suggested that women have low risk perceptions regarding six toxins commonly used in personal care and household products, with 28% indicating that they were not aware of parabens (Barakat et al., ongoing research). A systematic review exploring the effectiveness of educational toolkits in changing behaviour suggested that it can assist women in understanding parabens and their harmful effects (Yamada et al., 2015). This study aims to develop and evaluate an evidence-informed educational toolkit that reduces women’s exposure to parabens. Phase 1 involves conducting a systematic review that explores existing

educational toolkits for environmental health and PCP user behaviours. Guided by the Health Belief Model of behavioural change, phase 2 involves developing an educational toolkit in the form of a smartphone application to increase women's knowledge, risk perception, beliefs, and avoidance behaviours related to paraben-containing PCPs. Phase 3 will evaluate the effectiveness of the educational toolkit through a four-week pretest-posttest intervention study. Baseline and follow-up questionnaires will assess participants' knowledge, risk perception, beliefs, and behaviours.

The impact of food insecurity on mental health among older adults residing in low- and middle-income countries: A systematic review

Satveer Dhillon, Cornelius Osei-Owusu & Isaac Luginaah, Western University

Over the past few years, food insecurity has been increasing globally due to the COVID-19 pandemic, climate change, economic downturns and conflict and several other intersecting factors. Older adults residing in low- and middle-income countries (LMICs) are more vulnerable to food insecurity. While the impacts of food insecurity on physical health outcomes have been thoroughly researched, the effect on mental health outcomes remains under-researched, especially among older adults. Hence, this systematic review aims to investigate existing literature to assess how food insecurity impacts the mental health of older persons residing in LMICs. A systematic search of six databases and Google for studies was conducted. The search was limited to studies written in English and published between 2000 to the present. We identified 725 studies, out of which 40 studies were selected for a full-text review and 12 studies were included for a final analysis. The significant finding in all the included studies was that food insecurity is associated with the worsening mental health of older adults. We also found a complex interplay of factors such as gender, age, rural/urban and health conditions associated with the aggravation of several mental health outcomes. The findings of this study illuminate the need for improved food programs to improve food security and, consequently, mental health among older adults.

Deliberative Dialogues as method: Considering equity-responsive practices for global health governance

Jenna Dixon & Katrina Plamondon, University of British Columbia

Deliberative Dialogues are a form of research co-production grounded in dialogic and transformative pedagogies. As a research method, it offers a synergistic approach to collecting rich data while also bridging research into action, as participants engage in future-facing discussions around a topic of key importance and relevance to themselves and/or their work. Responding to the inequitable global distribution of vaccines during the COVID-19 pandemic, our study sought to better elaborate responsibilities and equity-responsive practices for global health governance through a cyclical Deliberative Dialogue approach (see www.solve-study.ca). An array of actors with expertise and experience in global governance (e.g., advocacy, journalism, academia, politics) from around the globe participated in five dialogues over two separate cycles. The dialogues naturally evolved to respond to equity concerns in the WHO-led INB "pandemic treaty" negotiations, for which the study team was granted approved stakeholder status to participate in the process. The experiences of this study offer a point of entry to consider the use (the how) and the usefulness (the why) of Deliberative Dialogues in global health and geography. Overall, the method offers a unique approach for researchers seeking meaningful "real world" outcomes through their work.

On the Farm in Northern California: A Case Study of Cannabis Agritourism

Susan Dupej, University of Guelph

Northern California, USA, is an historically world-renowned region for cannabis cultivation and one of the only regions in the world that offers cannabis farm tours commercially. This presentation shares research

from a case study of cannabis agritourism in the 'Emerald Triangle', a tri-county area consisting of Mendocino, Humboldt, and Trinity counties. The objective of this research is to better understand the relationship between tourism and agriculture in the context of the newly emerging cannabis industry. Specifically, the aim is understanding how a cannabis agritourism framework can be supported similar to that implemented at wineries and breweries where facility tours, sampling rooms and purchasing product grown on site (farmgate) are part of the visitor experience. The research reveals that tourism generates value for cannabis by telling a story of human-environment relationships with place that include local products and practices. When tour goers walk into a San Francisco dispensary after touring the farms of Mendocino and/or Humboldt counties, they look for product based on who grew it and where it was grown as opposed to what it's called. The inseparability of agricultural activities and place of production is the basis from which tourism tells a story that generates added-value to the cannabis supply chain.

Gendered experiences of climate change induced displacement: Exploring inequality, agency and resilience among internally displaced women

Jemima Duru, Zoe Meletis & Annie Booth, University of Northern British Columbia (UNBC)

The Intergovernmental Panel For Climate Change 2022 report states that largely due to climate change-associated sea level rise, Lagos (Nigeria) will be among urban centers at risk of submersion by 2050. This can already be seen in flooding-related annual displacement impacting twenty-percent of Lagos's population with women representing fifty-five-percent of displaced people. While men, women, and others all face displacement, systemic influences and gender norms, disproportionately affect women (Baada and Najjar 2020, UNDP 2022). Feminist scholars, particularly those from the Global Majority, also remind us that agency and ingenuity are assets that women draw upon during crises and displacement (Arora-Johnson 2011). Building on existing academic and applied literature, my research will explore the interplay between micro experiences and macro influences of climate change-induced displacement. Focusing on women's agency and resilience, my study will examine gendered experiences in the Lagos Internally Displaced People's (IDP) camp—a hyper-marginalized space. I plan to use interviews and focus groups to invite, analyze, and share individual and collective stories about women's experiences and livelihood. I aim to contribute qualitative data and a more intimate understanding of how displaced women in Nigeria experience and react to the nexus between climate change, displacement, and gender inequality. Although still in its initial stages, the ultimate goal is to contribute qualitative data for gender-sensitive policies and interventions, informing climate mitigation, adaptation and disaster risk reduction strategies that strive for a sustainable and equitable future amidst climate change-induced displacement.

Mapping a Community Vitality Index (CVI) for Canada using Census Data with Comparative Analysis for Newfoundland and Labrador.

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Kelly Vodden & Sabita Kerketta, Memorial University of Newfoundland-Grenfell Campus

Natural Resources Canada has recently published an on-line set of GIS-based maps of a Community Vitality Index (CVI) for all communities in Canada. The method used involved averaging percentile rank values for five indicators covering population growth, age structure, education, employment, and economic wealth. CVI values were first calculated for all communities from which spatial interpolations were generated to depict a Regional Vitality Index (RVI). Both CVI and RVI maps were generated for the 2001, 2006, 2011, 2016 and 2021 census periods providing the ability to examine changes in relative vitality over time. An initial analysis reveals notable and persistent differences in CVI/RVI values between Urban, Rural and Remote communities and regions, from high populated areas to lower populated areas, and for Indigenous versus non-Indigenous communities. Many marginal communities and regions exhibit persistently low CVI/RVI values revealing notable patterns of 'left-behind regions'. A follow-up study comparing CVI/RVI scores with other similar national level indicators for Newfoundland and Labrador raises important questions regarding how communities and regions are portrayed on a more local level in relation to vitality, wellbeing, resilience, and vulnerability.

Changing socio-spatial development and emerging food system challenges & opportunities for supporting immigrant wellbeing and inclusion

Sara Edge & Jenelle Regnier-Davies, Toronto Metropolitan University

Canada increasingly relies heavily on immigrants for population and economic growth. Changing urban, suburban and smaller communities must plan for immigrant settlement and integration in ways that support well-being and socio-economic stability, while dealing with rising anti-immigration sentiments and pre-existing structural inequalities that challenge racialized immigrants' ability to secure life quality. Equitable food systems and food infrastructure are increasingly recognized as vital to inclusive community (re)development and immigrant wellbeing, not only because they shape access to affordable, culturally appropriate food, but also provide opportunities for social encounter, information exchange, sustainable livelihoods and sense of belonging. Inequities in food systems experienced by racialized, immigrant populations have been a historic concern, further exacerbated by COVID-19. Yet the pandemic also compelled innovation and activism amongst marginalized migrants as they attempt to foster greater equity and inclusion in changing (sub)urban food systems. Few studies have documented immigrant's direct lived experiences, challenges and strategies in trying to strengthen access to affordable, culturally appropriate food and related implications for development. This presentation draws upon multiple mixed-method studies of diverse immigrant populations in the Greater Toronto Area to examine how racialized migrants are accessing and consuming culturally appropriate food, related barriers, and strategies for strengthening community self-determination of food system alternatives that better support wellbeing, belonging and inclusion. Findings give visibility to the challenges and innovations happening at the community level within shifting urban and suburban built forms and sociodemographic communities, critically interrogating who food systems are serving and not serving, and recommendations for the future.

Indigenous-led research in wildlife and fisheries co-management in Nunatsiavut

Monica Engel, Torngat Wildlife Plants and Fisheries Secretariat

Indigenous-led research is essential in wildlife and fisheries co-management as it integrates traditional ecological knowledge with scientific methods, thereby ensuring that management strategies are both culturally relevant and ecologically effective. Established as a fundamental element of the Nunatsiavut Land Claim Agreement, the Torngat Wildlife Plants and Fisheries Secretariat (Torngat Secretariat) supports the Joint Fisheries and the Wildlife and Plants Co-management Boards. The Secretariat's objective is to promote co-management-led research that enhances community stewardship and ensures the sustainable management of wildlife, plants, and fisheries, which are vital to the cultural, economic, and overall well-being of Inuit communities. This involves rigorous monitoring of animal populations and a thorough engagement with community perspectives to incorporate Inuit knowledge into management practices. Those efforts include the monitoring of Arctic char, snow crab, Torngat caribou, polar bears, and moose. Through education and outreach, we strive to enhance cultural continuity and knowledge exchange between elders and youth. The integration of Indigenous stewardship with scientific approaches is pivotal for developing management strategies that are both ecologically sound and culturally responsive. By employing this integrative framework, the Torngat Secretariat exemplifies a model of stewardship that advances the long-term health of both Inuit communities and the ecosystems they rely on. This model underscores the critical role of co-management and Indigenous-led research in achieving sustainability and resilience in wildlife and fisheries management.

Exploring the Crisis: Factors Affecting Large Animal Veterinary Services in Northern Ontario's Rural Regions

Sara Epp & Ferdous Huq, University of Guelph

Within Ontario, agricultural activities are expanding to more rural and remote locations as urban development pressures increase, land availability decreases and opportunities for new entrants remain scarce. Of particular importance is northern Ontario, where farmland is abundant, the cost of land is relatively low, and the climate

and terrain are well suited for livestock. Such farms, however, require consistent and reliable access to veterinary services to ensure optimal animal health and welfare, and to maintain food safety. With the promotion of the north by the provincial government and heavy lobbying by commodity groups, livestock farming in northern Ontario has expanded; however, services such as veterinary care, are not readily available. For many farmers, routine veterinary care is limited, while emergency care is restricted. For livestock farming to be viable, improved access to food animal veterinarians is necessary. This study identified under-serviced agricultural communities across northern Ontario and examined the real and perceived social and economic barriers that impact food animal veterinarian attraction and retention to these communities. This research identified a series of policy, program, and practice recommendations to improve food animal veterinary services to the north. Of importance, this paper demonstrates that access to veterinary care in northern Ontario is likely to worsen significantly over the next three to five years and that significant intervention by government, municipalities and academia are necessary to overcome social and economic barriers, improve attraction and enhance rates of retention.

Performing safety-talk in the regulation of homeless encampments in Maple Ridge, BC

Terri Evans, Simon Fraser University

As local governments in British Columbia struggle to address the effects of intersecting social crises (i.e. homelessness, toxic drug supply, and mental illness) given their limited jurisdictional authority, one response finding favour is the formalization of public and private enforcement and surveillance networks whose collective efforts work to displace and dispossess unhoused residents. Critical to this network and the management and regulation of social disorder more generally is the creation and growth of Community Safety Officer positions within bylaw departments. Using the suburban municipality of Maple Ridge, BC as a case study site, this research adds to the literature on carceral geographies by examining the roles, practices, spaces, and effects that Community Safety Officers have on residents experiencing homelessness, particularly those living in encampments. Through document analysis, semi-structured interviews and data collected through Freedom of Information requests, I will show that Community Safety Officers play an active role in the displacement and dispossession of encampment residents from public and private spaces, their efforts facilitated by a wider surveillance and enforcement network of police and private security officers whose coordinated efforts are focused on enhancing “safety”. The discourse of “safety” is used to mark unhoused people, their possessions, behaviours, and materiality as a threat to the public (whether real or perceived) and disruptive to the interests of property that align around (sub)urban redevelopment initiatives, especially in downtown commercial districts.

Mapping and Evaluating Urban Space Micro-amenities for Inclusion: A Feminist GIS Approach

Hawjin Falahatkar & Victoria Fast, University of Calgary

Deciding whether to traverse a sidewalk to reach a park or find a suitable bench in the park for a relaxing afternoon, women might consider various spatial factors: Is this place bright enough at night? Is that toilet clean and suitable for changing my baby? Is there any bench around the parking lot to take a rest? Are the sidewalks flat enough to carry the stroller? Does the building have automatic entrance doors so I can pass through without my wheelchair getting stuck? These are just a few of the numerous invisible yet essential micro-amenities affecting women’s urban life experience that need to be included in the design and mapping of urban spaces. Though seemingly simple, mapping and evaluating these features present challenges, due to their diverse types and scales, hindering comprehensive and efficient data collection and analysis. This research adopts an innovative Feminist GIS framework to bridge this socio-spatial gap by combining multidisciplinary ideas from feminism, urban design, accessibility research, and GIS-related technologies. Using this framework, micro-amenities within the University of Calgary’s campus open spaces are identified, mapped, and evaluated, as a technology-for-inclusion practice toward enhancing campus accessibility, safety, diversity, and spatial awareness for women, and ultimately for everyone. This research delves into conversations about another way of knowing technology and our world. It reassesses and redefines data and

mapping processes, advocating for prioritizing equity over efficiency to foster a sense of belonging and the quality of life for all community members.

Contested Energy Futures. Emerging Petro-states in the Caribbean and the Myth of a Just Energy Transition

Kesha Fevrier, Queen's University

In the Caribbean, debates about regional energy security and alternative energy futures centre significantly on hydrocarbon versus non-hydrocarbon energy sources, including how transitioning to renewable energy can be achieved. At the recently concluded COP28 conference, Caribbean leaders reiterated concern over the devastating effects of extreme weather events and the disproportionate vulnerabilities faced by Small Island Developing States, raising the familiar talk of the need for climate debt financing through a Loss and Damage Fund. Leaders were also on hand to discuss their collective efforts at building climate resiliency through low-carbon development plans and transitioning towards greener, cleaner energy sources. However, energy development initiatives in the Caribbean region have consistently embraced a private sector approach that reproduces existing dependencies rather than enhancing the region's energy security and sovereignty. Conflicting geopolitical interests, high levels of private capital, and foreign direct investments consistently hinder efforts to transform the region's energy landscape and, thus, increase its vulnerability to a worsening climate crisis. Guyana's controversial offshore oil and gas project exemplifies how Caribbean governments prioritize the interests of transnational capital and succumb to the pressure and promise of fast-paced development financed by oil dollars, despite opposition from local communities and the high costs of oil-related disasters for Guyana and the Caribbean Region more broadly. Regional energy democracy calls for a rethinking, reorganization, and re-imagining of a just, Caribbean-centric energy landscape that breaks from historical and contemporary patterns of dependence on foreign oil imports and predatory forms of foreign investment in the region's energy sector.

The Persistent Geographies of Northern Militarization

Matthew Farish, University of Toronto

The latest rush of Canadian politicians and military leaders to advocate for additional northern military spending, infrastructure and activity is a reminder of the North's seeming permanence, within a powerful and widely held form of nationalism, as a domain of appropriate militarization. This vision has lingered even as certain place-based consequences of militarization have been revealed and addressed since the end of the Cold War, including the remediation of some sites at great expense. Working within the broad, interdisciplinary frame of slow violence, this paper reckons firstly with the sweep of militarization in northern Canada since World War II. But while I will draw together specific testimonies, particularly those of Indigenous northerners advocating on behalf of communities and ecologies, and while it is crucial to be mindful of the contexts of militarization and counter-militarization, this paper is not primarily a tour of contaminated sites or regions – and responses, sometimes complex, to that contamination. Instead, it is concerned centrally with the reaffirmation of a disconnection that permits continued damage to northern lives and landscapes, damage that is overwhelmingly licensed and enacted from the south. The sources of that disconnection include perpetual academic and popular invocations of sovereignty and military necessity, which notably pay little attention to ways of seeing, knowing, and living in the North that lie beyond and are often in opposition to the version of the region so intensely defined by the Canadian state.

Hostile architecture: Enforcing geographies of the carceral continuum

Melissa Folk, Queen's University

Kirsten McIlveen, University of British Columbia and Capilano University
Sid (Kim) Jackson, Wilfrid Laurier University

Increasingly, hostile architecture is being installed in urban space under the label of Crime Prevention through Environmental Design (CPTED) to maintain colonial property order and control over poor, unhoused, Indigenous, and racialized, disabled, and LGBTQIA+ communities. Certain scholars and designers recognize hostile architecture as a problem but settle for reformist urban design policies without historical context that re-inscribe the logic of oppression. Since hostile architecture is rooted in a longer history of colonial racial capitalism, I establish a concrete understanding of the conceptual and historical foundations of hostile architecture that are based in maintaining race and class-based hierarchies. Through an abolitionist methodology, this paper will focus on hostile architecture as a node of the carceral continuum network that seeks to document, police, and control the behaviours and bodies of citizens in contemporary cities. Examining this history will provide a tool to build a better future (Gilmore 2018) without oppressive architectural strategies that dehumanize, criminalize, and displace communities. [Gilmore, Ruth Wilson. "Making Abolition Geography in California's Central Valley." *The Funambulist*, 21. December 20, 2018.]

Applying the ecosystem services approach to improve conservation governance in the province of Quebec, Canada

Raphaëlle Fréchon, Marie Saydeh, Daniel Schönig, Kloé Chagnon-Taillon, Lynda Gagné, Julie Lafortune & Jérôme Dupras, Université du Québec en Outaouais

The ecological economics research chair of Canada completed a research project with the government of Quebec, Canada, assessing the potential outcomes of the ecosystem service approach for nature conservation. The three-year project was divided into six research activities and was held in northern and southern regions of Quebec to explore various land management and conservation contexts and contrasting social, ecological, and economical dynamics. A literature review on ecosystem services and conservation as well as socio-ecological portraits of our study areas were conducted as the first steps and were the pillars supporting further analysis. Forward, we identified, modelled, and mapped between four and five quantifiable ecosystem services using Integrated Valuation of Ecosystem Services and Tradeoffs (InVEST) modelling tools. We then highlighted the ecosystem services hotspots, the capacity and contributions of protected areas in generating ecosystem services as opposed to other land uses. Afterwards, we investigated several economic valuation options for these ecosystem services in both study areas to compare the economic contribution of protected areas in ecosystem service supply and to guide further analysis. In parallel, we evaluated governance dynamics and socio-cultural services in southern Quebec through a social interdependency matrix. In northern Quebec, we mapped socio-cultural services of indigenous communities combining arts-based methods and adapted photovoice. Finally, we developed a decision-making tool to combine the different variables identified by the quantitative and qualitative approaches mobilized in this project. We wish to present and share the outcomes of this transdisciplinary research project.

Factors influencing the distribution of the threatened Eastern Waterfan (*Peltigera hydrothyria*) within Atlantic Canada: a MaxEnt modeling approach

Miranda Frison & Sean R. Haughian, Saint Mary's University

Peter Bush, Saint Mary's University, Nova Scotia Department of Natural Resources and Renewables

The project will focus on creating a regional species distribution model for Eastern Waterfan (*Peltigera hydrothyria*), which is a threatened lichen species within Atlantic Canada. A landscape-scale model will be used to understand habitat requirements and predict occurrences of this aquatic lichen. Main data sources will include Canada's National Hydro and Road Networks, ClimateNA, and Global Forest Watch International. MaxEnt software will be utilized to predict species occurrences with a backwards stepwise selection process to determine the most important predictor variables and prevent overfitting. Variable importance will be

evaluated using a jackknife test. The model fit will be determined using area under the curve and evaluated with cross-validation. Habitat suitability maps will be presented to demonstrate the ecological range of Eastern waterfowl within Atlantic Canada.

Where are you, Wisqoq? Characterizing Black Ash Demographic Niches Across the Island of Newfoundland

Amy Frost-Wicks & Carissa Brown, Memorial University of Newfoundland and Labrador

Black ash (*Fraxinus nigra*) is one of the island of Newfoundland's rarest native tree species. Considered to be critically endangered on a global scale, it is listed as Threatened in Newfoundland under the Endangered Species Act. Black ash is a culturally significant species which also fills a unique ecological niche within wetlands and riparian forests. Despite its importance and status as a Species At Risk, black ash has historically been understudied throughout its North American range. This holds true in Newfoundland, where very little is known about the species' contextual distribution, abundance, and biology. My study aims to characterize the microsite conditions in which black ash grows at various life stages (seedling, sapling, adult, and reproducing adult) and growth forms (single stemmed and shrubby), across its provincial distribution. I will also examine the presence, severity, source, and geographic patterns of black ash herbivory on the island of Newfoundland. I will collect field data on microsite parameters (canopy cover, soil pH, soil moisture, soil texture, topography, associated plant species, evidence of predation) at known black ash populations throughout the province. Microsite data will be plotted using non-metric multi-dimensional scaling ordinations to identify specific levels of environmental variables that are most closely associated with each size class and growth form. This knowledge will contribute to black ash conservation efforts in Newfoundland by informing both searches for the species in new locations and restoration planting efforts in appropriate habitats.

Speaking for the trees

Bojan Fürst & Carissa Brown et al, Memorial University of Newfoundland

Humans love stories. That's how we learn, entertain each other, and explore the edges of what is possible. Researchers are not always great at telling stories of their research and there are good reasons for it. This presentation will explore how we can harness our voices to tell complex and nuanced stories that provoke thoughtful reflection as well as help us imagine different futures. The focus will be on two radio documentaries and an audio-visual piece where trees are as much characters as they are research collaborators. I will use those documentaries to explore how we weave different voices together in ways that allow us to shift the perspective and create a narrative that places research at the centre of a speculative piece about our relationship to the world around us and the species we share it with. We will explore how stories allow us to "make familiar strange" and explore previously taken for granted places or phenomena such as an old willow tree on an urban river bank or a clump of invasive goutweed.

Sport Spaces, Agricultural Exceptionalism and State-Relations – Towards a Protein Ecology of the Toronto Blue Jays Loonie Hot Dog Night

Caroline Fusco, University of Toronto

Sorenson (2014) argues that it is the responsibility of intellectuals to think the unthinkable and to challenge the "deep conviction to human exceptionalism and a lack of understanding of how oppression of other animals and of human groups are entangled" (p. xv). I examine the spatial entanglements between sport, the state, and animal agriculture through the consumption of (dead) animal protein in a sports stadium. Young (2014) labelled sport a "carnivorous culture" (p. 389), and sports stadiums are key sites of that carnivorous culture. On July 18, 2023, at a Major League Baseball game in Toronto between the Blue Jays and the San Diego Padres, fans consumed 75,173 Loonie Dogs. The Blue Jays host their Loonie Hot Dog night every Tuesday during the regular season. Schneiders (owned by Maple Leaf Foods) is the Official Hot Dog of the

Toronto Blue Jays, and their product creates a Tuesday night place-making event. During this celebratory event, the carceral lives and deaths of the animals, who make the protein up, are invisibilized, as they circulate as rendered capital investments and consumable products. This constitutes what Struthers Montford (2019) argues is the “successful operation of agricultural power that ontologizes animals as always already food” (p. 225). The hyper-consumption of the protein Schneiders produce (rendered through the amalgamation of, mostly, pigs’ body parts + additives) is intricately connected then to the Blue Jays organization, the Rogers Centre, Canadian animal agriculture and state relations, which are all hyper-celebrated in this space through agricultural and human exceptionalism, capitalism, athleticism, spectatorship, and nation-making.

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Cumulative effects: Living in the scars and wounds of invasion and betrayal

Leora Gansworth, York University

This presentation is informed by more than ten years of research on freshwater aquatic environments. Its specific focus is a revealing of research themes identified in settings where First Nations people in “Canada” and citizens of tribal nations in the “United States” have been reduced in (or outright denied) decision-making authority to manage relationships and responsibilities to lands, waters, and other intergenerational, multispecies, multi-dimensional ecologies beyond human design and structure. Most commonly, these environments are affected by deep military histories including the imposition of water-based boundaries, borders, and laws enforced with weaponry, surveillance, and other tactics of occupying state regimes. While the “northern” borders demarcating claimed lands of Canada and the US may be perceived as lacking the decidedly dramatic spectacle of other militarized zones, this presentation argues that their presence and continued enforcement is founded on and creates forms of insidious structural toxicity stemming from embedded settler colonial violence and the frequent refusal to honor established agreements set for territorial access founded in coexistence (i.e. treaties). The presentation is both praxis-based in Indigenous geographic methods and creatively conceived, using a reflexive and dialogic method of critical and creative writing tethered to the practice of Anishinabe *wejibabandam* (to dream). It is clear from persistent and enduring interventions by Indigenous individuals and nations that the arm of the colonial project which seeks to eliminate those labeled “Indigenous” is a shifting and yet ultimately short-lived, unsustainable endeavor. The sharing of this contribution stems from a desire to dream of reciprocal and mutually nurturing relations founded in environmental justice, existing beyond colonial occupation and its attendant failures.

To dream of past and future roots: poems and intentions

Leora Gansworth, York University

This contribution foregrounds an Anishinaabe futurity of healing and relationship with the nation of trees. Present moments occur amidst overlapping threats of myopic detachment from root structures that have been disrupted and denied continuity. Against the complex and often technocratic origin of top-down climate solutions, the poetry and expression in this segment suggests attention to the foundational elements of interdependence between trees and humans.

“Hearing the Untold”: Using Reflexive Methodology for Understanding Migrant Resilience – Insights from Two Research Projects on International Students in the Greater Toronto Area and Greater Sudbury

Raymond Garrison, Toronto Metropolitan University

Individual resilience may be broadly defined as the capacity to adapt to, recover from, and/or overcome adversities and obstacles to better one's situation. This may involve several strategic choices, among context-dependent options (i.e., location, availability, access, networks, social structures, institutions, etc.). Resilience can be a very individualistic attribute, which changes over time. It is part of one's journey, as they navigate challenges in their everyday life. By adopting a mode of 'reflexivity in action' throughout the co-production of interview data, interviewers can better understand the construction of responses and potentially have greater access to personal insights, uncover deeper layers of experiences, and elaborate the meanings they hold for international students themselves. Such inter-subjective engagement can reveal how obstacles and adversities have been perceived and ultimately overcome, particularly in the face of intertwined barriers associated with employment, housing, and food insecurity which most international students face. This interview data are often intensely personal and sensitive, requiring the building and continuous maintenance of "connection" and rapport with the participants throughout the interview process. In this presentation, examples will be drawn from two research projects examining international student experiences in Toronto and Greater Sudbury to empirically demonstrate how reflexive methodology can contribute to a better understanding of international student resilience. This is the first stage in policy development – knowing what has been tried, what has worked, what has not, and what type of assistance would help a particular group of migrants.

Research on the impact of multi-scale urban environment on active travel

Xin Ge & Feng Zhen, Nanjing University

The influence of the urban environment on health through active transportation and physical activity behaviors has been a focus of scholars worldwide. However, research examining the impact of the built environment at commuters' origins and destinations on active transportation is scarce. This study, using Shenzhen as a case study, leverages big data on transportation environmental characteristics to deeply analyze the impact of urban environmental factors on walking and cycling through a multilevel linear model (MLM) across various scales: parcel, block, and district. It particularly highlights the spatial heterogeneity of active transportation commuting methods and the significant influence of the multi-scale urban environment on commuting mode choices. The findings indicate that factors such as the density of permanent and working populations, bus stop density, green space attractiveness, POI concentration, road network density, and average commuting distance and time significantly affect the proportion of walking and cycling trips at the parcel level. Interestingly, the degree of land use mix did not significantly impact the choice of active transportation modes at either origin or destination. At the street level, the employment rate within the area, maximum congestion index, subway station density, and public safety index were found to significantly influence active transportation trip proportions. The study's comparison of origin and destination models reveals the complex interplay of urban environmental factors on active transportation mode choices and underscores the varying influence of factors across spatial scales. This research is vital for urban planners and policymakers, offering insights into promoting active transportation mode selection through urban environmental improvements.

Evaluation of local plans using an integrated planning lens: A case study of the Comox Valley Region, British Columbia

Mohaddese Ghadiri, University of Victoria

An integrated planning lens in strategic and comprehensive plans is required for local food systems' sustainability since these plans include strategies and considerations related to food system objectives. This study employs the content analysis method to evaluate the degree to which integration is present in six plans in the Comox Valley region of British Columbia, Canada. The content analysis builds upon previous research that developed a framework to depict linkages among different aspects of food systems sustainability, climate action, biodiversity conservation, and human health by conducting and analyzing stakeholder interviews and

workshops. This content analysis qualitatively and quantitatively analyzes six regional and urban plans and identifies their thematic linkages. This research then draws on the interviews, workshops, and document analysis findings in order to develop an analytical framework to analyze the six plans. The resulting framework encompasses all identified elements and their linkages across eight main themes. The results reveal a high level of integration in three themes: land and infrastructure, climate actions and risks, and biodiversity conservation practices. The study also confirms the relevance of the analytical framework to other types of plans, underscoring its significant potential as a powerful instrument for enhanced integrated planning design. The resulting analytical framework can help planners and policymakers understand and map the multifaceted interplay between different themes, fostering more comprehensive and practical approaches to multi-level development and governance.

Finding and Retaining Workers: Innovative Approaches to Addressing Labour Force Challenges in Rural Ontario

Ryan Gibson, University of Guelph

The future of rural businesses and communities is dependent on appropriate and effective workforce development strategies. Rural businesses and communities are confronted with challenges in accessing relevant human capital to support, maintain, and grow their operations. The current gap between labour force demand and labour force availability is not new to rural communities. This phenomenon has been decades in the making and influenced by both micro and macro stimuli. The COVID-19 global pandemic has further illuminated rural workforce gaps. Without deliberate strategies, rural businesses and rural economies will be negatively impacted. This research examines the current labour dynamics experienced in rural Ontario communities through a mixed methods approach involving a survey of economic development agencies and case studies of innovative approaches to addressing labour force pressures. The research illuminates the need for place-based strategies that are collaborative and foster innovation.

Mapping Sustainable Futures: Exploring modes of interactivity and imaginaries represented through interactive digital maps in the agri-food sector

Alesandros Glaros, Roberta Hawkins & Jennifer Silver, University of Guelph

Human-environment relationships are increasingly visualized and represented through interactive digital tools. As digital geographers and science and technology scholars have argued, however, digital tools are not neutral artifacts; they bury assumptions about (un)desirable imaginaries of sustainability within them. These imaginaries may clarify or obfuscate alternative geographies and power structures. In this paper, we thematically analyzed a suite of interactive mapping tools used within the agri-food sector to identify their implicit and explicit futures. We observed that the digital infrastructures behind maps allow for varying degrees of interactivity, from simply clicking points on a map to crowdsourcing data. Further, we found that agri-food futures visualized through these maps are many and contestable, often focusing on participation in local food economies as well as monitoring risks to food production and supply. Where deeper forms of interactivity are enabled through digital tools, we argue there is stronger potential for public participation and agency in imagining diverse futures. Beyond what is presented through interactive maps, how they are set up matters. We conclude by highlighting interactive mapping efforts and possibilities that explore alternative geographies and imaginaries.

Labour and lives of student-migrant-workers in short-term rental cleaning: spatio-temporal dynamics of indirect platform labour in Montréal, QC

Kiley Goyette, University of Toronto

Internal migrant students who worked as cleaners for short-term rentals (e.g. Airbnbs) in Montréal, Canada between 2017-2020. The multiple subject positions of these workers as students and migrants (i.e.,

student-migrant-workers following Neilson 2009; Maury 2017) converged to make their labour and lives complimentary to the spatio-temporal demands of short-term rental operators, to the benefit of the various intermediaries supplying labour to the niche market of short-term rental cleaning. Factors contributing to student-migrant-workers' participation in this sector include language barriers, housing resources and journey-to-work time, constrained work hours, seasonality of course loads, and limited social resources. At once restricted in their employment options and not exclusively dependent on this work, student-migrant-workers illustrate characteristics that these intermediaries require of the workers they assemble into the flexible labour force upon which STR platforms depend. While student-migrant-worker study participants were relatively privileged and from the Global North, they and their co-workers from the Global South were nonetheless subject to precarious conditions through routine illicit practices by their employers.

Care to play? Exploring the benefits and challenges of gaming for conservation education and outreach

Leah Govia, University of Guelph

Supported by almost three billion players and a burgeoning e-sports industry, video games continue to capture people's attention around the world. A popular factor drawing this attention are the environments and more-than-human encounters that developers craft, from historical landscapes to cyborg wildlife. Throughout their games players come to interact with such digital natures as they navigate, care about, or depend on them for the game to progress. Increasingly too, genres like "serious" and simulation games are designed with the aim of fostering environmental awareness by bridging offline natures with digital natures in-game. This paper explores how digital game design, and gaming more broadly, can contribute to conservation outreach/education. First I combine a walkthrough approach with a close reading of three games: Unseen Empire, Shelter, and Pokémon Go. Analysis of these games presents three pathways used to encourage interest in conservation: 1) Playing the conservationist, 2) Playing the animal, and 3) Playing with conservation. The benefits and challenges of these pathways are then examined drawing on theory from critical game studies and digital geography. For each pathway, I discuss how the emotional and psychological effects of gaming could motivate multispecies connection and conservation awareness, specifically focused on player experiences. Overall, the paper is an addition to work emerging at the intersection of digital geography and political ecology. It contributes to discussions on the potential impacts of digitally mediated human-environment relationships and how digital practices are used to promote conservation outcomes to the public.

"Gateway to the North": Legacies of NORAD's militarized landscapes in North Bay, Ontario

Kirsten Greer & Katie Hemswort, Nipissing University

A prominent feature at CFB North Bay is a McDonnell F-101 Voodoo placed on a pedestal as part a commemorative Air Defence Park dedicated to the 22Wing, which served North American Aerospace Defense Command (NORAD). Situated adjacent to the US-Canada NORAD headquarters, the nuclear-armed fighter-bomber is accompanied by a radar and antennas as examples of aerospace surveillance infrastructure during the Cold War. The base itself housed the 414 Squadron of Voodoos charged with patrolling aerospace across North America. These interceptor aircrafts militarized not only the region's landscapes but also soundscapes with jet noise and sonic booms justified to communities as "the sound of freedom." Placed as static symbols of the past, the park reflects the city's strategic location as the "Gateway to the North," and therefore to the Arctic. In this paper, we address North Bay's Cold War military landscapes through the concept of "legacy" to rethink critical military landscapes in Canada. NORAD sits on the traditional lands of the Nibisiing Anishinaabeg and the lands protected by the Robinson Huron Treaty of 1850, which ties NORAD operations to the legacies of settler colonialism and colonial encroachment. Furthermore, recent studies reveal PFAS or "forever chemicals" contamination from the airfield. The extent of the toxic legacies are still unknown, especially in the surrounding waterways and the lasting vibrational

impacts of supersonic jet on more-than-human environments. As historical-cultural geographers, we suggest critical ways of “re-reading” beyond these Cold War landscapes to illuminate their complex, layered, and indeed violent, histories and legacies.

Gouvernance et stratégies de gestion de l'aide axées sur la résilience systémique en faveur de la justice climatique au niveau des Petits États insulaires en développement (PEID) de la Caraïbe.

Yvon Guerrier & Nathalie Gravel, Université Laval

Les PEID, situés sur les tropiques, ont des potentialités exceptionnelles en matière de biodiversité d'importance mondiale et d'espaces écotouristiques attractifs. Cependant, ils sont, non seulement, exposés à des risques géodynamiques majeurs, mais aussi et surtout, se trouvent sous la menace constante des aléas naturels. Dans certains contextes, les problèmes de gouvernance ne font que compliquer davantage leur fragilité et leur vulnérabilité multidimensionnelle. La majeure partie d'entre eux sont des pays sous régime d'aide, leurs économies restent assez peu développées et instables. Ils sont caractérisés par des niveaux de développement humain dispersés et des contextes socio-écologiques hétérogènes. La fréquence et l'ampleur de ces événements dévastateurs deviennent de plus en plus épouvantables. Certain.e.s auteur.e.s attirent l'attention sur des menaces d'ordre existentiel. Ce qui les oblige nécessairement à développer des stratégies d'adaptation et d'atténuation. En manque de moyens et de capacités, certains PEID tentent de mutualiser de leurs ressources. Leurs principaux axes de collaboration se limitent à des petits projets pilotes et des actions de plaidoyer reliés aux séries de négociations multilatérales. Leur modèle de coopération semble confronté à de sérieuses contraintes et — serait victime du manque de considération des grands émetteurs historiques de gaz à effet de serre (GES). En raison de tout ce qui précède, la question de centrale de recherche est formulée : Comment, dans une perspective de gouvernance orientée vers la justice climatique, les approches basées sur la résilience systémique peuvent-elles aider les PEID de la Caraïbe, sous régime d'aide, à faire face aux situations de vulnérabilité multidimensionnelle ?

Voices from the edge: Melting Route Blanche and the Politics of (Im)mobility on the Lower North Shore (Québec)

Laurie Guimond & Maude Normandin Bellefeuille, Université du Québec à Montréal

One of the consequences of climate change is the forced mobility and displacement of populations related to multiple hazards making their living environments uninhabitable or too risky to inhabit. On the opposite, climate change can also prevent local and regional mobility. What are the consequences of forced immobility in small northern communities already precarious economically and sociodemographically? How is being stuck affecting northerners' territorialities? Are the voices of the immobile populations living in remote northern communities heard? Based on research carried out in partnership with the regional county municipality of Golfe-du-Saint-Laurent (commonly known as Québec's Lower North Shore) and Innu communities in 2023-24, this paper explores how the impassability of the Route Blanche – the winter trail – is transforming the modes of dwelling and the territorialities of the local populations. It sheds light on their everyday life mobility needs today and the strategies they adopt towards institutional and policy inertia. This paper puts forward the inestimable value of mobility in northern communities at the edge.

Qikiqtait: Progress On An Indigenous-Led Protected Area For The Belcher Islands Archipelago

Joel Heath & Lucassie Arragutainaq, The Arctic Eider Society

Sanikiluaq is taking a whole-of-community approach and working with the Qikiqtani Inuit Association to create Qikiqtait: an Inuit-led protected area for the Belcher Islands Archipelago. Qikiqtait will support the unique habitats and wildlife that rely on the islands, a local conservation economy and will be inclusive of

terrestrial and marine habitats managed through Inuit-led research and stewardship programs, governance models, and management plan for the region. To-date, 200+ community members have been crowdsourcing a resource inventory and baseline data for the protected area using the SIKU app, including fish, mammals, birds, invertebrates and plants. This comprehensive approach has allowed generating calendars of seasonal resources and heat maps that provide a basis for measuring ongoing changes related to human impacts and climate change. The project contributed substantially to food security during the pandemic: over 20,000 posts and 1,500,000 km of hunting trips directly involving women, men, elders and youth from across the community in the project have been documented, with over 20% of the community now on SIKU and tracking the project's progress. This is providing key data for the feasibility study and a reference point for ongoing monitoring and management, setting a new precedent for community-driven stewardship. Importantly, this approach allows anyone in the community to get involved, which will ensure more effective management and engagement in the project and conservation efforts long-term. It supports a holistic approach to food-security, conservation and the development of conservation economies by and for Indigenous communities, and is a model for guardians programs and Indigenous-led management that can be applied to other regions.

A quantitative content and critical discourse analysis of seaweed-based fertilizer reporting in Newfoundland and Labrador

Jakobus Hettinga, Katherine Pendakis & Christina Smeaton, Memorial University

For centuries, seaweed (SW) has been a culturally significant soil amendment and fertilizer used across coastal Newfoundland and Labrador (NL). By employing a quantitative content analysis and qualitative critical discourse analysis of historical reporting of SW-based fertilizers in NL, this research seeks to answer the following questions: 1) How has SW been historically used by NL in agriculture? 2) What temporal and geographical trends are present in SW reporting in NL media? and 3) What are the socio-cultural, economic, and political significance of SW-based fertilizers in NL? Data was accessed through Memorial University's digital archives (n = 510, 1819 to present) including op-ed pieces, newspaper and magazine articles, and public government publications. Through quantitative analysis, clear trends present themselves, with SW-based fertilizer reporting piquing in the 1910s and 1920s. Additionally, after steadily decreasing, the temporal analysis showcased a recent resurgence of SW fertilizer reporting across eastern coastal communities of NL. Moreover, with an emphasis on historical events, the critical discourse analysis will discuss how media and government portrayals of SW-based fertilizers and local perceptions have changed over time, while further explaining temporal and spatial trends across the province. With increasing traditional farming and gardening popularity in reporting in NL, as well as the emergence of pilot-scale seaweed farming in the province, key insights from this research may shed light on the cultural significance and perceptions of NL's seaweed resources and help identify the missing voices.

Smart Citizens Enabling Resilient Neighbourhoods (SCERN): Participatory Mapping Platform for Resilience Planning at a Neighbourhood Scale

Christopher Macdonald Hewitt, Emily Rank, Ketan Shankardass & Haley Sheppard, Wilfrid Laurier University

Suzanne Elayan, Marin Solter & Martin Sykora, Loughborough University

Rob Feick, University of Waterloo

Oliver Grübner, University of Lucerne

Krystelle Shaughnessy, University of Ottawa

Neighbourhood planning is important in a number of contexts. At an intra-urban scale, social and health indicators suggest that everyday austerity, discrimination and public emergencies impact some neighbourhoods - and certain communities within neighbourhoods - more than others, and in profoundly different ways. For example, during the COVID-19 pandemic, stay-at-home orders, social distancing and isolation requirements, as well as the altered business and employment conditions, accentuated pre-existing

differentials in vulnerability and exposed novel dimensions of community resilience. In particular, new light has been shed on the importance of public and digital places as loci for social interactions, information, recreation, and economic activity, as well as community members' wellbeing and resilience. Drawing on seven years of academic collaboration, SCERN (Smart Citizens Enabling Resilient Neighbourhoods) has developed an interactive method for leveraging and integrating forms of citizen expression and participation on public and digital places to build knowledge of community- and individual-level stress and resilience related to these daily and potential stressors. This paper presents the development of a method for participatory mapping practices through an Esri platform that enables community members to directly record personal and collective geographies about daily stress and resilience. This approach can be applied to a range of resilience planning contexts.

Practicing “Netukulimk”: setting the context for resurgent governance of Culturally Significant Species in Mi’kmaq territory

Ross Hinks, Miawpukek First Nation

Jessica Lukawieki, University of Guelph

The resurgence of Indigenous systems of environmental governance is, across many contexts, working to subvert existing colonial legacies, which have too often led to the dispossession and denial of Indigenous Peoples lands and lifeways. In spite of centuries of encounter with such colonial legacies, many Indigenous Nations have retained connections to their lands and the species that inhabit them, and/or are actively working to strengthen these connections through various community institutions, both formal and informal. We worked with Miawpukek First Nation in south-central Newfoundland, who are actively working to establish programs and foster Indigenous protocols that protect Culturally Significant Species (CSS) like moose and salmon. We identify a list of biocultural processes that set the context for the resurgence of Indigenous-led governance of CSS, or the practice of Netukulimk – a Mi’kmaq word that references “our livelihood as it relates to most of the natural resources and species.” These biocultural processes distinguish Indigenous-led stewardship of CSS from colonial conservation because of the biocultural co-benefits that emerge, due to a blended focus on both nature and culture. Supporting the Indigenous led governance of CSS is a powerful pathway through which the conservation and protection of CSS can be pursued. Governments, NGOs, and academics wishing to support the biocultural recovery of CSS can do so by strengthening any of the biocultural processes identified in this chapter, as well as others that have yet to be identified in future research.

Indigenous-led Conservation: moving beyond colonial conservation models for the stewardship of lands, territories and biocultural life-ways

Victoria Hodson, University of Guelph

In December 2022, at COP15 in Kanien’kehà:ka territory, Parties to the UN Convention on Biological Diversity (CBD) adopted the Kunming-Montreal Global Biodiversity Framework (GBF), a set of international commitments for biodiversity conservation spanning the next 30 years. As a signatory to the CBD, Canada is required to implement the GBF domestically through its own National Biodiversity Strategy. Importantly, the GBF acknowledges the role that Indigenous Peoples play as stewards of biodiversity and, as a result of ongoing work by Indigenous organizations, includes clear language on Indigenous rights. Through a political ecology analysis of both media sources and ethnographic research, this paper will analyze how Indigenous-led conservation was represented by state actors in the lead up to, and during, COP15. In doing so, I seek to better understand how resurgent forms of Indigenous-led conservation fit within the broader conservation agenda of the Canadian state, and how such governance is characterized by government actors. Moreover, I argue that the negotiation of the GBF presents an opportunity to investigate the current resurgence of Indigenous-led conservation within the complicated nexus of international and domestic conservation policy. This paper reflects on this complex political terrain, as well as the insights it may offer towards a more just, transformative, and reconciliatory vision of conservation founded on the inherent rights of Indigenous Peoples.

Periods in Prison: Menstruation Edgework and Punitive Space

Alicia Horton, Douglas College

The social control, stigma and spatial exclusion of menstruating bodies and prisoners' bodies are both well-documented. Yet despite this, little is known about the intersection of menstrual and carceral spaces, menstrual experiences along the carceral continuum, or the menstrual dimensions of the gendered, embodied pains of imprisonment. This research talk presents qualitative data from an ongoing project on prisoners lived and embodied experiences with menstruation in carceral spaces in the Canadian context. Former prisoners report that their menstruating bodies are weaponized by prison staff via the denial and confiscation of menstrual supplies, distribution of menstrual stained underwear, and strip searching of menstruating prisoners, among other issues. Scholars have described edgework as "an approach to the boundary between order and disorder, form and formlessness" (Lyng 1990:858). Lived experiences of menstruation at the edge highlight these notions of order/disorder and intersections of punishment, gender and resistance in carceral spaces. This exploratory, qualitative project embraces a 'methodological edgework' approach that involves collaboration across disciplines and between researchers with and without lived experience with prisoning. Additionally, the project is also on the edges of scholarship as the first exploratory study of periods in prisons in the Canadian context.

Animals in Development: A Canadian Case Study

Alice Hovorka & Danielle Legault, York University

Food animals such as cattle, chickens, goats, fish and bees are central to Canada's international development interventions aimed at addressing global poverty and fostering sustainable development. Despite the prevalence of animals, they are often only counted as economic units. Their relationships with people and their welfare are left invisible and unaccounted for. This research centres animals in Canadian international development interventions. Through a mixed methods approach, it documents the historical roles of animals in development, the contemporary participation of animals in a case study of the Canadian International Food Security Research Fund (CIFSRF); and looks to the future of animals in development in a necessarily multispecies frame. This research unites animal geographies and development studies to provide scholarly insights on global animal-human relationships, animal welfare, and global wellbeing to inform future animal-human practices in development.

Estimating the Non-Status Migrant Population in the Greater Toronto Area: A spatial approach

Daniel Huang, Evan Cleave & Harald Bauder, Toronto Metropolitan University

This poster explores the research question: what is the estimated population size, population characteristics, and spatial distribution of non-status immigrants within the Greater Toronto Area (GTA)? Non-status immigrants fall into a grey area in term of immigration status as they are individuals who have no authorization to reside or work in Canada. However, most non-status immigrants came to Canada legally through travel visas or as refugees. Existing estimates of non-status immigrants are both wide ranging (i.e., estimates of between 50,000 and 250,000 in the GTA) and are non-spatial. Using a residual method for estimating unaccounted for people in the 2021 Canadian census, this research creates census tract-level population estimates. Using measures of spatial autocorrelation (i.e., global and local Moran's I) and inferential statistics (i.e., geodemographic analysis), this research estimates both where non-status migrants live, and the types of neighbourhoods they live in. By identifying the spatial distribution of non-status immigrant, there is potential for practical improvements to the levels and effectiveness of support services made available to a marginalized population.

Enhancing Girls' Sports Participation in the Greater Toronto Area: A Focus on Parental Perspectives

Jayda Hylton-Pelaia & Caroline Barakat, Ontario Tech University

Physical activity is vital for children, yet fewer than 25% meet daily recommendations. Organized sports offer a pathway to fulfill recommendations, providing physical, psychological, and social benefits, yet sport attrition rates among girls remain high. In Canada, teenage girls have a dropout rate three times higher than boys. A recent study in the Greater Toronto Area (GTA) identified constraints to girls' sport participation, including family support. Research links benefits of sport participation to young athletes' interactions with parents, emphasizing the pivotal role parents play in shaping their children's sport experiences. Yet, there is a gap in understanding and addressing factors influencing parental decision-making regarding their daughters' sport participation. To address this, we conducted semi-structured interviews with parents of daughters aged 6 to 12 in the GTA. Thematic analysis revealed 10 main themes within the broader categories of: Sport Criteria, Daughter's Representation, and Parental Role and Experience. These themes included sport requirements, player involvement and challenge level, gender and safety stereotypes, daughter's enjoyment in sport participation, factors influencing her participation, and sports' impact on self-efficacy. Additionally, they encompass parental history in sports, parents' perceived importance of sport involvement, and their willingness to provide tangible and emotional support. These findings underscore the complexities of parental perspectives, which are being used in the next study phase to inform the development of an evidence-based toolkit. This toolkit will be utilized for intervention research aimed at assisting parents in making decisions regarding their daughters' sport participation to enhance girls' enjoyment and retention in sports.

Urban floods: Participatory GIS mapping of community resilience in Ghana

Abdul-Salam Ibrahim, University of Toronto

Cities across the globe are prioritizing resilience in the wake of increasing climate change-related disasters. About 44% of these disasters are floods and their manifestation in cities is more pronounced, threatening urban social, ecological, and economic systems. This study draws on community resilience and the participatory GIS to examine land use vulnerability to flooding and local coping mechanisms and propose strategies to achieve resilience. Using Ghana as a case study, the results show disparities in land use vulnerabilities categorized by the participants into highly, moderately, and rarely vulnerable. We found that anthropogenic and natural elements drive land use vulnerability to flooding. We argue that the natural elements in and of themselves may not generate flood events if the anthropogenic drivers are controlled in a manner that is consistent with land use planning regulations. We observed declining interest in communal resilience strategies in the study communities. Hence, household coping strategies dominate with urban inequalities putting the marginalized urban population in a more vulnerable position. We recommend recognition equity to allow for the targeting of resilient interventions that reflect and respect the social differentiation in the urban environment so that outcomes will not exacerbate or generate new urban socio-spatial inequalities. Urban planning consideration of the proposed interventions by the participants will reflect locally driven community resilience planning solutions to existing vulnerabilities defined by the actors experiencing the hazards and not imposed by external experts.

Listening for Places of Abolition: Podcast Narratives of Community Safety and Care

Chloe Ibrahim & Sheryl-Ann Simpson, Carleton University

Ruth Wilson Gilmore describes abolition as a place, and we ask what kind of place is it when narrated from the perspective of those most impacted by carceral systems. We respond by analyzing transcripts from 360 podcasts episodes (approximately two weeks of audio) from independent podcasts primarily produced by currently and formerly incarcerated and institutionalized people, their friends and family, and abolition organizers. We work with podcasts because they engage with emerging topics through voices that are seldom present in traditional broadcasts. As podcast scholars Mary Kidd and Stacey Copeland describe this includes the communities podcasters and their guests are from, and their register. We use machine-assisted categorization of episodes, and validate categories through thematic coding of exemplar episodes. We find that categories converge around characteristics of podcasters and guests. In other words there are distinct conversations and definitions of abolition emerging within jails and prisons as compared to advocacy, or

academic discussions. Inside perspectives are distinct, and provide insight into the space of abolition. Rather than waiting for release, inside narratives reveal the ways in which moments of abolition, of community care without the violence of policing, are being produced inside jails, prisons and institutions. These are predominantly in moments of shared space at work, crafting classes, school programs, and in moments of refusing violence, for example in averting fights set up by prison staff.

Assessing community bioenergy potential for northern and remote Indigenous communities

Didar Islam, Silas Asante & Bram Noble University of Saskatchewan

Many rural and remote Indigenous communities in northern Canada's boreal forest zone are not connected to the continental energy grid or are 'end-of-line' communities and suffer from energy insecurity due to unreliable energy supplies and high energy costs. Biomass, a significant renewable energy source, holds potential for addressing the energy insecurity of these northern communities. This study focuses on Southend, a Peter Ballantyne Cree Nation (PBCN) community in north-east Saskatchewan, assessing the feasibility of community renewable energy from forest residues. Spatial tools and energy conversion models have been used to estimate the energy generation potential of the harvestable biomass residues under various scenarios. Results show varying potential, with gasification offering the highest at 329,022 MWh/t and combustion the lowest at 110,470 MWh/t. Biomass availability within 20 km of the community and 5 km of roads is deemed sufficient to operate bioenergy facilities exceeding community needs. This analysis aids in optimizing forest residues for bioenergy production in the early stages of community energy planning. It is expected that this study's findings contribute to sustainable development goals and offer practical insights for similar remote boreal communities.

The Carceral Continuum and the Toronto Shelter System

Sid Jackson, independent researcher

With his articulation of the 'carceral continuum,' Foucault (1995) suggests a model of the carceral, which extends beyond the prison. Today the carceral continuum can be understood as including diverse institutions such as: social housing, shelters, detox/rahab, long-term care, hospitals, and in the colonial context, reserves, residential and day schools, and foster care. The carceral continuum can be understood as a state strategy to contain, control, and punish peoples who have been impoverished due to intersecting structural oppressions. This paper is based on a longterm activist and cultural engagement with unhoused folx and their experiences in the shelter system in Toronto. The lived experience critique that point out the links between shelter and prison are commonly made within the unhoused community. Shelters are run according to a one way power arrangement of staff over residents. Staff power is based on a set of rules and regimes which are the basis for the practice of service restriction - evicting a resident from the shelter. Activist interventions into to the shelter system and its impacts on the unhoused community reveal the shelter as a space of punitive warehousing rather than the spaces of care they are promoted to be in public and in governmental circles.

Learning from Indigenous Shuar ways of knowing in the Cordillera de Transkutukú: Cultivating relations with the more than human world through singing Shuar *ánents*.

Martina Jakubchik-Paloheimo & Shuar Kakaram de Buena Esperanza, Queen's University

Indigenous Shuar stories and songs or *ánents* are used for invocation in what is now known as the Ecuadorian Amazon. *Anents* are considered sacred songs that are passed on orally from generation to generation. They can be also learned through visions or dreams. These songs help communicate with plants to help open their healing properties, create an abundant harvest in Shuar gardens or can be sung to ensure a fruitful hunt in the jungle. This paper will speak to the impacts of colonialism has had on the use of these cultural practices,

speak to the need for a larger conversation on the importance of ceremony as science, and more specifically the practice of singing to communicate with the more than human world. I argue that the practice of ceremonial singing allows us to engage in a relational way of being and furthermore fosters communication to the spiritual and more than human world. I propose the question should we be singing more to enhance our own personal wellbeing along with the natural world? Using a spiritual geography of the landscape lens from the South I am hoping to speak to the importance of human beings need to listen, be in relation and communicate with nature through the example of the practice of *ánents* for greater planetary health.

If Seeds Could Fly: The Role of Species Provenance in Climate Adaptation Strategies

Pierrette Janes-Bourque, Joel Finnis & Carissa Brown, Memorial University of Newfoundland and Labrador

Climate projections for the island of Newfoundland indicate that the region can expect an increase in precipitation and warmer temperatures over the next 50 years. Adapting to these anticipated changes will require tree ranges to shift at a rate which far exceed natural dispersal patterns, and recent research in North America has shown that trees are unable to keep pace with climate change. We are investigating potential climate adaptation planting options for the island of Newfoundland using a common garden experiment. Common garden experiments (CGE), when trees from a range of latitudes are grown in a common plot and exposed to experimental treatments, can be used to determine the climatic effects on regionally diverse seedlings. Our project seeks to understand how localized climatic effects such as freeze/thaw cycles and coastal salt spray affect the survival, productivity, and health of tree species. We will conduct the experiment on four Atlantic Canadian tree species, including trembling aspen (*Populus tremuloides*), red spruce (*Picea rubens*), tamarack (*Larix laricina*), and yellow birch (*Betula alleghaniensis*). By completing the CGE on populations from New Brunswick, Nova Scotia, Newfoundland, and Ontario (where applicable), we will better understand which populations of these species are suitable for adaptive planting in both Newfoundland and across Canada. As Newfoundland faces rapid climatic changes, it is crucial that climate adaptation research is conducted to inform government strategies and protect native biodiversity.

Exploring the path of vitality revival of historical and cultural district under the perspective of micro-renewal--Taking Ningbo Fufusi Yongshou historical and cultural district as an Example

Jiang Jiru, Nanjing University

Residential historic and cultural district is an important part of the city, which is not only a material existence with certain spatial integrity and historical features, but also a carrier of residents' life, and is closely related to the economy, culture and society of the city. The article analyses the dilemmas faced by the conservation and renewal of historical and cultural district from the perspective of micro-renewal, and argues that the vague, fragmented and complex property rights issues are the root causes of the implementation difficulties in the conservation and renewal of historical district. Based on this, the article proposes revitalisation strategies for historic and cultural districts from the perspectives of micro-mechanism governance, micro-community creation and micro-spatial regeneration, with a view to solving the problems of lack of vitality, lack of funds and inefficiency in the current conservation and regeneration of historic districts.

Assessing the potential relationship between microplastics presence in Ringed seals feeding ecology in Nunatsiavut, Labrador, Canada.

Bridget Kakooza, Memorial University

Microplastic pollution has emerged as a pervasive environmental issue, significantly impacting marine ecosystems. Microplastics, which are very small pieces of plastic measuring less than 5mm, largely originate from wastewater and atmospheric deposition. Nunatsiavut, known for its remote and environment, is experiencing pressures from global microplastic pollution. This area, part of the Inuit Nunangat, provides a crucial habitat for Ringed seals, a keystone species in Arctic marine ecosystems. Ringed seals, which rely on

sea ice and both pelagic and benthic foraging habits, are particularly vulnerable to ingesting microplastics, either directly through their prey or indirectly through water and sediment ingestion. An assessment of their diet, based on the remains of hard parts, identified 25 prey species, with capelin being the dominant prey, having a frequency of occurrence (%FO) of 79%. The diet of Ringed seals was found to be heterogeneous, comprising four prey categories: fish, crustaceans, molluscs, and non-prey items. In this study, Ringed seals also fed on Arctic cod, sand lance, and unidentified fish. Results show that microplastics were present in the stomachs and intestines of Ringed seals. Of the 42 Ringed seals sampled in 2019, 13 had ingested plastics, with an average of 0.52 pieces of plastic per seal. The average number of plastics ingested was 0.6, and the average size of the plastics eaten was 0.0001mm³. The low ingestion and retention rate in these seals is attributed to their fast clearance rate, which can be as quick as five hours. Consequently, wild food remains safe to eat.

Exploring the lived experiences of young living with diabetes in underserved communities in Ghana Joseph Kangmennaang & Alhassan Siiba, Queen's University

Diabetes is a major cause of death and the daily demands of living with diabetes take an emotional toll on people living with diabetes (PLWDs). Sub-Saharan Africa (SSA) is undergoing an epidemiological transition driven by rapid, unprecedented demographic, sociocultural, and economic transitions which are driving increases in the risk and prevalence of diabetes and other non-communicable diseases (NCDs). Young people account for a disproportionate percentage of PLWD in SSA. Uncontrolled diabetes is associated with increased risk for severe health complications. In Ghana, Type 1 diabetes is growing at 8.3% per year compared with 4.4% for Type 2 Diabetes. Type 1 diabetes mellitus (T1DM) diverges from T2DM in that it is not preventable, children are often diagnosed late, or diagnoses missed entirely, and living with T1DM requires a different approach to care. T1DM is unique from other chronic illnesses as it becomes part of the individual lifestyle and daily routines and that of their families. Caregivers and children diagnosed often have new responsibilities placed on them. As part of a larger research program exploring diabetes risks and management in underserved communities, this paper explores the barriers and facilitators of managing diabetes among young people. We conducted photovoice interviews with young PLWD (n=24) in Kumasi and Wa, Ghana. The key themes that emerged include sociocultural barriers and norms, the food environment, and embodied experiences including pains and scars from insulin injection. The implications of the results for policy and practice, specifically to ensuring the wellbeing of PLWD, are discussed.

Comparative perspectives on the social aspects of mine closure and mine site transition in Canada and Australia

Arn Keeling, Memorial University of Newfoundland

Sarah Holcombe & Sandy Worden, University of Queensland, Australia

In response to the growing recognition of mine closure as a unique phase of the mining cycle, increasing scholarly, industry, and regulatory attention is being focused on the social and economic dimensions of mine site transitions. Recent best practice statements and guideline documents promote “integrated closure planning” as an approach to mine closure that includes both environmental and socioeconomic objectives. In spite of these commitments, in many jurisdictions the regulatory framework around closure planning neglects or overlooks the necessity for socioeconomic plans or lacks clear objectives for social outcomes. This gap inhibits the ability of industry and communities to adequately account for and mitigate the often devastating socioeconomic effects of mine closure, and integrate community objectives for mine site transitions. In this presentation, we compare approaches to mine closure regulations in three jurisdictions—Queensland and the Northern Territory in Australia, and Nunavik (Northern Québec) in Canada—to assess whether and how regional authorities address the social aspects of mine closure and mine site transitions, including economic and cultural impacts and post-mining land use. In particular, we focus on barriers and opportunities for local

and Indigenous community participation and highlight emerging practices of community engagement in mine closure and transition planning. This comparison highlights the factors that shape the approach in these jurisdictions, including governance structures, Indigenous rights, negotiated agreements, and the scale and scope of mineral development activities.

'It's not like it was': Changing perceptions of opportunity among international students in northern Ontario

Melissa Kelly, Toronto Metropolitan University (CERC Migration)

International students often come to Canada not only to study, but to fulfill their career and personal ambitions. Most come with the plan of working part-time during their studies and hope to eventually transition to permanent residency after securing a fulltime job in their field. In recent years, however, there has been an exponential growth in the number of international students attending specific colleges and universities, some of which are located in smaller communities that have limited affordable housing and a paucity of part-time job openings. This has made it difficult for many new international students to support themselves and some are experiencing significant hardship. In this paper, I draw on qualitative interviews carried out with international students in Thunder Bay and North Bay, two cities in northern Ontario that have received growing numbers of international students. I consider the extent to which the participants' pre-arrival expectations of life in Canada have been met, and explore whether the challenges they have faced have impacted their longer-term plans to settle in the country. The study finds that many of the study participants are struggling much more than they expected to, and share the belief that smaller cities like North Bay and Thunder Bay can no longer offer international students the same opportunities that they used to. Even so, the participants continue to have a great deal of hope. Despite the challenges they have faced, most are still determined to achieve their dreams in Canada and to stay for the longer-term.

Experiences of Transportation Poverty Among Youth Experiencing Homelessness in Toronto

Noah Kelly & Kevin Manaugh, McGill University

Rachel Wong, University of Toronto

For people experiencing homelessness, lack of adequate transportation can exacerbate social isolation, criminalization, and act as a barrier to access essential supports that aid in the process of rehousing. Among youth, the negative impacts of inadequate transportation can be particularly disruptive. Transportation access is a key systemic barrier to supportive opportunities that can aid in early intervention and help prevent recurring and chronic homelessness. Social connections are critical in fostering well-being and stability in the transition out of homelessness and into adulthood for youth. Without proper mobility, youth can remain physically and socially isolated from integral social connections and supportive opportunities necessary to become rehoused. This study looks to explore the impacts of transportation poverty on quality of life, social exclusion, social connection, and access to essential supports among 36 youth experiencing homelessness and living in shelters in Toronto. Methods: We utilize a mixed-methods approach, using group interviews, surveys, and transportation diaries to explore our research question. Findings: Transportation poverty was experienced by all participants. The severity of participant's transportation poverty was dictated by participant transience and financial security, transportation supports offered at each shelter, ease of fare evasion, and experiences of physical and psychic safety on transit. Lack of adequate transportation threatened participants' ability to access their essential daily needs. Inadequate transportation was seen to contribute to social isolation and threatened participant's job security, food security, access to essential services, education, and medical services. Government transportation supports were seen as inaccessible or ineffective in addressing participants' transportation needs.

Using a landscape process as an alternative means of measuring landscape fragmentation

Barbara Kerr & Tarmo K. Rimmel, York University

Given the potential impact of landscape fragmentation on a wide range of ecological processes, it is important to quantify fragmentation. The traditional pattern-based approach to measuring fragmentation through landscape metrics relies on measuring the relationships resulting from the composition and configuration of landscape elements. An alternative approach is to develop process-based metrics that are calculated from the process of traversing a landscape to assess the degree of fragmentation. I used simulated landscapes and multiple instances of least-cost path analysis to examine linkages between the cost of traversing a landscape and states of fragmentation and compared the results with pattern-based measures. Unlike the pattern-based measures, two of the five process-based metrics were able to distinguish among the full range of class proportions and provide a measure of fragmentation. My study provides a methodological foundation for further studies as this process-based approach is not associated with a specific species or ecological process, and thus can be easily adapted to numerous settings.

Comparing wildland fire disturbance boundary mapping methods in Ontario's boreal forest

Nadia Keshmiri & Tarmo K. Remmel, York University

Ontario's boreal forest, a vast source of natural resources, a potential carbon sink, and a biodiversity hotspot, is cyclically at risk from wildland fire disturbances. The projected amplification of this risk by climate change stands to compromise the ecological functions and resources that this vast managed region provides. Intensive management of these landscapes relies on regular mapping, particularly to quantify and characterize large disturbances to forests. Recently, BorealDB was released that provides consistently-derived annual layers of forest disturbance mapping from 1972 through to the present. This mapping is provided as vector points identifying the presence of a disturbance spaced on an imaginary 120 m grid. Attributes attached to these points further characterize which other existing disturbance mapping products identify the location as having been disturbed; an ensemble confidence value is provided that summarizes the percentage of data products that agree with respect to the mapped characterization. These points can be reselected in any number of ways to produce disturbance surfaces based on the specified reselection criteria, but which combination of reselection criteria are most appropriate? We test several combinations of reselection criteria against boundaries produced by assessing thresholds of local gradients of the Normalized Difference Vegetation Index (NDVI) and the Normalized Burn Ratio (NBR) to see which combinations of vegetation index threshold and BorealDB reselection criteria express the highest agreement. We test all combinations of two reselections of BorealDB (where the ensemble confidence is 100% and where it is $\geq 67\%$) and three gradient thresholds (gradual, intermediate, abrupt), each for NDVI and NBR vegetation index surfaces. We further test the relationships with each product considered as the de facto "correct" layer to understand the quantity and arrangement of agreements and disagreements among the products.

The loss and daylighting of urban streams: A tale of three cities

Luna Khirfan, University of Waterloo

I compare the historic and contemporary layers of socio-spatial connections between urban residents and urban streams in three cities: Amman (Jordan), Seoul (South Korea), and Zürich (Switzerland). Specifically, I investigate how, throughout history, water infrastructures led either to innovative transformation or to detrimental interventions that impacted the streams' ecosystem benefits. My historic analysis investigates how innovative water infrastructures influenced these cities' urban spatial arrangements to bestow a slew of ecosystem services ranging from the cosmic esoteric (cultural) to the utilitarian (regulatory, provisioning, and supporting). As the twentieth century's development-led narrative took hold, however, the streams' loss through culverting fissured their socio-spatial connections and ensued in disruptions to their ecosystem services. My analysis investigates the impacts of Amman's status quo planning, notwithstanding its dire water insecurity exacerbated by the climate crisis, and contrasts it to how both Seoul and Zürich recalibrated their relationships with their urban streams to capitalize on their ecosystem services – albeit differently. Seoul restored the Cheonggyecheon in 2004 by dismantling a major expressway while Zürich's bachkonzept policy,

initiated in 1988, led to incrementally daylighting over 24 kilometres throughout Zürich. I frame this comparison along the structure-function urban transformation. Structural transformations are innovative alterations to policies and to spatial structures (i.e., urban morphology), while functional transformations entail innovations in the synergy between urban and ecological and/or hydrological functions through infrastructure as well as innovation in economic and human behavioural shifts. My investigations draw on archaeological research; historic maps and photos; planning documents; spatial data; and in situ observations.

Chronically Excluded? Public Toilet Access for Youth with Chronic Gastrointestinal Illness

Stefanie Kiriazis, York University

My research investigates the differential access to public toilets experienced by chronically ill youth living with gastrointestinal illnesses (e.g., Irritable Bowel Syndrome, Crohn's, and Ulcerative Colitis) and the impact it has on their everyday mobilities through suburban and urban landscapes. My research asks the following question: how are the everyday geographies and mobilities of youth altered by chronic gastrointestinal illnesses that require more frequent access to public toilets? I answer this question through a feminist geographical lens that prioritizes youth embodied experiences, their insurgent agency, and right-to-the-city citizenship claims. Leveraging my shared personal experiences of chronic illness, my research uses time-space diaries and semi-structured interviews to prompt discussion about mobility patterns within everyday geographies, the elements of public toilet infrastructure that are beneficial and those that are lacking, and the subsequent impacts on physical and mental wellbeing.

Carceralization of public space and grassroots activism: Comparative geographies of discretionary policing and resistance

Melora Koepke, UPEC

In most contexts where the presence of unhoused people who depend on public space is deemed problematic, such as in encampments installed in public parks and on sidewalks, authorities exert their discretionary powers to police and otherwise control the bodies and possessions. Activities like ticketing blitzes, street sweeps and temporary evacuation orders, as well as countless other forms of carceral policies and enforcement, are enacted against specific groups in specific locations at specific times; in many instances preventing people from activities that constitute their survival. These exertions of discretionary power are hard to trace and even harder to expose, and therefore their actual objectives that are rooted in the multifarious violence of colonial and settler-colonial spatial logics often remain obscure (though never to the people who experience them firsthand). However, advocates and community activists are constantly developing various tactics and strategies for exposing, highlighting and resisting these forms of discretionary power that can actually be proven to discriminate against the poor. In this paper, I draw from recent fieldwork within encampments and resistance movements by, for and with unhoused people in two cities (Paris and Vancouver) to bring examples of discretionary powers of police and others are enshrined by discriminatory policies and highlight how affected people within marginalized communities resist, expose and oppose these forms of power and control that contribute to the carceralization of urban public space through activist organizing and diverse grassroots legal and other everyday abolitionist futures that are always already in progress.

Housing First as a Global Fast Policy, Economic Tool, and Disciplinary Tactic: A Review of the Critical Literature

Daniel Kudla & Andrew Clarke, Memorial University

While there are an abundance of studies evaluating the effectiveness of Housing First programs, there is a recent surge in critical social science research that situates Housing First within broader debates about contemporary neoliberal homelessness governance. This paper provides clarity to this evolving and somewhat fragmented work by highlighting three main conceptualisations of critical Housing First research. First, it is interpreted as a technocratic global fast policy that, while appealing to policymakers and government officials,

ultimately fails to address the structural causes of housing insecurity and homelessness. Second, it is viewed as an economic tool that prioritises housing for a narrow cohort of ‘chronic homeless’ that incur a high cost to scarce public resources. Third, it is seen as a disciplinary tactic that ignores people’s alternative expressions of home and compels them to abide by the norms of ‘independent living’ and the private rental market. We conclude with an assessment of this critical literature. Whilst acknowledging its key insights, we contend that its treatment of Housing First as yet another form of neoliberal homelessness governance and overreliance on Anglophone-country case studies risks reifying HF’s worst aspects and failing to adequately recognise its transformative potential.

Examining Food Insecurity Among Black Families in Toronto: A Mixed-Methods Approach

Emmanuel Kyeremeh, Julian Hasford, Siki Soberetonari, Hansel Igbavboa & Ashante Daley, Toronto Metropolitan University

Jonathan Amoyaw, Dalhousie University

Maame Obeng & Paul Bailey, Black Health Alliance

Zakiya Tafaari, African Foodbasket

Food insecurity is a pressing issue in Canada, with evidence indicating disproportionate impacts on Black families, particularly children. Research finds that 38% of Black Canadians are food insecure. This disparity correlates with adverse health outcomes and diminished overall well-being. Despite these challenges, research and interventions targeting the unique food needs of Black households remain limited. Similarly, very little research has examined how Black food insecurity is manifested in the lived experiences of Black people or how it is shaped by the intersection of anti-Black racism with other structures of oppression. Moreover, little research has examined the needs and experiences of Black users of food relief services in Canada. This paper will share preliminary findings from a pilot study of Black food insecurity in Toronto, Canada. This study is the first phase of a research and demonstration project that seeks to develop an evidence-informed, Black-focused food prescribing and nutrition education intervention. The major objective of this phase is to (1) identify factors driving food insecurity among targeted Black families and (2) to examine the intersection of race and other identity markers on Black Canadian food security. Findings are based on data collected from surveys (n = 250) and focus groups (n = 70) with Black Canadians who experience food insecurity. We will draw upon theoretical perspectives from Black/critical food and socio-ecological models to explore the complex and mutually supportive ways in which anti-Black racism intersects with ableism, patriarchy, heterosexism, ageism, and xenophobia to structure food insecurity.

Everyday Spaces of the University

Nicole Latulippe, University of Toronto

Speaking with Nick Estes on the Red Nation Podcast (2024), Dr. Mohamed Abdou states, “Academia is a site of resistance, not liberation”. Considering the structural alignment between the ‘Palestine exception’ to academic freedom and the “luxury” of forgetting (Jewell and King 2023), in this moment I reflect on the active resistance of students, staff, and faculty to colonial occlusion and settler-colonial continuity in the everyday spaces of the university (Daswani 2024). I reflect on the sites where hope can grow. While EDI strives to ‘incorporate’ Indigenous, Black, and ‘other’ marginalized knowledges, and universities increasingly adopt the language of decolonization, justice, and partnership with diverse communities, it is through both protest labour and everyday labour, time, teaching, learning, and relationship that transformative potential is nurtured and realized. I speak from my current role as a pre-tenured faculty member at the University of Toronto Scarborough campus to pose questions and explore possibilities through dialogue. For instance, how might we leverage and activate institutional commitments to “treaty citizenship”, “relational accountability”, and to “build[ing] awareness about the crucial distinctions between Indigeneity, anti-colonialism, anti-racism and anti-Black racism, and ‘equity, diversity, and inclusion’ and reflect these distinctions in campus structures, resources, and education” (UTSC 2022)? Recognizing the limits of university space, how do we support the transformation of “[v]irtually all aspects of Canadian society” (Sinclair 2015, vi), cultivate community, and realize the materiality of decolonization “by privileging the voice and vision of those explicitly displaced and

dispossessed” (Giidaakunadaad in UTSC 2022, 4)? To illustrate how I am navigating the everyday spaces of the university while taking seriously right relationship with the land, waters, and peoples of place, I will share preliminary insights from two projects, a treaty listening project and Indigenous placekeeping in the Highland Creek.

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“I get on the wrong bus more times than I can count”: A Critical Exploration into the Micro-Politics of Neurodivergent Mobilities

Samantha Leger & Jennifer Dean, University of Waterloo

Engaging with mobilities of disabilities remains a critical facet in unsettling exclusionary mobility practices. Although there are efforts to understand and accommodate physical (dis)abilities, there is little consideration of invisible (dis)abilities and how they shape the micro-politics of everyday movement. This includes neurodiversity: a broad term that encapsulates a range of different diagnoses, including Autism Spectrum Disorder (ASD) and Attention Deficit and Hyperactivity Disorder (ADHD). To be neurodivergent is to have a differed way of knowing, moving, and choosing often ‘othered’ by the neurotypical expectation. As of now, critical mobility studies have yet to meaningfully engage with the different embodiments of mobility produced by being neurodivergent, despite calls from critical geographers for more research on mobility possibilities and the neurodivers(city) (see Kenna, 2022; Vanolo, 2023). Through an analysis of the micropolitics of everyday mobility, this paper critically explores the neurotypical expectation as a means by which mobility exclusions operate and are experienced, recounting qualitative analysis of 30 grounded-theory interviews of neurodivergent adults who actively travel around their communities. The findings focus on the everyday mobilities of neurodivergent populations and the impacts on mode and route choice, the acts of adaption and resistance produced by the micro-politics of neurodivergent movement, and imaginaries wherein neurotypical common senses are unrooted from transportation policies and planning. Expanding even further, this work theoretically challenges neurotypicality embedded into the politics of mobility, leaning on feminist and crip-theories of care to conceptualize a neuro-inclusive- and just- mobilities future.

Carceral Control of Bodies on the Streets and in the Institution

Tasha Leone, Capilano University

Adding to the examination of the carceral continuum, this presentation brings the lived experience expertise and knowledge to explore carceral control of bodies on the streets and in carceral institutions. Bodies are controlled by white patriarchal law and morality which are enforced via policing, neighbourhood groups, social work, non-profit organisations. This work is only allowed to exist in certain ‘red light’ zones. Those involved in sex work experience a ‘rescue rehabilitation ethos that is forced on them - that strips them of their economic agency and autonomy. This study examines the way sex work intersects with prisons, public space, patriarchal law, medical establishments, and other institutions.

A Place to Pee: Municipal Parks Policy, Gender and Public Toilets in Canada

Shawna Lewkowitz & Jason Gilliland, Western University
Stephanie Coen, University of Nottingham and Western University

Everybody needs to use the toilet, sometimes urgently. According to the United Nations, access to sanitation within public spaces is a human right and as a result the Human Rights Council of the United Nations (2019) developed a framework to assess the provision of public toilets in public spaces. The framework criteria include: i) availability; ii) accessibility; iii) affordability; iv) quality and safety; and v) acceptability, privacy and dignity. While everyone might occasionally need access to a toilet when out in public spaces, that need for, and experience of, public toilets is influenced by gender. Despite the UN's emphasis on the right to sanitation in public spaces, Canada still lacks good quality public toilets in most places, including public parks and there is a lack of research on how Canadian cities in their parks and master plans consider the needs of women, trans and people of all marginalized genders as it relates to public washrooms. In this research we have undertaken a critical content analysis of parks and recreation master plans of municipalities across Canada to better understand how policymakers and planners consider these needs. We do so by first giving a broad overview of how parks and recreation plans contend with gender and public washrooms across Canada as it relates to the UN framework, we then examine three municipalities in more detail, and look at their policies through a feminist engagement with the right to the city and the impact on the health and wellbeing of people of marginalized genders.

Shifting the Scales: How Indigenous Jurisdiction Reshapes Michigan's Fisheries Management in the Upper Great Lakes

Nicole Van Lier, Dalhousie University

Fisheries have long been a resource sector shaping Indigenous-state relations in North America. An ongoing source of conflict has involved the application of state conservation laws in ways that limit Indigenous fishing rights and practices. In the upper Great Lakes, conservation-related fishing disputes proliferated within and beyond the courts through much of the 20th century. In 1980, however, a new precedent was set when the Michigan Supreme Court upheld Indigenous fishing rights above the state's conservation authority. Ojibwe and Odawa communities in northern Michigan have since built on this legal history to expand their economic, regulatory, and environmental control over a shared fisheries resource. Today, these communities have developed a monopoly on commercial fishing such that state-regulated commercial fishing is now considered a dying industry. In this context of expanding Indigenous jurisdiction, I examine how Michigan's fisheries management has shifted in response. This paper thus considers an understudied aspect of settler colonial resource management by asking how Indigenous economies and jurisdictions reconfigure the resource management practices of the settler colonial state? I will share early findings on the evolution of overlapping fisheries in this region, as well as some of the practical and paradigmatic shifts seen in Michigan's fisheries management regime over the last fifty years.

Visualizing 45 Years of Climate Change on Canada's East Coast: Seeing Is Believing

David Lieske, Mount Allison University

Hardly a day goes by when we aren't inundated with information about climate change, but what does it all mean? As part of a research project involving the assessment of coastal island ecosystems, myself and colleagues turned to 45 years of climate records to better understand the temporal and spatial pattern of climate change in Canada's East Coast marine environment. With a focus on sea-surface temperature (SST, degC), 2m air temperature (2mTEMP, degC), precipitation rate (PRECIPRATE, mm m⁻² s⁻¹), and windspeed (10mWINDSPD, m s⁻¹), we asked two questions: (1) what has been the trajectory and rate of change? And (2) where are the spatial "hotspots" and "coldspots" of change? Innovations in remote sensing and data integration render it possible to examine many atmospheric, land, and oceanic variables over moderate spatial resolutions and significant time spans. One such project is the Copernicus Climate Change Service's ECMWF Reanalysis v5 (ERA5) atmospheric reanalysis data product, and monthly summaries were examined for the period in question. SST stood out as a variable undergoing especially rapid change, and which also exhibited prominent geographic variation. This presentation will delve into these patterns and review some of the perceptible ecological consequences of these changes.

Reading Mine Closure Through Tłı̨ch̨ Self-Determination

Tee Lim & John B. Zoededats'eetsaa: Tłı̨ch̨ Research and Training Institute / UBC
Rebecca Hall, Queen's University

In Northern Canada, the Tłı̨ch̨ have experienced a long history of settler-imposed mining. The history of the mines is written into Tłı̨ch̨ place names that hold the knowledge of ecological harm and repair, the community re-purposing of mining equipment and refuse. This history and the broader context of past and present colonial dispossession of Indigenous peoples has shaped the contemporary engagement of Tłı̨ch̨ with diamond mines, the largest extractive operations in the region; the Northwest Territories of Canada. The northern diamond industry is contracting, and all territorial diamond mines will likely cease production by 2035. In this paper we share some of the Tłı̨ch̨ experience with the diamond mines, and as the diamond industry contracts, community experiences with and concerns surrounding forthcoming closure. We contextualize the community-industry agreements shaping the diamond mine closure in the long history of settler-Indigenous treaty making. While tracing the substantive gains the Tłı̨ch̨ have made in their influence over mining operations on their territory, the paper points to the problems that persist, as Tłı̨ch̨ continue to struggle for self-determination over their lands, and extractive operations on these lands. Ultimately, the paper asks, what is Tłı̨ch̨ closure? In response, four pillars of Tłı̨ch̨ self-determination – land, language, culture and way of life – are identified as necessary grounding for a just and Indigenous-led approach to mine closure and subsequent economic development.

Creating a Caring Centretown: An Intersectional Feminist Perspective

Mikayla Lochbihler, Carleton University

Using an intersectional feminist perspective, this thesis analyzes the needs of the Centretown neighbourhood in Ottawa, Ontario using the Caring City framework. The Caring City framework highlights the importance of carework, as often unpaid labour performed by women. The Caring City framework advocates for a partnership between municipalities and community members to provide state-funded social services relevant to the needs of residents. This thesis explores how strategies such as inclusionary zoning can assist in creating affordable housing near major public transit nodes. An analysis of case studies from Bogotá, Columbia and Winnipeg, Manitoba is also used to identify alternative forms of social policy and urban planning strategies. This thesis combines ideas from existing policy, newly implemented social services, and autoethnographic perspective, in consultation with socio-economic data for the Centretown neighbourhood, to brainstorm ways in which Ottawa can become a more caring city.

Gouvernance territoriale des quartiers périurbains informels de Bogotá: le potentiel des jardins communautaires comme pôle de gouvernance participative

Andres Lozada Guzmán, Université Laval

Les quartiers périurbains des villes d'Amérique latine, comme ceux de Bogota, sont confrontés à des défis importants en raison de leur caractère informel. Cette situation entraîne des problèmes complexes en matière d'urbanisme et de gestion des ressources environnementales, qui ont un impact non seulement sur les habitants de ces quartiers, mais aussi sur leurs voisins immédiats. Parmi les problèmes les plus importants figurent l'insécurité juridique et économique, les risques naturels tels que les glissements de terrain et les inondations, ainsi que l'insécurité alimentaire, qui s'est intensifiée pendant la pandémie de COVID-19 en Colombie.

À Bogota, les quartiers informels situés dans les Cerros Orientales illustrent ces défis. Leurs habitants se sont organisés pour trouver eux-mêmes des solutions aux problèmes de la vie informelle et pour revendiquer leur droit à rester dans ces zones. Au cours de la dernière décennie, les communautés du territoire Alto Fucha à San Cristóbal et La Mariposa à Usaquén ont mené des initiatives d'agriculture périurbaine. Elles ont créé des

jardins sur des terres à haut risque, dans des espaces publics et privés, afin d'encourager la participation des citoyens à ces activités.

Malgré une gestion gouvernementale insuffisante et des défis juridiques, l'agriculture urbaine dans ces territoires représente une opportunité d'améliorer la gouvernance, le développement territorial, la souveraineté alimentaire, la conservation des connaissances traditionnelles et la durabilité environnementale. Cette pratique facilite également l'intégration des citoyens dans la vie publique et la reconfiguration de l'espace urbain, contribuant ainsi à la lutte contre l'insécurité alimentaire.

Cette étude, qui utilise des méthodes qualitatives et exploratoires, vise à répondre à des questions clés sur des phénomènes urbains spécifiques. La collecte de données a été réalisée par le biais d'entretiens et d'observations directes dans les communautés en question, complétés par des interactions avec des représentants du gouvernement. Nos résultats révèlent que les jardins urbains dans les quartiers informels périurbains non seulement renforcent la gouvernance territoriale grâce à la participation active des citoyens, mais contribuent également de manière significative à la construction sociale de l'espace dans ces territoires.

My way or the highway: On infrastructure and colonial legacy in 1960s Beirut, Lebanon.

Diala Lteif, University of Cambridge

Karantina —also known as Al Khodr or Maslakh part of the district of Medawar—is the neighborhood situated in north-eastern Beirut, Lebanon, bordered by the Charles Helou highway to the south, the Beirut River to the east, and the Beirut port from the west and north. Enclosed between local geography and infrastructure, the neighborhood has effectively become an island on the edges of the city. However, Karantina has not always been severed from its urban milieu. Until the mid-1960s, it enjoyed access to the beach and the river, and was within walking distance from adjacent neighborhoods like Mar Mikhael, Hadjin, and Geitawi. This paper focuses specifically on the Charles Helou highway. Part of a larger infrastructural project, imagined during the French mandate era (1923-1946) but only executed after the Lebanese independence, this segment of the highway reified the marginalization of Karantina within Beirut. In this paper, I draw connections between the Lebanese state's approach to the production of space and that of the French mandate era, where urban infrastructure becomes the immutable vessel for a French colonial legacy. The highway created an unequal relationship between Karantina and the city, peripheralizing it as one of its essential poles of uneven development. I argue that the Charles Helou highway was part of a larger urban policy to rid the city of unwanted populations in the name of modernization, in its essence, a project of marginalization which generated a vital yet exploited class of laborers. Drawing on fieldwork conducted between 2018 and 2019, this paper explores the long-term effects of state-led development on Karantina and its inhabitants.

Negotiating Urban Memories: A Look into Mid-Sized Cities

Flandrine Lussion, INRS-UCS

For several decades now, memory has been studied in its spatial, and particularly urban, dimension. Studies on the subject have highlighted the fact that memory is far from being a consensual subject. On the contrary, the dynamics of memory and the processes of remembering are bringing together a variety of urban players, memory entrepreneurs, residents, and elected officials, but also a wide variety of memories that may come into tensions, or even conflicts. Studies on urban memory have analyzed the extent to which memory is now mobilized to enhance the attractiveness of cities, particularly in small and medium-sized cities, and how this process can come into tension with other representations and forms of appropriation of space. Between preservation, recognition, invisibilisation and even erasure, the question of memory is constantly being reconstructed and negotiated. More broadly, this process makes it possible to study and highlight different conceptions of urban development and urban planning, as well as different relationships and forms of place attachments. Based on the case study of Mirabel (Qc, Canada), the aim will be to show how the memories of

the airport and the expropriations of the 1970s form part of current representations of the territory and how they are negotiated between those who carry these memories, elected officials, and other residents. This question will be answered based on interviews gathered as part of a thesis.

Spatial dimensions of shared decision making: A qualitative study of parents' decision support needs beyond the consultation

Erin Luther & Paul Hong, IWK Health
Christine Cassidy, Dalhousie University

Shared decision-making (SDM) is an approach to care in which health care providers, patients and family members make health decisions collaboratively, by considering the medical evidence in tandem with patients' preferences and values. SDM research has traditionally focused on the conversation between patient and provider as the locus of decision-making, however in recent years a growing wave of research has challenged this emphasis on a discrete decisional event, calling instead for new SDM models that recognize decision-making as a process distributed over time and space and shaped by the social and physical contexts of decision makers. In alignment with this call, the current paper reports on a qualitative descriptive study conducted with parents who had consulted with an ear nose and throat surgeon about the possibility of surgery for their child. Semi-structured interviews were analyzed for themes related to decision making activities and desired decisional supports outside the consultation. Parents characterized their decision making as an extended process made up of interconnected decisions rather than a single decision about surgery, and valued a more extensive infrastructure for ongoing communication, learning and emotional support beyond the consultation. Using this research as a lens for exploring the spatial dimensions of a shared decision, we characterize a disciplinary 'edge' between geographic scholarship and new theoretical work in SDM research, along which a fertile set of questions for future research in health geography can emerge.

Material Communities: Urban Reuse Centers in a Diverse Circular Economy

Nicholas Lynch, Memorial University
Christopher Phelan, Memorial University

This paper examines the emergence of "urban reuse centers," non-profit entities that play a dual role in mobilizing reclaimed construction materials within local markets while advocating for alternative and circular Construction, Renovation, and Demolition (CR&D) practices and programs. Over the past decade, urban reuse centers have taken root in key cities across North America and have responded to various critical challenges, including shifts in local policies concerning demolition and landfill regulations and a growing demand for alternatives to waste-generating CR&D methods. While these centers provide alternatives such as deconstruction services and centralized reclamation markets, they have also evolved into hubs for broader social and environmental initiatives, particularly within the context of the Circular Economy (CE). This paper addresses the notable absence of academic scrutiny on urban reuse centers and underscores their significance as spaces where circularity and the built environment intersect. Drawing inspiration from recent social science scholarship advocating for in-depth exploration of alternative practices and "generative spaces" within the CE, this study critically explores reuse centers as integral, yet still unsettled, components of an evolving "diverse circular economy". Through expert interviews, we show how reuse centres not only challenge conventional capital-centric CR&D practices and create opportunities for novel engagements with everyday circularity but also contend with deep seated frictions in pushing the boundaries of reuse in local communities.

External Influences on Vegetation Index Response

Philip Lynch & Tarmo K. Rimmel, York University

Spectral vegetation indices derived from remote sensing images are useful for many applications but their response will be influenced by varying external environmental factors. For instance, the presence of shadows commonly associated with dense forests and hilly terrain will negatively impact vegetation indices. Visible soil backgrounds with varied composition and color are known to be factors that influence vegetation index response, largely dependent on moisture content. We characterize the spatial and temporal variability of four common vegetation indices (NDVI, NBR, VINIR, VIIR) to assess their sensitivities to site influences beyond those of vegetation state alone. The managed boreal forest in Ontario is our study area and is frequently disturbed by forest harvesting and wildland fires that require frequent monitoring; understanding environmental impacts on the vegetation indices computed for monitoring allows them to be better interpreted. Specifically, we segment the study area into hierarchically-nested and uniquely defined measurement zones based on combinations of ecoregion, canopy conductance, soil type, topography, and wind speed and then compare, using ANOVA, the computed characteristics of the vegetation indices (from zonal statistics) among combinations of the zones. We further incorporate a time series of vegetation indices to assess the stability of measurements through time. Implementation is achieved by computing annual growing season multispectral best-available pixel (BAP) and thermal average value composites by Google Earth Engine (GEE) for the period 1972 to the present from the Landsat data archive. Projected outcomes and significance include determination of what external influences augment index response in addition to a view of climate change impacts

Open (Geographic) Data for Planning the Urban Environment

Jacob Macdonald, University of Sheffield

The datafication of our urban environments have led to unprecedented opportunities, not only in the fields of GIS and urban analytics, but also for the practitioners and implementers in city administration. The introduction of these new frontier data resources (and the technologies to work with them effectively) has the potential to shape urban development and progress, but also comes with a wide range of challenges and limits – not least surrounding the legal frameworks, data quality, data security, sensitivity and the ethics involving analytics and policy making with limited resolution open data. This work explores whether and how advanced geospatial (urban) data sharing and availability has the possibility to spurn growth and broadly make the lives of those living in the area better. Drawing on contexts from around the world and different urban settings, there is much we can learn about how planners and urban scholars are using (or being challenged by) the overload of geospatial data at their disposal. From smart cities, the internet of things, administrative data and beyond, cities are making and using data in diverse ways. Understanding the potential benefits, drawbacks and costs associated with adopting open data and open data strategies in urban governance (e.g. through the availability of urban open data platforms), will go a long way towards developing urban data literacy and local improvements if they are utilised to their best potential – while acknowledging the restraints when it comes to our use, analysis or interpretation of the data.

Private Rail, Public Angst: The Toronto Street Railway Company and Modern Immobility, ca. 1900

Phillip Gordon Mackintosh, Brock University

The relative ease of industrialized mobilities in our present day, private and public, tends to occlude the knottiness—and ironies—of mobilities in previous centuries. A little scrutiny of mobilities in turn-of-the-twentieth-century Toronto reveals a curiosity: the city's implementation of industrialized and privatized mass public transit looks more like the birthing of immobility. Aside from basic infrastructure incapacity, arising from inadequate and perishable construction materials, a primary source of immobility and (thus) commuter anxiety was the private ownership of Toronto's streetcar system by, first, the Toronto Street Railway Company (1861-1891) and then the Toronto Railway Company (TRC), between 1861 and 1921. Their influence on daily public immobility and its corollaries, inconvenience and angst, loomed large in historical Toronto. Here we find a city in thrall to a private business contracted to provide a consequential public service: streetcar transit in a city of over 200,000 people, on 90,000 miles of track serving 44 million

passengers annually, by 1902. In this, the TRC mobility-failures were quite deliberate. Its service-delimiting business model of both oversubscribing ridership and restricting the number of streetcars in its schedule was proscribed by all Torontonians, from the streetcar riders and the press to the City Engineer and City Council. The consequence: a stressed, frustrated, and immobilized Toronto.

International labour migration in Whitehorse, Yukon: a critical northern geography approach

Morgan Manuel & Yolande Pottie-Sherman, Memorial University

Julia Christensen, Queen's University

In recent years, Canada's federal, provincial, and territorial governments have increasingly promoted international migration to the Canadian North. As a result, newcomer populations are growing in northern cities, from Whitehorse to Iqaluit to Happy Valley-Goose Bay. Their experiences navigating these landscapes are, however, poorly understood. In this presentation, we apply a critical northern geography lens to investigate the shifting patterns of international migration in Whitehorse, Yukon, and the mobility experiences of migrants who reside there. We draw our findings primarily from 30 qualitative interviews conducted by the lead author with immigrants, service providers, and government officials in Whitehorse. This research illustrates the growing influence of private industry on the Yukon, an influence linked directly to the erosion of labour rights and the exploitation of migrant labour, as many workers in the territory are subject to a different set of rules and regulations that limit their agency and mobility. At the same time, the case of Whitehorse also illustrates the diverse 'flows and frictions' engendered by the rise of "two-step" immigration in Canada, as the city has increasingly become a gateway to permanency for secondary migrants from other parts of the country.

What stories can trees tell us about the atmosphere using tree-ring radiocarbon signatures in southern Ontario?

Danielle Martin & Michael Pisaric, Brock University

Felix Vogel, Environment and Climate Change Canada

Alexi Shkarupin: Canadian Nuclear Laboratories

Jeffrey Lam: Canadian Nuclear Safety Commission

Anthropogenic activities influence the atmospheric carbon inventory. Air samplers can monitor human activities but are limited to a few locations due to their significant cost. Dendrochronology involves using annually dated tree rings as a proxy. Like radiocarbon (^{14}C) dating, ^{14}C content analysis can be performed on tree rings to measure approximate atmospheric content of ^{14}C and estimate anthropogenic influence. This study focuses on sampling tree-ring ^{14}C signatures in southern Ontario. Tree-ring samples were collected near Bruce Nuclear Generating Station (BNGS) and within the City of Toronto to develop an atmospheric inventory of ^{14}C . Ontario has three nuclear facilities with Canadian Deuterium Uranium (CANDU) reactors, which can emit ^{14}C during regular operations and maintenance periods. The BNGS is one of the world's largest nuclear facilities. We measured tree-ring ^{14}C in proximity to BNGS, comparing peaks in tree-ring ^{14}C levels to ^{14}C emissions and BNGS maintenance records. Radiocarbon analyses indicate tree-ring ^{14}C samples collected near BNGS are ^{14}C -enriched compared to atmospheric background ^{14}C levels. Enrichment increases with proximity to BNGS. In the City of Toronto, fossil fuel contributions (^{12}C , ^{13}C) from industrial, transportation, and urban activity are abundant. Tree-ring samples collected in Toronto are ^{14}C -depleted compared to atmospheric background ^{14}C levels. Periods of ^{14}C -enrichment possibly indicate contribution from Pickering Nuclear Generating Station. To confirm tree-ring derived ^{14}C accuracy, samples from a tree in the City of Toronto were compared to air sampler ^{14}C data (Spearman's rank correlation; $\rho = 0.9273$). Overall, tree-ring ^{14}C signatures can help monitor atmospheric carbon inventories and anthropogenic contributions.

Investigating the spatial distribution of urban forests and urban heat in mid- and large-sized cities in Ontario, Canada from an environmental justice perspective

Mahyar Masoudi & Masoud Mahdianpari, Memorial University
Michael Drescher, University of Waterloo

Urban forests are increasingly being incorporated into planning and design of cities worldwide, because of their numerous benefits (i.e., ecosystem services), which are vital for human well-being, economic prosperity, and environmental sustainability. However, evidence from around the world oftentimes suggests that access to urban forests is not equitably afforded to all population groups, raising an environmental justice issue. However, while most prior studies have focused on large and mega-cities, less evidence is available for small- and mid-sized cities. To address this gap, we conducted a study on the cooling effect of urban forests as an important ecosystem service and investigated the relationships between spatial distribution of urban forests, land surface temperature and key socioeconomic and sociodemographic variables across twelve mostly mid-sized cities in Southern Ontario, Canada. We used satellite imagery to map urban forests and land surface temperature, and obtained socioeconomic and sociodemographic data from the national Canadian population census. We then used aspatial methods, such as Gini coefficient, and spatial methods, such as geographically-weighted regression to assess relationships and patterns of segregation. While we generally detected unequitable distribution of urban forests and high temperatures such that low-income and ethnic-minority groups had less access to urban forests and resided in hotter surroundings. However, we also observed noticeable variation across cities. We discuss the implications of our findings for the theory and practice of urban planning and believe that our results produce transferrable insights, which can inform policies striving to create more liveable, resilient, and equitable cities.

Reading Fiction for (a) Change: What Readers Say About Cli-Fi

Misty Matthews-Roper, University of Waterloo

Climate fiction (cli-fi) novels explore societies grappling with climate change impacts. Researchers are excited by cli-fi's potential to influence readers' behaviours in ways that rationality-driven climate messages do not. Other than standard academic analysis of cli-fi, little is known about its social effects, readers, and whether cli-fi alters their behaviour. This exploratory study utilized the principles of empirical ecocriticism to observe the interactions of four virtual Canadian book clubs. Two novels discussed by the clubs, *The Marrow Thieves* and *Blackfish City*, were speculative and dystopian, the other two were set in time periods not unlike the present. Through thematic analysis of the recorded book club discussions two themes about the future and emotions emerged: (1) participants assumed cli-fi novels would depict dystopic futures, and (2) the book clubs became a space for participants to express and feel vindicated about their climate anxieties. Participants' preconceived ideas about cli-fi revealed how they think about the future, namely, that climate change is inevitably leading to an inhospitable future. Although participants were fearful for the future, they were also tentatively hopeful that things could change. These findings align with other environmental communication research, which underscore the necessity of talking about the emotional toll of climate change alongside the science. Additionally, this research provides not only a glimpse into how book clubs create social interpretations of climate change, but also supports calls for more nuanced depictions of our future. Specifically, that the future should be imagined as a place for both losses and gains.

No prospects: dissociative landscape aesthetics

Fergie Maxwell, Toronto Metropolitan University

Environmental communication research suggests that images of the destruction wrought by so-called extreme weather events can disrupt the imperceptibility of climate change's slow violence, eliciting an urgent emotional response in viewers. But the intense, climate-induced wildfires prevailing across North American forests surface the present of climate change not only as fiery disruption of proximate communities – inspiring emotions of awe, fear, and grief – but also as smoky, ambient presence colouring skies hundreds of kilometres away. In analyzing wildfire haze's presence in images archived on the social media platform Instagram – landscape photos and selfies, traffic reports and wedding photos – I locate a curiously muted affective sedimentation of environmental destruction and crisis through the quotidian extensions of its

smoke. Drawing on Lauren Berlant's work on dissociation as a technique of aesthetic sensemaking which does not drive towards a telos of sovereign mastery over the environment, I read these images as a means through which the precarious subjects of settler-colonial capitalism stitch together the often contradictory and violent exigencies necessary to their survival. In its not-so-disruptive disruptions, haze moves us to attend to emotional responses to climate-induced extreme weather events that do not resolve into immediate shock or fear but hold these emotions in tension with the demands of reproduction on the temporal scale of the everyday. Wildfire haze's filtering of images across Instagram indexes both the impasse of climate change and the possibilities immanent to it for lateral grasps and gasps towards some common orientation to the future.

Mediating metabolism: Food programs in Inuit Nunangat

Nathan McClintock, Magalie Quintal-Marineau Lucie Cordier, Hubert Demers Campeau & Laurie Héту, Institut national de la recherche scientifique (INRS)

The metabolism of communities depends on the inflow of food, among other resources. In the Arctic, food programs – federal, provincial, territorial, and those managed by NGOs, Inuit organizations, and industry – play a crucial role in mediating this vital metabolic flow, particularly in the context of skyrocketing food prices, logistics bottlenecks, and the impact of climate change on the provisioning of country food. We present the results of a scoping study of food policies and programs across Inuit Nunangat, to identify and characterize the various actors and institutions involved, the types of practices these programs promote and support, as well as the discourse used by the different programs and funders. We first examined more than 80 food programs and 50 funding opportunities dedicated to improving food security and assessed the central focus of these programs (e.g., community development, education, emergency food), their funding source (e.g., federal or regional government), whether they are Inuit-managed, and whether they explicitly address country food. We then conducted content analysis of dozens of plans and reports to characterize the often-divergent discourse employed by the various institutional actors involved in formal food governance across Inuit Nunangat. Our results reveal stark differences in terms of how federal, Québec, Nunavut, industry, and Inuit organizations (such as ITK, QIA, and Makkivik) define food-related problems, and in terms of the solutions they propose and implement, demonstrating how such discursive orientations differentially shape the nature and scale of flows of food into Arctic communities.

Disappeared behind prison walls: geographies of (dis)connection

Kirsten McIlveen, University of British Columbia and Capilano University

The tendency for the prison is toward becoming a total institution (Goffman 1961). The totalizing tendency of the prison speaks to how important it is to be able to look inside and understand experiences as told by people who have served time. This work allows for this and in doing so we gain greater insight into how the institution loses permeability over time and becomes total in every sense of the word – physically, socially, psychologically, and temporally. In this work, I shift the scale of analysis from the institution to that of the individual, for women who have done time. This elucidates the lived realities of women and how one's experience reflects the totalizing experiences of imprisonment. These personal geographies show the cumulative impacts of these totalizing processes over time. It is important to note that this approach doesn't seek to provide a definitive answer on whether the institution is fully total but instead points to the individual and even collective experiences of the people doing time, as being total. Supporters of the current system can point to several ways that prisoners and their loved ones can stay connected — I argue that the reality is that for many the barriers to sustain this are impossible to overcome. All will experience totalizing effects, but they will do so differently and to a different extent. Giving space for the words of those who have an acute relationship with punishment through containment, surveillance and discipline produces much needed knowledge of carceral power.

The University - Complicit Versus Antagonistic Carcerality

Kirsten McIlveen, University of British Columbia and Capilano University

I suggest that the university intersects with the carceral in three ways and in doing so both supports and reinforces the carceral. First, to gain access ‘inside’, the university must adapt and conform to meet the needs of the prison. It adapts to what is allowable material to be taught, forgoes access to digital information, and accepts technical and scheduling constraints. University then can only provide a ‘carcerally’ constrained educational experience for both ‘inside’ and ‘outside’ students. The price of access to the ‘inside’ involves subtle negotiations and tradeoffs. Second, the idea of university as a carceral site is supported by a recent book, *Abolish Criminology* (Saleh-Hanna et al, 2023), that challenges criminology programs actively engaged with the carceral, reproducing, and structuring it through academic discourse. Geographers also are used as active agents of the state through GIS training, mapping software etc. This is recognized by Henderson and Montagne (2022). Third, researchers in prison come from all disciplines and all must be complicit with the rules of carceral. Despite the Tri Council research ethics board, it remains a complex negotiated space of complicity and antagonism and potentially harmful for prisoners. Often missing is the active questioning of the carceral as a normative and embedded feature of our society. [Henderson and Montagne (2022) in “Beyond Esri: Moving Toward Abolition in Geography” (<https://www.societyandspace.org/articles/beyond-esri-moving-toward-abolition-in-geography>); Saleh-Hanna, V., Williams, J., and Coyle, M.J. (eds). (2023) *Abolish Criminology*. Routledge Press]

Local, Small, and Ecological: A case study of small-scale ecological farming in Southern Manitoba

Mizhar Mikati, Brandon University

‘Small-scale ecological’ farming has been articulated as an alternative model of agrarian development to address various social and ecological crises. Facilitating and encouraging the growth of small-scale ecological farming can be seen as an important element of alternative food networks and visions of sustainable agrarian futures. This kind of farming, whether by small-scale farming operations or market gardens, emphasizes several normative goals and characteristics as a model of alternative agrarian development, such as encouraging the growth of small-scale producers and local economies, encouraging connections between producers and consumers, and low-input, ecological and regenerative farming practices. However establishing and/or reproducing farming operations generally confronts a number of economic and social obstacles and challenges, such as rising costs of production and land access barriers, to name a few. This presentation will examine the case of small-scale ecological farming in Southern Manitoba by discussing and sharing fieldwork findings from in-depth semi-structured interviews with small-scale farmers, market gardeners, and other stakeholders, and participant led ‘farm walks’ at a number of farms and market gardens. This presentation will articulate fieldwork findings in light of contemporary debates and concepts from critical political economic approaches that highlight the contradictions of market-based valuations to normative goals of alternative agriculture.

An Urban Oasis: Medicine Hat’s Central Park 1912-2024

Ben Moffat, Athabasca University

The City of Medicine Hat, Alberta’s Central Park was established in 1907 under interesting circumstances – including a local “mogul’s” donation of its 3.02 hectares in order to assure the construction of a YWCA. Founded on a treeless area of the emergent City known as the South East Hill, it has become a focal point for many activities, chief among them recreational yet includes a functioning natural gas well (from 1913). Central Park stands as an example of a forested urban park that both mitigates climate change and contributes to a local sense-of-place. This paper explores Medicine Hat City council’s application of the City Beautiful Movement (emulating Winnipeg, Vancouver and Regina and projects constructed in those centres) in their creation and subsequent maintenance of this urban park. In more recent times, Central Park’s urban forest may also be seen as an example of the Miyawaki Method whereby “tiny forests” may be viewed as both

carbon sinks and as a means of alleviating some effects of climate change, albeit on a small scale. Central Park contributed to early citizens' well being, provided a community recreational focal point, contributed/s to greenhouse gases and fostered pride among citizens. Its oases-like setting "softened" the Prairie experience of early settlers smoothing the Prairie's harshness and added greenery, humidity and shade to what may have been seen as a forbidding, hot, stark environment. In the 21st Century it may be seen as resisting some of the extremes of climate change and fostering a sense-of-place.

Strengthening women's resilience and participation in climate governance in the agrifood sector through public policies: A strategic review of literature

Kamaldeen Mohammed, Western University

Dina Najjar, International Center for Agricultural Research in the Dry Areas (ICARDA)

Elizabeth Bryan: International Food Policy Research Institute (IFPRI)

Given that women are vulnerable to climate change in unique ways and should make important contributions to increase the climate resilience of the agrifood sector, it is imperative for governments to design and enact proper policies while involving women. First, the review expatiates how public policies at different scales can improve women's resilience to climate change and environmental hazards. Next, and related to this objective, we examine the means to enable women's full and effective participation in climate governance at different scales. Findings related to strengthening women's participation and leadership in climate and disaster risk governance at global and national levels reveal that public policies mainly focus on the use of quotas, capacity building and incentivization. Also, facilitating women's access to productive agri-food resources, human capital and economic opportunities and addressing harmful gender norms are promising public policy responses to building and enhancing women's climate and disaster risk resilience. An implementation and evaluation gap exists for public policies on improving women's resilience and participation in climate governance. We conclude by recommending outcome-oriented studies for these identified promising public policy approaches and a robust evaluation of the extent to which these effectively improve women's resilience and participation.

Planning for Immigration: Addressing 'Missing Middle' Housing to Accommodate Newcomer Population Growth in Halifax, Nova Scotia

Kim Molyneaux, Dalhousie University

As Canada aims to welcome half a million new immigrants annually, municipalities are tasked with addressing a historic housing deficit, among other growth-related challenges. This paper explores the concept of 'missing middle' housing as a solution to accommodate diverse population growth and promote sustainable development in urban service areas. The term 'missing middle' is used to describe the gap in a range of housing types that declined across North America since the early 1940s due to exclusionary zoning policies, favouring the development of single-unit dwelling neighbourhoods (Parolek, 2017; Popal, 2020). Using Halifax, Nova Scotia, as a study area, the research considers the housing obstacles faced by newcomers in a region where population growth is outpacing vacancy rates. This study, completed as a senior undergraduate thesis in April 2024, contextualizes Halifax within the broader trend of mid-sized Canadian cities undergoing residential zoning reviews through Canada's National Housing Strategy (CMHC, 2023). As planners are beginning to acknowledge the importance of preserving cultural identities through land use (Harwood, 2022), cultural needs and preferences in housing are also explored in this study. Through quantitative analysis of demographic data and a series of interviews with planners, immigrant service agencies, and housing providers, the study explores the intersection of housing provision, population growth, and immigrant settlement experiences, as it relates to newly proposed housing initiatives. Findings underscore the importance of policy interventions, such as the Housing Accelerator Fund, in promoting inclusive and sustainable housing development. The paper further emphasizes the need for collaboration across government levels and sectors to address housing supply and affordability challenges, particularly in supporting

Drivers of Downtown Intensification: Lessons from Kelowna, British Columbia

Bernard Momer, The University of British Columbia - Okanagan Campus

Rylan Graham, University of Northern British Columbia

Mid-size cities have consistently been characterized as low-density, dispersed and decentralized principally due to the pervasiveness of car-oriented development and policies favouring sprawl (Bunting et al., 2007; Talmage & Frederick, 2019). This research investigates the factors driving downtown intensification in Kelowna, British Columbia, a mid-sized Canadian city experiencing a population and development boom. The study is part of a multi-phase project exploring intensification in mid-sized cities, with the downtown of Kelowna presenting a unique case. The first phase identified significant barriers to intensification in Regina, a city lagging in this area. This second phase, grounded in Kelowna's context, aims to understand the factors contributing to its success, which could potentially be replicated in other mid-sized cities. Through semi-structured interviews with Kelowna's planning and development stakeholders, the study explores the key drivers of its intensification. Our findings suggest that natural amenities, proactive local government, and an attractive housing market are significant facilitators of intensification. Additionally, Kelowna's appeal to developers from larger centers, a rapid population growth coupled with declining average age, increasing housing costs driving residents to reconsider higher density living, and high-amenity value of the downtown area are other significant factors. This momentum, however, is threatened by rising interest rates, labor shortages, and changing short-term rental regulations. This research contributes valuable insights for policymakers and planners in similar mid-sized cities seeking downtown revitalization. By understanding the factors underpinning Kelowna's success, urban planners can better navigate the complexities of intensification, potentially replicating Kelowna's achievements in other contexts. Bunting, T., Filion, P., Seasons, M., & Lederer, J. (2007) Density, size, dispersion: towards understanding the structural dynamics of mid-size cities, *Canadian Journal of Urban Research*, 16, pp. 2. Talmage, C. A., & Frederick, C. (2019). Quality of life, multimodality, and the demise of the autocentric metropolis: A multivariate analysis of 148 mid-size U.S. cities. *Social Indicators Research*, 141(1), 365–390.

Beyond Carceral GIS in Geography

Leah Montange, University of Toronto

Drew Heiderscheidt, Indiana University

Jane Henderson, Dartmouth College

Araby Smyth, Mount Allison University

This paper calls for engaging students in struggles for social justice through an analysis of Esri's role in policing. This paper will chart the widespread use of GIS by police departments throughout North America, zooming in on GIS-industry giant Esri's line of products for law enforcement. We employ a mixed-methods approach that combines observations from the 2023 Esri User Conference, our reading of Esri Press's textbooks for police users, and an analysis of documents acquired through public records requests with 54 municipal police agencies. We will first outline the breadth of Esri products for police and the ways they are taken up by various police agencies, focusing on how these products, in the words of Brian Jordan Jefferson, "entrench and legitimize the geographic knowledge and practices of racialized policing." We then use these discussions to provoke ethical and political questions about our role in geography departments as GIS instructors and mentors in training the next generation of geo-spatial analysts who will seek public employment. Then, we share the Beyond Esri Resource Guide, a pedagogical tool for instructors of geography which shares the work of community initiatives that use GIS in projects for abolition, and highlights free and low-cost alternatives to Esri and resources on how to use them. Our goals for sharing our research on Esri and the first edition of the Resource Guide with audiences at the annual Canadian Association of Geographers meeting are: 1) to encourage the use of the guide in geography classrooms, 2) to incorporate critical feedback as we continue FOIA requests, prepare articles and visualizations of our

findings, and 3) strategize more creative pedagogy in action such as a future version of the Beyond Esri Resource Guide, a learning module, lessons plans, syllabus, and/or a teach-in.

Detention, Remains, and Urban Struggle in Madrid

Leah Montange, University of Toronto

El Centro de Internamiento de Extranjeros – Aluche (CIE Aluche), is a migrant detention facility in the outskirts of Madrid, Spain. This prison is in what was once the hospital building for the Carabanchel prison complex, a large Francoist-era prison that housed every one of Franco’s political prisoners post-Civil War until 1976. In this paper, I trace how the remains of the prison and the political struggle around it during Spain’s transition from fascism continue to shape the detention centre and the contemporary political struggle over land use at the site. In addressing how Spain’s 20th century fascist legacy is built into the landscapes and infrastructures of Madrid, I argue these continue to reify the marginalization of Others today, though in ways that weren’t initially evident to the neighborhood social movements that concerned themselves with the Carabanchel Prison land parcel. I then focus on two watershed moments of migrant uprising in which the politics of historical memory began to cohere with detention abolition politics in Madrid. In particular, I demonstrate how the simultaneity intrinsic to urban space offers possibilities for new political coalitions to form, ultimately arguing for an understanding of abolition politics as a historically and geographically situated practice.

Preserving the Cultural and Natural Heritage of Akamiu-Uapishku: A Pathway to Sustainable Conservation through Innu Stewardship

Gioia Montevecchi and Jack Penashue, Innu Parks and Protected Areas, Innu Nation

Akamiu-Uapishku , an integral part of Nitassinan, Innu homeland, holds immense cultural and natural significance for Labrador Innu. Translating to "white mountains across," this region boasts a rich history intertwined with ancient travel routes, diverse landscapes, and abundant healthy populations of wildlife. The proposed Akamiu-Uapishku Indigenous Protected and Conserved Area (IPCA) presents a unique opportunity to expand Atlantic Canada's protected areas by 21,000 km², further safeguarding a pristine sub-arctic boreal ecosystem in central Labrador. Shared management and Innu stewardship planning is well underway, with Innu Nation taking proactive steps in establishing shared Interim Management Guidelines with Parks Canada, and development of a Stewardship Framework embedded in traditional Innu respect and care for the land. Measures such as establishment of a National Park Reserve, and withdrawing future Innu land claim areas (current falling under provincial purview) from mineral staking and commercial forestry, underscore a commitment to conservation and sustainable management practices. Finalizing the Establishment Agreement for the proposed Nutapineuanianu shipu | Eagle River Waterway Provincial Park is crucial for delineating roles and responsibilities in achieving shared conservation objectives. Looking ahead, the establishment of the Akamiu-Uapishku IPCA will require substantial resources and collaboration between Innu Nation, Government of Canada, and the Government of Newfoundland and Labrador. Join us on a journey to explore the intricate tapestry of Akamiu-Uapishku and delve into the opportunities, strategies and partnerships driving the sustainable conservation of this culturally and ecologically significant landscape.

Effects of Empathy and Self-Efficacy in Relation to Attitudes toward Water Resilience: Can Serious Games Help?

Zaara Momin, Julia Baird & Gillian Dale, Brock University
Evalyna Bogdan, York University

Effective water governance is crucial considering water’s role in sustaining life. Currently, billions lack access to safe water, while concerns regarding water security and climate change impacts grow. The emerging concept of “water resilience” to address these concerns is gaining traction. Societal attitudes that align with principles of water resilience will support strategies that build water resilience. Social cognition predicts

behavior, motivating further exploration of psychological aspects that may lead to actions supporting sustainability efforts. I focus on empathy and self-efficacy; two individual traits that have a demonstrated relationship with attitudes toward water resilience. They have the potential to foster change by influencing people's attitudes towards water resilience and the strategies that build it. Further, empathy and self-efficacy are individual traits that can change over time. With this in mind, my research used a serious game, which is designed specifically to be educational and collaborative, to foster greater empathy, self-efficacy, and water resilience endorsement in individuals. The research followed a pre-and post-intervention format. Before and after the serious game, participants are asked to complete a survey with questions about the two individual traits and water resilience endorsement. Additional qualitative questions were included to provide additional insight. The quantitative as well as qualitative results will be presented along with insights about how empathy and self-efficacy may help bring systemic change in relation to water sustainability.

New energy, old regimes: Quebec's energy transition and the colonial legacy of resource extraction

Cynthia Morinville, Université du Québec à Trois-Rivières

This article discusses recent developments and policies related to the energy transition in Quebec. In the last year alone, the provincial and federal governments have invested over 9 billion dollars in the creation of an entirely québécois lithium-ion battery ecosystem—from extraction to recycling. In this paper, I examine these recent developments to show how the present moment is marked by a recuperation of the climate emergency to continue longer historical projects of colonial and capitalist extraction in the province. Moving through three distinct moments of resource extraction—the Duplessis era (1930-1960), the quiet revolution and energy nationalization (1960-1980), and the plan nord (2010-present)—, I trace how the remains of past energy and sovereignty related discourses reverberates in the current moment to shape new energy-related policies and how the energy transition is mobilized as rationale for a vast state-led developmentalist project. Inspired by the work of Stuart Hall and Antonio Gramsci and a renewed interest in conjunctural analysis, the analysis simultaneously situates this political moment at the intersection of current international geopolitics and the province's own historical energy development.

Will co-management improve the outcome of the Gilbert Bay, Labrador MPA: Suggestions for the future based on long- term ecological research and monitoring.

Corey Morris, Fisheries and Oceans Canada (DFO)

Local residents identified Atlantic cod (*Gadus morhua*) in Gilbert Bay, Labrador as “bay-cod”, and that they were susceptible to overfishing when commercial fishing resumed along the Labrador coast in 1998 after a 6-year northern cod fishery moratorium. Through collaborative efforts among stakeholders, the Canadian Department of Fisheries and Oceans (DFO) established the Gilbert Bay Marine Protected Area (MPA) in 2005 to protect this unique population of Atlantic cod. The important genetic diversity contributed to Atlantic cod is now well established and the decision to protect this population within an MPA was a forward- looking decision in a climate-changing world. Unfortunately, despite protection, the cod population has significantly declined since establishment of the MPA. This has been accompanied by waning local MPA support. A number of post MPA establishment changes have occurred in the Gilbert Bay area that include the relocation of a local community and changes to the northern cod stock and its fishery management policies. Unfortunately, management actions aimed at sustaining and re-building the bay's cod population have not been part of changes. Ongoing socio-ecological changes however, may represent new opportunities to rebuild the cod population as well as increase MPA support. The NunatuKavut Community Council (NCC) are now working with DFO towards a co-management arrangement as part of the MPAs current management plan (2023-2025), and co-chairs with DFO on the MPA advisory committee. This is an important change, and local and/or indigenous input in the context of shared management responsibility could lead to actions aimed at rebuilding the cod population with renewed support from local communities. We briefly review (1) the history of the Gilbert Bay MPA in the context of north Atlantic cod, (2) scientific research and monitoring associated with Gilbert Bay, (3) research identifying the primary factor responsible for the decrease in Gilbert

Bay cod, (4) scientific advice emanating from research and monitoring, and (5) the reason for the lack of management action in response to that advice. With the pending change to local co-management, we then discuss the opportunity for introducing adaptive management into future management plans with the aim of rebuilding the cod population as a social, ecological and financial asset for the nearby communities. The current and continuing database from long-term research insures the results from management actions are measurable.

Wasting and Aiding: how discarded fish became Fish Protein Concentrate in Canadian food aid

Sam E. Morton, Memorial University of Newfoundland and Labrador

How do fish figure into the politics of protein? Some commercial fisheries discard fish and other marine species when caught as by-catch or non-target species. One way of dealing with the problem of discarded fish has been through the development of Fish Protein Concentrate (FPC) as a powder or paste that can be used as an additive in foods meant for human consumption. The purpose of this research is to explore how 'the protein gap' came to frame the promise of FPC in addressing global hunger. I use archival research to explore how fish from Newfoundland and Labrador became fish aid – fish as food aid – in Canada's international food aid programme, that peaked in the 1980s. The argument in this paper is that understanding the development of FPC can contribute to understanding how the politics of protein are underpinned by the twinned logics of wasting and aiding. Bringing together fisheries and foreign aid literatures, coupled with an engagement with discard studies and animal geographies, preliminary results suggest that in order for fish to flow as food aid from Canada they had to become 'wasted' first.

Global aspirations, local entrepreneurial urbanism in the Penang South Islands project, Malaysia

Sarah Moser, McGill University

Peninsular Malaysia's coastline in many regions is littered with failed or underutilized urban mega-developments launched over the past decade by some of China's top property developers. Despite the failure of these risky and speculative mega-developments, several copycat developments are underway led by Malaysia state actors. One such project is the Penang South Islands project, an audacious scheme to create three massive islands in the ocean totalling over 18 square kilometers. The project was launched as a strategy to fund the Mutiara (Pearl) Line, a 29-kilometer-long light rapid transit system designed to connect George Town in north Penang to the Penang South Islands project off Penang's southern coast, through the sale of land on the islands. The firm of Danish architect Bjarke Ingels (BIG) was hired to create the master plan of the islands, developing a scheme he calls 'BiodiverCity', which aims to 'expand human activity while not only preserving, but growing and strengthening habitats for all forms of life'. Through the case study of the Penang Three Islands Project, this paper examines the global ambitions of a local Malaysian state government and critically analyses the globally circulating sustainability and eco-cities rhetoric being employed to legitimize and promote a high-risk speculative and entrepreneurial urban development as a solution for funding public transportation.

Rethinking Geopolitics and Concept of Being

Zahra Moussavi, University of Tehran

Since its formation, Geopolitics has emerged in different knowledge-power structures and discourses. In this regard, traditional geopolitics, which is defined based on the concepts of territory and territoriality and as a part of imperialist knowledge, was challenged by critical geopolitics after the World War II, and its foundations were rethought. Following the expansion of critical geopolitical knowledge, new discourses emerged, including environmental discourse. By addressing the political issues that exist behind the construction of space and the production of nature, this discourse has played an important role in challenging the modern notion that nature is an external entity. However, nature is still perceived as the "other", in a way that now, man and earth are on a historical edge. Therefore, Geopolitics needs to rethink its concepts and methods and stabilize its theoretical foundations once again with regard to the problems caused by human

alienation from nature. According to the above approach, this article intends to deal with why and how to rethink geopolitical knowledge with regard to the concept of "being".

The social network structure of global student migration across traditional, planned, and emerging destinations

Ebenezer Narh & Michael Buzzelli, University of Western Ontario

International student migration (ISM) has become increasingly complex, influenced by factors such as economic opportunities, educational quality, and cultural exchange. Evidence shows destination countries may be more interconnected and therefore timely estimates are important to keep up with the rapid changing structure of ISM. This research aims to examine the social network structure of global student migration across traditional, planned, and emerging destinations. The study leverages on real-time data by 'nowcasting' ISM from social media to understand the migration patterns and its multipolar nature. Using quantitative analysis of the nowcasted data, interaction matrix was constructed to depict the 'exchange' of migrants among 7 traditional (e.g. USA, UK, Canada), 6 planned (e.g. Singapore, UAE, Malaysia) and 7 emerging destinations (e.g. China, Spain, India). Metrics from the social network analysis included degree centrality, eigenvector centrality and betweenness centrality. High density of country-to-country links was found among the 20 destinations. Proximity appears to play a crucial role in the network density, although indications of language, cultural and political barriers are present. Also, traditional destinations - - especially the USA - - dominate in terms of influence in the network. Outbound students from countries of emerging hubs mostly prefer traditional destinations. Planned hubs have moderate outbound links to emerging hubs, but high preference for traditional destinations. The findings provide insights into the evolving landscape of global student mobility, including the emergence of new migration corridors and the changing dynamics of traditional destination countries and its policy implications for the higher education sector.

Emotions Associated with Climate Change and Climate-Related Relocation: Lessons from Port aux Basques

Lawrence Nditsi, Memorial University

Climate change has presented a daunting reality of environmental threats with associated emotions. The complexities of emotions related to climate change are perhaps the most troubling for communities with strong connections to their natural environment. Prior research has discussed the deep implications of emotions and how they influence people's reactions to climate change, but significant gaps exist regarding how emotion influences climate change decision-making, including adaptation in Newfoundland. Drawing from the concept of ecological grief through narrative research, mixed emotions were examined in the community of Port aux Basques regarding the impacts of climate change and the associated relocation initiative undertaken in the community following Hurricane Fiona. The dominant emotions that emerged from the study were grief and anxiety. While grief and anxiety encouraged relocation in a section of the study population, it deterred the same in others. Experiences with extreme weather events, including Fiona, have resulted in increased anxiety over proximity to the ocean, while at the same time, detachment from the ocean (relocation) results in grief and other psychological responses. These responses were exacerbated in Port aux Basques by how the relocation was done. This complex nature of emotional response has implications for climate change adaptation efforts for coastal communities, including Port aux Basques, and will necessitate the creation of adaptation strategies that seek to understand and acknowledge these dynamics, with a commitment to address the needs of different groups with these differing emotional responses to measures such as relocation.

Path Dependency and the Composition of Land Use, Built Form and Establishments in the Downtowns of Northwest British Columbia

Stephan Nieweler, Simon Fraser University

This dissertation examines sustainability and economic vitality in the downtowns of three transitioning resource towns in northwest British Columbia (BC), from the perspective of path dependency. The theory highlights a link between initial or earlier decisions and subsequent ones. With unique origins and influences during historic waves of investment, Prince Rupert, Terrace and Kitimat each followed their own planning and development path prior to entering a difficult and lengthy period of regional economic transitioning since the 1980s. Despite new economic activities and the emergence of relative population stability in the past decade, each core is constrained by its historic legacy of planning and development. This is embedded within the temporal accretion, depreciation and attrition of physical investments, and the associated entrenchment of local routines of life. Legacies are rooted in various policies and sub-policies, generating a system of opportunities, constraints and expectations that are not easily dislodged. Renewed industrial growth has only brought about an end to population decline, rather than serving as an impetus for significant new development, or even the reversal of long-standing imbalances in commercial leasing. Expectations of downtown revitalization, in line with current normative planning and development frameworks, are often not realized, as inertia and lock-ins restrict the limited impetus for change in a stable dynamic. While growth may be a 'necessary' condition to attract substantive investment that could facilitate paradigmatic change, it may not be 'sufficient', as past legacies steer new development towards predictable outcomes based on several types of path dependency that influence outcomes.

Exploring the spatial distribution of green spaces in the Census Metropolitan Area of St. John's, Canada, using an environmental justice lens

Samira Norouzi & Mahyar Masoudi, Memorial University

Compelling evidence demonstrates that green spaces provide essential benefits for city dwellers. However, research shows that in some urban areas, the distribution of green spaces and their benefits is unequal across different population groups. For instance, lower green space coverage has been observed in neighborhoods primarily inhabited by low-income people and certain ethnic communities, such as Indigenous people and immigrants. However, almost all existing evidence is from large cities, including in Canada. As small and medium-sized cities (SMCs) have their own distinct contexts, the results from larger cities may not be applicable to these communities. Additionally, the growing population of SMCs in Canada necessitates conducting research to better understand patterns of environmental inequality. Combining methods from remote sensing and geospatial analysis and utilizing Canadian Census data, this study will investigate whether there is an environmental inequality relating to the distribution of green spaces across 13 communities comprising the St. John's Census Metropolitan Area. Identifying existing patterns of inequality in smaller communities is a first step and can inform future research and urban planning efforts to ensure that all city dwellers have equal access to these vital resources and the benefits they provide.

Gender-based violence in WASH: A threat to global health security

Abraham Nunbogu & Susan J. Elliott, University of Waterloo

Despite the progress in access to WASH in Low- and Middle-Income Countries (LMICs), significant inequalities exist across space and place. This paper uses insights from feminist political ecology of health to explore the multi-scalar ways WASH inequalities expose women and girls to violence in their WASH spaces. We explore this issue using retrospective narratives from in-depth interviews with 27 Ghanaian migrants (16 women and 11 men) residing in Ontario, Canada. The case of Ghana offers insight into how gender-based violence (GBV) in WASH is produced, maintained, and embodied in space and across temporal scales. The results reveal the embeddedness of GBV in socio-political and institutional structures of place. Expanding the analysis to consider impacts beyond the household (i.e., individual) scale showcased the collective embodiment of WASH-GBV and how vulnerabilities to GBV permeate social structures in Ghana. Collectively, the findings demonstrate how WASH-GBV is a cross-cutting issue and a barrier to achieving SDG 3 (population health and wellbeing), SDG 5 (promote gender equality), and SDG 16 (peaceful and inclusive societies).

A Spatial and Temporal Analysis of Hate Crime in Ottawa: 2018 to 2023

David Cardenas Ochoa, Christian Perez, Daniel Huang & Evan Cleave, Toronto Metropolitan University

This poster explores the geographical patterns of hate crimes in the City of Ottawa, Canada between 2018 and 2023. Hate crimes are defined by having a perpetrator who targets a victim because of their physical appearance or perceived membership of a certain social group. Over the study period, there were 1641 hate crimes reported in Ottawa, representing just under 1% of all crime in the city. The level of hate crimes is not static in Ottawa, with a 619% increase between the reported numbers for 2018 (n = 67) and for 2023 (n = 482). The distribution of hate crimes is also heterogeneous, with some areas of Ottawa experiencing higher levels crime. To explore these patterns and how they have changed over time, this study uses open-source crime data from the Ottawa Police Service to conduct descriptive, spatial and temporal analysis (i.e., emerging hotspot analysis; Getis Ord G_i^* and Mann-Kendall trend test) of hate crime rates. To perform the analysis, the hate crimes (n = 1641) were aggregated to the census tract level (n = 205). Temporal trends were analyzed using a monthly time-step. The analysis demonstrates that hate crimes in Ottawa began to rise in early 2020, in conjunction with the Covid-19. Additionally, approximately 20% of census tracts were found to be emerging or persistent hotspots for hate crimes.

Machine learning in environmental exposure modelling: Advances and opportunities in traffic noise prediction and health impact assessment

Tor Oiamo, Henry Chen & Evan Cleave, Toronto Metropolitan University

Environmental noise is a growing and concerning issue in Canadian cities especially, due to forms of mobility and built environments typically observed in North America. Traffic noise is the most significant source of noise in cities and reducing exposures and associated health effects, such as stress and cardiometabolic diseases, depends on reliable and repeatable population health impact assessments, which in turn rely on robust exposure assessments. Traditional methods of exposure assessment across large urban areas utilize deterministic models of traffic noise emissions and propagation and are highly resource demanding in terms of data input and processing. Advances in the application of machine learning (ML) models to satellite imagery processing, classification and segmentation offer alternative tools to conduct exposure assessments of noise (and other stressors) at large scales, with temporal resolution. This paper discusses the development and validation of a predictive model of traffic noise based on satellite imagery alone and trained on environmental measurements in London, Ontario, and the results of transferring this model to other cities. Results are compared to traditional methods of noise modelling and complemented by a discussion of complementary use cases, in particular the associated exercise of conducting a noise impact assessment in accordance with current states of practice.

The politics of managing climate-driven coastal flooding: Evidence from Keta in Ghana

Reforce Okwei, Desmond Adjaison & Godwin Arku, Western University

As the evidence of climate change continues to mount, the threat to coastal communities in Ghana is becoming increasingly urgent. The need for mitigation and adaptation strategies to combat climate change-induced flooding is paramount for the effective planning and management of vulnerable countries like Ghana. The traditional approach of predominantly depending on expert views for the planning of coastal resilience projects diverges from the contemporary understanding of environmental management and leaves important aspects of community engagement and knowledge mobilization lacking. Nonetheless, achieving this necessitates unmasking the politics of coastal flood management, which drives adaptation intervention decision-making in Ghana. By adopting an integrated approach, this study interviewed community residents, traditional leaders, and municipal and disaster management institutions to examine the politics of coastal flooding and the critical role of community knowledge in Ghana. The finding suggests that adaptation

intervention decisions in Ghana are predominantly shaped by political considerations rather than a rigorous technical analysis and alignment with community expectations. Based on the findings, the study recommends an integrated flood management approach that incorporates institutional knowledge, community experiences, and scaling up of climate education among vulnerable communities.

Cooperatives, Communities, and Resilient Commoning

Jonah Durrant Olsen, University of Toronto / Mondragon Unibertsitatea

This paper offers an innovative approach to examining the reproduction of alternative economic spaces. Drawing on ethnographic fieldwork in the Basque Country, Italy, and Canada, I examine how cooperatives are embedded in broader community networks that extend beyond the 'edges' of the cooperatives and play a critical role in their success. I argue that broader socio-spatial dynamics, and not merely immediate institutional dynamics within the cooperatives themselves, are fundamental to their reproduction and their long-term viability. Drawing on both social economy and commons literatures, I integrate the concepts of 'threshold spatiality' and the 'commons circuit' to describe the dialectical and diverse processes of community reproduction that have led to the success of large-scale cooperative movements, including Mondragon, Emilia Romagna, and Quebec. My analysis of these case studies is deeply rooted in both historical and contemporary political-economic and socio-spatial context, considering how historical changes at various geographical scales have shaped the conditions of possibility of each case. These examples illustrate the ways that cultural, political, and regional identities and relationships have been integral to the creation, reproduction, and expansion of alternative economic spaces.

Transboundary basins: problems, and emerging trends

Adeyemi Olusola, York University

Water resource planning is a complex process that requires careful design and implementation of river basins. While planning for basins within a country is often straightforward, transboundary basins require a more structured and integrated basin management approach, which can be challenging to implement due to regional variations, economic priorities, insurgencies, and inter-ethnic wars. In light of these challenges, this study aims to systematically review transboundary basins and highlight emerging trends while proposing possible solutions. The study utilized a search string on SCOPUS based on a balance between specificity and inclusivity, which led to the discovery of a total of 144 documents relevant to the study. These documents were then uploaded to biblioshiny to gain a deeper understanding of the texts. Interestingly, the study found that the growth and interest in transboundary basins piqued in 2010 and has since seen intense interest in shared basins. Despite the global debate about the importance of transboundary basins, the study found limited use of the term "transboundary cooperation" in various documents. However, emerging topics in transboundary basins include water pollution, governance approach, land use, risk assessment, flood control, and stakeholders. In conclusion, this study highlights the importance of carefully managing transboundary basins and proposes possible solutions to overcome the challenges that arise. With increased awareness and collaboration, we can effectively manage transboundary basins to ensure sustainable use and management of our most precious resource: water.

Chicanx/Latinx Cannabis Spaces: Embodied Knowledge as Feminist Geographic Approach

Magaly Ordonez, University of Utah

In this presentation I argue that cannabis spaces hold meaning and memories that vary in composition based on those present, location, intention, and capacity. I suggest that Chicanx cannabis spaces are culturally-relevant and, in my research findings, prioritize holistic well-being, bodily/embodied knowledge, and are a way to fight and re-imagine a future rid of carcerality, racism, homophobia, ableism, and oppression, without romanticizing cannabis. Cannabis spaces are politically, socially, and geographically shaped by the city's cultural landscape, and Chicanx/Latinx feminist geographers offer an examination of the overlapping impact and cultural shifts on cannabis through an analysis of race, class, gender, sexuality, and space (Brady

2003; Cahuas 2020; Muñoz 2016; Muñoz and Ybarra 2019). Situated within a history of uneven relationships of power tied to the racial criminalization of cannabis in California specifically, and the U.S more broadly, I offer an interdisciplinary approach to cannabis studies to highlight the complexities of Latinx/Chicanx cultural, political, and economic cannabis relationships at the edge of society and cannabis research as well. Methodologically, this presentation is grounded in qualitative mixed methods consisting of ethnography, archival research, and Esri StoryMaps to theorize about how Chicanx/Latinx communities offer embodied insights to thinking about cannabis across the spatial complexities including segregation and gentrification in Los Angeles. I build from my dissertation research to contribute to Chicana/x and Latina/x feminist geographies that prioritize social responsibility and justice for folks most marginalized by gendered structures of oppression.

Campus Social Infrastructure for International Students

Jenny Ott, The University of Tennessee

The trend of international student mobility has become a flourishing industry in today's era of migration, globalization, and transnationalism. An increasing number of students are seeking opportunities for higher education and work-study programs abroad. What systems of care are in place for students who migrate across borders, adjust to new cultures, and create a new home? What space on campus is available for international students to adjust and connect? What responsibility does the university have in helping students process through the precarity of migration? Universities are marketing themselves as places that offer growth and advancement opportunities, and they are developing new departments that focus on student success, health, and engagement. However, international students, a minority on campus, face unique challenges. The goal of my research is to establish a connection between the felt needs of international students, the perceived needs of the campus departments that are responsible for aiding international students, and the social infrastructure of the university that can bridge the gap in aiding with retention, resiliency, and holistic support. My research aims to work collaboratively with international students and service providers to identify effective strategies that can be employed to promote a welcoming and inclusive environment and supporting spaces for international students on campus. Through ethnographic research, photovoice, and embodiment mapping methods, I aim to learn from student experiences and the realities of department capacities. Universities have the opportunity to provide international students with the supportive infrastructure they need to succeed through achieving their desired degrees and accessing job opportunities.

Reimagining Housing Systems to Account for the Climate Crisis in the North

Jenine Otto & Arn Keeling, Memorial University

Julia Christensen, Queen's University

Nunatsiavut Government & Community of Nain

In the North, the climate and housing crises are colliding. The housing and climate crises intersect in critical ways as permafrost thaw, rising sea levels, rapid winter melts, sea ice loss, and erosion exacerbate already-existing housing deterioration and chronic housing need. This project studies this collision in Nain, Nunatsiavut. Specifically, the aim of this research is to map housing as a system of several components, its critical intersections with climate change, and amplify community-identified needs. Methods: The methodological design of this project takes an anti-colonial storytelling approach. First, members of both the Nunatsiavut and provincial governments were interviewed. Second, home visits were conducted with residents of Nain, and photos were taken of housing concerns at the direction of interviewed residents. Lastly, youth photographers, local to Nain, participated in documenting their housing and climate change observations. These methods were utilized to identify components of the housing system, understand the impacts of climate change, and centre community expertise. This project is in collaboration with the Nunatsiavut Government and the community of Nain. Results and Conclusion: This project determined that a housing system includes the infrastructure and design of a house, policy and regulation, maintenance programs, transportation, energy, labour, cultural considerations, and the land itself. Additionally, the Arctic climate and its rapid changes impact many components of the housing system, leading to adverse challenges

for residents. Ultimately, community members shared valuable expertise on the subject and insight into future policy development and necessary responses.

Minority Stress and the Unbounded Workplace

Benjamin Owens, University of Toronto

Suzanne Mills, McMaster University

The workplace is a key site where 2SLGBTQ+ people face discrimination. A vast literature now documents discrimination based on gender identity and sexual orientation at work, ranging from microaggressions to overt discrimination and violence (McFadden 2015; Mills & Oswin). Connecting discrimination to the mental health of minoritized groups, the minority stress model posits that social environments, and not the inherent psychology of 2SLGBTQ+ people themselves, are the cause of adverse mental health outcomes (Meyer, 2003). Despite a wealth of literature on the subject, much of the scholarship has focused on predicting adverse mental health outcomes in individuals irrespective of their spatial context. Drawing on interviews with 50 2SLGBTQ+ workers in Windsor and Sudbury, Ontario, we suggest that the spatial attributes of work are implicated in mental health, demonstrating how workplace stressors are simultaneously employed in and exceed the spatiotemporal bounds of the workplace. As a geographical intervention into minority stress, this paper thus interrogates the ‘edge’ of labour geography’s cleavage with public health scholarship. References:

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From Caregiver to Personal Support Worker: Labour Market Segmentation Amongst Filipina Former Live-in Caregivers in the Greater Toronto Area

Nikki Mary Pagaling, York University

The lowest rung of the Canadian healthcare system is occupied by those categorized as personal support workers (PSWs). Despite their important contributions to Canada’s healthcare system, this work is stigmatized, devalued and characterized by multiple dimensions of precarity. It is also a labour segment that is increasingly differentiated by gender, race, and citizenship, with Filipina immigrants accounting for 30% of immigrants in this workforce. Recent scholarship has drawn connections between Canada’s Live-in Caregiver Program (LCP) and the overrepresentation of Filipina immigrants in PSW roles. While these studies demonstrate how most caregiver migrants eventually transition out of caregiving, many remain in a narrow set of low-wage, “low-skilled” occupations, with PSW work emerging as a notable choice. By centering the experiences of Filipina PSWs in Toronto who arrived in Canada as migrant caregivers, this presentation explores how the caregiver-to-PSW pathway is constituted in the local labour market and within the lifeworlds of Filipina former caregivers. Through a feminist geography framework, I call attention to the institutional and discursive mechanisms that shape how former caregivers calculate their post-caregiver program labour market decisions in relation to life’s work and social reproduction. I also demonstrate how these negotiations are mediated by their experiences of precarious legal status. Importantly, I situate my analysis within the wider institutional landscape of Canada’s temporary migrant caregiver programs, and the gendered politics of transnational labour migration in the Philippines, to illustrate the context in which Filipina women come to view PSW work as a viable and suitable post-caregiver program career.

“We succeed when our projects are context-specific”: documenting solutions to water, sanitation, and hygiene inequities in Brazil

Rodrigo Curty Pereira & Susan J. Elliott, University of Waterloo

The world is experiencing a global water crisis, with increasing water stress, pollution, frequent droughts and flooding, and stark inequities in access to water, sanitation, and hygiene (WASH). In its roadmap to COVID-19 recovery, the United Nations recommends that researchers collaborate with local authorities and communities to ensure continuity and quality of water and sanitation services. Knowing that, this research aimed to document solutions to WASH inequities implemented by civil society organizations (CSOs) and communities in Brazil, as well as their potential for transferability to other WASH-inequity geographies. Partnering with local CSOs, we designed a comparative case study of three communities facing WASH challenges in Rio de Janeiro. In each community, we interviewed CSO representatives (n=3) and conducted focus groups (n=3) with residents (n=18). Interviews were digitally recorded and transcribed verbatim for subsequent thematic analysis. Participants revealed innovative solutions involving diverse stakeholders, such as water-filtering projects promoted by social enterprises alongside CSOs, and communal well-drilling involving faith-based organizations and start-up companies. Additionally, residents reported commonly working together to fix broken pipes, fundraising to build water infrastructure, and digging ditches to dispose of wastewater. These communities faced similar WASH obstacles, but the resources available to them when implementing solutions varied significantly depending on their location, which limits transferability. Those living in the capital reported positive ongoing experiences with multiple CSOs, while residents from more peripheral communities expressed frustration towards the scarcity of social projects. Exploring these unique experiences can foster collaboration among CSOs and communities and inform context-specific solutions to WASH.

The Toronto Wages for Housework Committee: A Contribution to the Critique of Society and Space

Sinead Petrusek, University of Toronto

This paper investigates the relations between social reproduction feminism and urban geography, with special reference to the Toronto Wages for Housework committee. On the basis of archival research, I examine how Wages for Housework Toronto collaborated with other urban social groups such as immigrant domestic workers, shelter operators, tenants, and welfare activists to challenge dominant views about property and work. This study is a critical component of my larger historical-geographical project, which examines socialist-feminist interventions to transform domestic labour and dwelling in Toronto throughout the 1970s-80s.

Making Momentum: An Exploration of Potential of Circularity Surrounding Atlantic Canada's Makerspaces

Christopher Phelan & Nicholas Lynch, Memorial University

As we become increasingly conscious of the finite nature of our world's natural resources, we must adapt our production and consumption models to reflect their precarity. The circular economy (CE) proposes an alternative economic model in which goods are created and consumed in a manner conscious of a product's life cycle. By envisioning a closed production/consumption loop, the CE attempts to reduce waste through intentional design, localized production and consumption, a focus on user-level repair and reuse, and localized reentry of reusable material into the production cycle. While much academic attention has focused on the methods of industrial circularity, relatively little has focused on localized and individualized methods of achieving circularity. In response, this work explores makerspaces as collaborative places where the means of small-scale production are shared and examines them through the lens of potential circular futures. Given that makers are provided with access to the tools and knowledge necessary to enable independent manufacturing and repair at a local level, a marriage between makerspaces and the CE seems like a natural fit; however, these spaces have evolved independent of those ideals and as such are not inherently circular. While makerspace administrators have expressed an interest in CE concepts, the existing structure and function of makerspaces prohibits streamlined adoption of the CE. To facilitate potential makerspace circularity without overly

disrupting their function, alternative CE solutions must be examined. Through key informant interviews with makerspace coordinators, this work identifies existing barriers to, and investigates potential avenues toward makerspaces as circular entities.

Navigating international recruitment in early learning and child care in Canada: a mobility justice approach

Yolande Pottie-Sherman, Memorial University

The 2021 Canada-Wide Early Learning and Childcare Agreement aims to provide “high-quality, affordable, flexible, and inclusive early learning and child care” to all children “no matter where they live.” Achieving this critical post-pandemic commitment to children's wellbeing depends on expanding Canada's early childhood educator (ECE) workforce, a challenging task due to the low wages and poor working conditions of this highly feminized sector. While the recruitment of internationally-trained ECEs represents one approach to workforce development, advocates warn that this approach could jeopardize local workers' pursuit of fair compensation and sustainable working conditions. It is also unclear what protections and supports these workers will be afforded once they are in Canada. In this presentation, I approach these questions from the perspective of Newfoundland and Labrador, which has among the lowest child care coverage rates in Canada, and where the provincial government is actively recruiting ECEs from overseas. Through interviews with ECEs and other key informants, this presentation applies a mobility justice lens (Sheller 2018) to: 1) compare how different provinces and territories have used Canada's immigration system to meet the rising demand for child care since 2021; and 2) explore the experiences of ECEs who relocate to NL from other countries. The findings foreground the interconnected barriers that child care workers face when moving across borders (e.g., credential recognition) as well as within the sector (e.g., compensation, occupational mobility), and ultimately, the impact of these barriers on the wellbeing of ECEs and the communities that rely on them.

Immigration by ‘Dragon’s Den?’ An Assessment of International Graduate Entrepreneur Immigration Pathways in Canada

Yolande Pottie-Sherman, Memorial University

Nelson Graham, Wilfrid Laurier University

This presentation investigates recent business immigration programs in Canada aimed at international student entrepreneurs. Since 2015, six Canadian provinces have introduced pathways to permanent residency in their Provincial Nominee Programs for international graduates from local postsecondary institutions who wish to start businesses in their provinces after graduating. These International Graduate Entrepreneur (IGE) programs represent the latest wave in a long string of attempts to use immigration policy as a tool to influence where businesses are formed in Canada and around the world. To date, however, little is known about their results: are the IGE programs meeting their objectives? To answer this question, we draw primarily on government documents and program data gathered through access to information/freedom of information requests. We find that most of the IGE streams are empty vessels which receive very few applications, resulting in even fewer successful nominations for permanent residency. This finding is surprising given the high concentration of international students in business and entrepreneurship training programs and the many examples of international student-founded start-ups in Canada. We hypothesize reasons for these policy failures, highlighting that the IGE streams are among the riskiest pathways to permanent residency of all the economic immigration streams open to international students after graduation. Ultimately, we argue that their poor performance underscores broader problems in Canadian immigration policy, namely, its growing emphasis on temporary to permanent pathways.

Niagara-on-the-Lake human-coyote interaction: towards coexistence through community

Bethany Helaine Poltl, Brent Doberstein & Michelle Anagnostou, University of Waterloo

The loss of greenspace in Niagara-on-the-Lake (NOTL), Ontario, Canada has increased in recent decades to accommodate commercial and residential development, fragmenting coyote habitats and disrupting ecological corridors, forcing them to adapt to urban space and interact more with residents. The objective of this study was to better understand Niagara residents' experiences, knowledge, and feelings about coyotes, to identify ways to reduce negative human-coyote interactions. The research used a mixed methods approach to gauge the opinions of the NOTL population. Methods included: 1. an online survey; 2. semi-structured interviews; 3. using existing coyote sighting databases to create a timeline and map of human-coyote interactions between 2021-2024; 4. ArcGIS spatial analysis to assess habitat fragmentation. The results highlight the complex, evolving relationship between NOTL community members and coyotes. Preliminary analysis shows conflicting attitudes towards coyotes. This, paired with survey data, provides a comprehensive account of coyote awareness in NOTL. Interviews with local coyote experts provided high level interpretation of the factors contributing to human-coyote interaction. A map of human-coyote interactions was generated to illustrate hotspot areas, the implications of such areas and how loss of greenspace affected coyote activity in these areas will be discussed. We conclude that loss of greenspace in NOTL has resulted in an escalation of both human-coyote interactions and concerns of town members. There are several promising approaches to address the problem; coyote education seminars to build public awareness, reconnecting greenspace nodes, updating the NOTL master plan to focus on greenspace preservation, and greenspace restoration in identified areas.

Sex work, HIV/AIDS & trust in health systems: An ethnographic study with sex workers living with HIV/AIDS in Kumasi, Ghana

Miesha Polintan & Elijah Bisung, Queen's University

The global HIV epidemic remains a significant global health challenge, with sex workers disproportionately impacted. Despite significant progress, many sub-Saharan African countries, like Ghana, have fallen behind on the UNAIDS 95-95-95 targets. Successful responses to HIV require accessible testing and treatment for key populations, including sex workers. However, distrust in the health system hinders early testing and engagement, stemming from the discrimination faced by sex workers living with HIV/AIDS (SWLHA) due to the criminalization and stigma surrounding their profession. The unique intersectional experiences of SWLWHA often go underreported, as studies primarily focus on sex work or HIV in isolation. This ethnographic study aims to explore how the intersecting identities and care experiences of SWLWHA influence their (dis)trust in the healthcare system in Kumasi, Ghana. This will be addressed through exploring barriers and facilitators of trust that SWLWHA encounter within the healthcare system and examining factors influencing the uptake of health services and programs among SWLWHA; SWLWHA and key informants from partner clinics/hospitals will be interviewed to illuminate the nuanced barriers to and facilitators of trust to enhance engagement and access to HIV services. From the interviews, data will be thematically analyzed to identify potential avenues for (re)building trust. The research findings will help design and better support relevant programmes for SWLWHA in Kumasi and other similar contexts, serving as a resource to support culturally sensitive and patient-centred care.

Surviving Psychological Harms and Stigmatization in the Carceral Continuum: Fighting for Agency and Identity

Cathee Porter. Independent

While most people might think prison is about containment, physical hardship, and injury, physical harm is not the worst part of incarceration; the impacts of verbal and physical assault are tangible and incidental. It is the psychological torture that is most impactful. The fear of physical harm happening is less stressful than the psychological torture that is the prison experience, which is immersive and all encompassing. The staff use

psychological manipulation, threats, and harm to control prisoners; they are slippery, gaslighting and gossipy. Everything matters, every look, every step, the way one holds their face. Everything you do, engage in or don't, shapes who the staff think you are, who your cohorts think you are, and serves to create a persona that was never yours to begin with. People will be pulled into the duty office because the look on their face seems "threatening" to others. Stories about prisoners are continuously being spun between staff and other prisoners to undermine a person's identity and produce an uneasy and fearful compliance. Many other carceral institutions that I have experienced operate in a similar way, and the dynamics of imprisonment continue to follow you even after release.

Maps to Orality: When Geography and Creative Writing Meet in the University Classroom

Michelle Porter, Memorial University

This presentation will explore how the introduction of story mapping and memory mapping impacted relationships between story and the written word in two creative writing classes: Introduction to Oral Storytelling (undergrad, practice-based class); and Creative Writing: Geographies of Home/lessness (graduate class, multi-genre). I will explore the relationships between Imaginative Geographies, the Métis Visiting Methodology, and story-and-memory mapping as practices that allow students to detach from the written word and explore the unknown terrain of oral storytelling. I will use "Dah Teef," an oral story from Métis elder Maria Campbell's book called *Stories of the Road Allowance People* (a required text for the oral storytelling class) as an axle for this presentation. The university at which I work, Memorial University, had never offered a class focused on oral storytelling before I created this class, nor had creative writers studied geographical theories or approaches. As a result, when I entered these classrooms in January, I had no idea how the students would respond to this introduction of geographical methods into two very different creative classes. While I had hopes for these classes being successful, I did not expect the profound and storied impacts that would result from the use of mapping in combination with visiting and oral storytelling in the university classroom. I want to share this story and discuss what I think worked and why.

Assessing the relationships between protected areas, disturbance, and ecological integrity on Newfoundland's vegetated dune systems

Meghan Power & Carissa Brown, Memorial University of Newfoundland and Labrador

Vegetated sand dune systems are a relatively rare form of coastline on the Island of Newfoundland (NL), but they provide diverse benefits to regional ecology and human landscape use. Despite their importance to coastal biodiversity and inland protection, few vegetated sand dune systems are located within protected areas in NL. Under little to no protection, many of NL's dune systems are vulnerable to anthropogenic disturbances (e.g., dune trampling, all-terrain vehicle use). Boreal vegetated dunes, such as those in Atlantic Canada, are also subject to extensive natural disturbances that result from storm and precipitation events. Current climate change projections point to an increase in these types of events in NL, which, combined with the ongoing anthropogenic disturbance regime, may overwhelm the natural rejuvenation process of dune coastlines. Using a protected areas approach, we characterize the vegetation cover, plant community, and disturbance features on NL's dune systems. Vegetation cover was sparser in unprotected areas, which were also associated with a greater cover of non-endemic plant species. Regardless of protection status, substrate disturbance was also linked with a loss of total vegetation cover across the system. This research provides important empirical findings on the relationship between protected areas status, vegetation cover, plant community, and substrate disturbance on NL's coastal vegetated dunes, highlighting the need for additional land management initiatives to protect these vulnerable landscapes under the effects of human visitation and climate change.

Pathogenic Data Colonialism: New Frontiers, Old Fissures

Carolyn Prouse, Queen's University

In November 2021 genomic scientists in South Africa sequenced a new variant of SARS-CoV-2 – what would become Omicron. Within days of uploading this sequence to genomic sharing platforms, countries in the Global North shut their borders to people and goods flowing to southern African countries, even though Omicron was present throughout the world. And when Big Pharma companies used this data to develop vaccines for COVID-19, the rates they charged were inaccessible to most South Africans. Such contestations over pathogenic data access and benefits sharing – what is commonly called PABS – has most recently become a sticking point at the World Health Organization, holding up pandemic treaty negotiations. In this paper I explore how PABS as it is currently practiced in and by global health governance institutions and corporations has become a form of digital colonialism, whereby digital data created through the work, infrastructure, investment, and material resources of the Global South is taken by companies in the North in a form of extraction mirroring centuries of exploitation. Drawing on political ecologies of health and data, coupled with interviews with scientists and platform developers, I explore how digital colonialism vis-à-vis pathogenic data sharing is complex, based on the goodwill of scientists sharing their work to prevent zoonotic pathogenic spread; built on decades of scientific infrastructure and network building; and mediated by new digital data platforms. Despite these novelties, geopolitical colonial fissures continue to be starkly reproduced through contemporary PABS data governance.

The Impact of Abandoned Properties on Public Health

Keegan Quart, Trent University

For many people, abandoned buildings impose fear of the unknown and can create an eerie sense or feeling. Derelict buildings can pose some major obstacles when deciding to reclaim them. It is important to know the history of the structure and the community it is located in before proceeding forward. Indigenous culture and traditions should be respected and honoured when redeveloping and revitalizing any community space. In some areas, abandoned buildings leach toxins into the environment. Impacts on human health are equally important to note as an abandoned structure can pose threats that can lead to serious harm or even death. Abandoned buildings also have positive impacts. In communities around the world, abandoned hospitals have become temporary housing for migrants or have become home to community and cultural spaces. They have been revitalized into housing and occupied to provide health care.

Crypto labour geographies: the contradictions of pensions, place & populism

Alex Quesnel & Steven Tufts, York University

Abstract: This article argues that cryptocurrencies have a hidden, or “crypto”, labour geography. Workers and their institutions have been under theorized in the literature, despite playing an active role in the production of cryptocurrency. At the same time, examining these crypto-landscapes highlight contradictions in the subdiscipline itself. These puzzles include labour agency in financialized economies; workers’ response to ecological crisis; and the turn towards a politics of populism and identity. Drawing from these contemporary debates in labour geography, we then turn to three issues where workers are producing crypto-landscapes in contradictory ways: pension fund investments in cryptocurrencies; community struggles for dis/investment in crypto-mining and protests over its environmental implications; and populist sentiments of individual workers who feel excluded by the financial system. In sum, we believe these contradictions in cryptocurrency production inform, and are informed by, key debates in labour geography.

Perceptions of flood risk governance and adaptation in Vancouver’s False Creek and Fraser River floodplains

Christopher Randall & Greg Oulahan, Toronto Metropolitan University

The reshaping of Vancouver’s waterfront has transformed designated floodplains into widely acclaimed urban spaces. These sites embody a neoliberal governance arrangement; developers are asked to co-produce the public realm and pay for flood mitigation. With sea level rise and acute development pressures set to remake

public space once again, the City of Vancouver's 'values-based' coastal adaptation planning risks being enveloped by coercive market forces. This study seeks to understand how users of False Creek and Fraser River waterfronts perceive flood risk governance arrangements and adaptation planning. Perceptions are contextualized by the historical production and governance of flood risk under evolving political economic systems. In-person qualitative interviews (n=60) with people pursuing environmental rewards in four waterfront locations reveal insights into the integration of non-environmental and environmental risks with values they ascribe to urban waterfront space. The study finds participants are significantly concerned about flood hazards and acknowledge risk is embedded within multiple socio-economic and environmental crises facing the city. Participants favour shared adaptation responsibility among multiple actors and are critical of governments offloading risk reduction responsibility to the private sector and residents. The findings contribute to flood risk governance and natural hazards literature and can inform climate adaptation planning along urban waterfronts increasingly constrained by neoliberal flood management.

Are they really sedentary all the time? A critical account of children's sedentary behavior using a mixed methods approach

Apoorva Rathod, Concordia University

The study of sedentary behavior (SB) has been drawing increased attention in research, due to its associations with unfavorable health markers. There is mounting evidence that SB may be habituated in childhood, leading to concern about children's SBs, with various individualized recommendations focused on reducing children's SB such as limiting screen time. Generally, SB is studied using objective measurement to calculate the total time spent being sedentary, or subjective measurement estimating the time spent in different sedentary activities. The former does not give an indication of the actual activities being performed or their context, while the latter is considered inaccurate. This study used mixed methods combining objective measurement with observations to study SB among 6– 12-year-olds to overcome these methodological limitations. Expectedly, a mixed-methods approach was useful in accurately determining which activities were most sedentary, and their social and physical context. Crucially, it also highlighted several insights about the study and performance of children's SB. First, some activities considered sedentary such as screen time were not always performed in a sedentary manner by the children. Second, children were encouraged to stop being active and instead be sedentary during other activities such as homework. Finally, most of the activities performed were not a matter of choice but embedded in children's and their family's everyday routines. These insights raise critical questions about how we study and define SB, and how SB needs to be understood as part of larger social practices instead of individualised behavioral choices.

To share or not to share: gendered experiences of rickshaw and jeepney mobilities in Delhi and Manila

Apoorva Rathod, Concordia University

Various cities in the Global South rely on paratransit services to complement public transport. These services are often informal and unregulated, and not only are they rarely included in policy, but are also under researched in mobility studies. However, paratransit journeys are crucial for the mobilities of many marginalized users who have no access to personal vehicles. This paper uses a gender lens to study daily journeys undertaken near mega transit stations using rickshaws in Delhi and jeepneys in Manila. Passengers who use these modes acknowledge their low cost and convenience, but struggle with the temporal and bodily constraints placed on them. These journeys are often long, slow, and in shared vehicles operating in heavily polluted areas. Moreover, the spaces inside the vehicle are small and crowded, and often socio-culturally uncomfortable due to being shared with those who identify with other genders. In Delhi, depending on the time of day and convenience, many prefer to wait for a private ride to avoid having to share rickshaws, or even go to the extent of modifying their working hours or place of work. In Manila, zone divisions restricting private paratransit services such as pedicabs near some mega transit hubs seem limiting to many, who instead resort to using ridesharing services like Grab taxis that add considerably to their daily budget. These

negotiation tactics reveal how paratransit services need to be more gender sensitive, and how it is necessary to include them in policy and decision-making to help achieve more equitable mobilities in Southern cities.

**“We found that there were very few resources for us, so we decided to create one ourselves”:
Building community through entrepreneurship in Moncton, New Brunswick**

Apoorva Rathod, Concordia University

Greater Moncton, New Brunswick, is home to more than 150,000 residents, and is also considered one of the fastest growing urban regions in Canada, with a growth rate of 5.4%. Along with this growth have come various challenges related to housing, infrastructure, economic opportunities, and essential services. Additionally, a lack of social support and networks make these challenges seem insurmountable for a large sector of the incoming population. Against this context, I discuss a not-for-profit organization called Moncton Cares©, that seeks to provide soft skills training and opportunities for networking and socialization for the residents of Greater Moncton. Founded by newcomers to the city who themselves struggled during their early years, the organization is an example of the entrepreneurial spirit shown by many newcomers to the city. It fosters partnerships and opportunities for interaction between longtime and new residents. It is also highly dependent on volunteers, donations, and government support for its day-to-day management and operations. While the organization’s mandate and achievements are commendable, the precarity of its status and dependence on external resources make this model challenging to sustain. I discuss several questions related to growth and development in small and mid-sized cities raised by this case: in areas lacking resources to support incoming populations, whose responsibility is it to ensure that the city caters to the needs of all; do incoming populations represent a burden or opportunity; and are organizational models built on personal vision and entrepreneurship sustainable and replicable in defining the futures of regions and their populations?

The World Urban Forum: Mechanics and dynamics of policy mobility and the production of norms at an international urban conference

Hannah Rebentisch & Sarah Moser, McGill University

This article studies the way in which global urban conferences like the UN’s World Urban Forum (WUF) function as key nodes in the circulation of urban policy and the production of norms. As speculative urban megadevelopments proliferate around the globe, frequently with the support of prestigious architecture and technology firms, a small but growing body of research has focused on the context under which these projects are produced – not only the intentions of state actors, but how these ideas circulate and are legitimized, and where connections between various actors are made. Following fieldwork at the WUF, this paper establishes how the conference connects elite actors from international planning and architecture firms, with civil servants and government officials from ‘ordinary cities’ in the ‘global majority’ locales of the Global South. We find that the WUF functions as a venue catering to the global aspirations of economically ‘peripheral’ settings, and is a key site for the production of policy, norms, and imaginaries relating to urban development, models, and economic strategy. We investigate the mechanics by which these are mobilized and propose that despite the WUF’s inclusive and diverse participation, the mobilization of ideas nonetheless reflects dynamics of elitism, globalization and inter-urban competition, and economic speculation.

Race, Reconciliation, and Moving towards Right-Relations in Malvern, Toronto

Justin Rhoden, University of Toronto

The Truth and Reconciliation Commission (TRC) outlines that Indigenous reconciliation is important for rebuilding nation-to-nation treaty relationships, and that all Canadians play an important role in moving us towards respectful relationality (TRC, 2015). Towards these ends, my graduate thesis research explores the intersections of Blackness and Indigenous Reconciliation in Malvern, a highly racialized immigrant community in east Toronto to consider tensions, challenges, and opportunities in nurturing respectful

people-people, people-land relationship at varying scales. In doing so, I consider the ways in which Black residents understand and embody obligations to each other, the land, its Indigenous histories and its Indigenous rights holders. As a community worker and a student-researcher in Malvern, I reflect on various forms of radical hope rooted in residents' (as well as my own) everyday labour of belonging to Malvern and the infrastructures that enable and suppress its transformative possibility.

Nishnaabeg expressions of mino biimadisiwin for health, healing and self-determination

Chantelle Richmond, Western University

Across the vastness of our ancestral territory and beyond, Biigtigong Nishnaabeg have gathered to demonstrate our accountabilities to the wider set of relationships that make us whole and well. In the past forty years, Biigtigong Nishnaabeg have engaged on an incredible pathway of hope and healing, through which we aim to restore our original cultural practices and the gifts of knowledge, belonging and wellness that are anchored therein. This presentation will draw from two chapters of the forthcoming book "Because this land is who we are: Indigenous practices of environmental repossession," to discuss how Biigtigong Nishnaabeg is re-establishing its gathering practices to reconnect with the lands, people and knowledges that grow from our traditional territory. We draw from the concept of environmental repossession to describe the social, cultural, and political practices Biigtigong Nishnaabeg is engaging in to support wellness, healing, and community belonging. These efforts are narrated through the lens of connection; gathering on and the land and returning to our original places, and reconnecting our social relations and practices with one another. Engaging in our gathering practices is fundamentally about living and being in mino bimaadisiwin, and demonstrating our capabilities to create spaces that offer healing and belonging and support our own self-determined futures as Nishnaabeg – on the lands and waters, inside and outside of our territory, and in many other new places we find ourselves.

Vancouver's Urban Image and Jacques Rancière: Democracy and the 2010 Winter Olympics

Jacob Roberts, York University

My research examines how the discursive framing of the Vancouver Olympics contributes to a spatial order (i.e. evacuation of the political), explored through a theoretical framework informed by Jacques Rancière's political philosophy. The bidding stage and preparations of the games are explored to investigate how discourses of the urban image of Vancouver served to weaken democracy in the city. Existing literature on the 2010 games has identified post-political features such as debt creation, construction of the Olympic village, and social-sustainability rhetoric. A case study of the Olympics employing Rancière's aesthetic approach to politics invites a radical emancipatory method to critically assess democracy and equality, filling in a gap of the post-political literature. For Rancière (1999), politics is the outcome of the police and the political, whereas the "police" is a logic distributing and spatially ordering citizenships in society. The "political" is a challenge to the social spatial order to assert a state of citizenship free of hierarchies and to reverify equality (Rancière, 1999). Rancière aims at "transforming a given place into a space for the verification and enactment of equality" (Dikeç, 2012, p. 674). Interviews with Olympic volunteers, protestors, city councillors, and organizing committee have framed the games through themes of surrendering to the Olympic event, and aestheticization of particular urban landscapes of Vancouver. In these interviews, the themes have exposed a Rancièrian spatial ordering, as certain assigned positions and hierarchies of society become assumed and naturalized (thereby denying equality, as certain identities and groups are counted, and others are excluded).

Lessons to learn from? Making the Ontario Craft Beer Market

Kevin Roy & Harald Bathelt, University of Toronto

The cannabis and craft beer markets share similarities in that they are markets for (partly) recreational (food/drink) consumption products that were eagerly anticipated by some consumers, but which face(d) hurdles in terms of government regulation and distribution options, among others. Our research on craft beer

looks at questions and offers insights that we believe may be valuable in the context of the current cannabis market. We use a case of the Ontario craft beer market to understand market-making activities based on a relational economic geography and market-as-practice framework. Our findings help to explain the growth of the industry in North America in the face of staggering potential competition from much larger incumbent brewers. Further, our case study market developed as an adjacent market where the incumbents had nearly full control over market distribution networks – a yet more challenging environment. Based on interviews with craft brewers, this research investigates the associated market-making processes, institution-building activities, and market-shaping practices on the distribution side. We focus on exploring the knowledge generation and embedded ties with consumers that craft brewers realized through in-person selling and marketing of their products. Our empirical analysis shows how the success of craft brewing was enabled by an already eager market, building personal relations with licensees, dedicated sales representatives with close ties to production, difficulties faced in deepening relationships with licensees, product development through close brewer-licensee relationships, strategic licensee selection and brand ambassadors to increase cultural capital, and building relationships with individual customers to add value to their product.

Social Spatial Networks in Justice and Abolition Podcasts

Razz Routly, Dipto Sarkar & Sheryl-Ann Simpson, Carleton University

This decade has seen a flourishing of political organizing around the harms of carceral geographies and the possibilities for the abolition of policing and prisons. The organizing networks are increasingly digital and blending online and offline interactions. To better understand these networks, we look at the example of one digital medium, podcasts, to ask what is the character of the network connecting podcasters and their guests. Podcasts are a useful medium because, they are collaborative, long form, and provide greater opportunities for digital agency around the form and location of broadcast. These characteristics provide a stronger sense of the networks that come together to produce and share the ideas as compared to other digital media like social media. We analyze data from twenty podcasts focused on topics including abolition, restorative justice, disability justice, histories of policing, and colonialism. There are approximately 1,400 nodes in the network representing each podcast and all their guests. We measure the strength of the network, diversity of the network in terms of the types and of guests, location including the distances between guests and hosts and the difference in place types. The network consists of many disconnected components, highlighting that there are only a few guests common across the different podcasts. Further, the disconnected components are either very local or spread across a large region showing that there are different themes and audiences the podcasts are trying to capture.

Mapping wildland fire hazard with logistic and linear regression methods and analytic hierarchy process for Ontario's managed boreal forest

Saeideh Sahebivayghan, Mojgan Jadidi & Tarmo K. Rimmel, York University

The boreal forest is a natural resource and a crucial component of the Earth's ecosystem that is cyclically altered by wildland fires. From 2002 to 2016, the average annual burned area globally and within boreal North America were 422.0 and 2.5 Mha-yr⁻¹ respectively. Anticipated climate warming is expected to increase ignition probabilities, increase the frequency of wildfires, the area affected, and their severity. Given the significant environmental, social, and economic consequences of wildland fires, mapping wildland fire hazard is crucial and helpful in identifying fire-prone regions to facilitate effective forest resource management and risk reduction. We implement logistic regression, multivariate linear regression, and the analytic hierarchy process (AHP) methods for mapping wildland fire hazard for the predominantly boreal Managed Forest (MF) Ontario area. Results shows that terrain (characterized by a digital elevation model) is the most critical factor for determining fire occurrence, followed by land surface temperature, and distance from roads. Decreasing the distance from roads leads to increasing the fire occurrence. Moreover, based on the number of fires that occurred in the study area, where wildland fire hazard is high, the optimized multivariate linear regression was

found to be the most efficient model for generating wildland fire hazard maps because of the high correspondence between actual fire occurrence and the prediction of fire hazard by this method.

Worked to Death: The Historical Production of Lethal Spaces in Ontario's Mining Industry

John Sandlos, Memorial University

Mining is one of the few industries where workers create the space in which they toil. And yet, mining “worksapces” have typically been sites of extreme danger, with miners dying from explosions, rock falls, vehicle accidents, collapsing tunnels, and the slower (but no less insidious) impacts of industrial disease. Historical accounts of mining accidents have tended to focus on the spectacular methane gas explosions in coal mines, but this paper will instead analyze the smaller-scale accidents in Ontario's hard rock mines between 1892 and 1971. Using records from the Ontario Archives and the Ontario Department of Mines, the paper analyzes the issue of who was culpable for these incidents, highlighting the constant and complex tug-of-war between labour and management over production versus safety in the inherently risky environment of underground mines. Combining a narrative and data-driven approach, the paper highlights the tendency of mine managers to avoid any discussion of systemic safety issues, dismissing accidents as a product of worker carelessness or, failing that, an unavoidable cost of working underground. The paper also argues that a large percentage of Ontario's accidents occurred, as environmental historian Thomas Andrews has suggested, due to the interaction of nature and technology in the underground environment.

The emergence of counter-cartographies of conservation in Mo'orea, French Polynesia: refusal to systematic separation of living

Emilie Schmitter, Univ Brest, CNRS, LETG – UMR 6554, Plouzané, France

Quesnot Teriitutea, Univ Brest, CNRS, LETG – UMR 6554, Plouzané, France; Institut Universitaire de France, Paris, France

Marine protected areas are in place in the lagoon of Mo'orea (French Polynesia) since 2004. These tools are part of the Western tradition of spatial planning and aim to preserve fishery resources, which are under threat from both climatic changes and human coastal development. The policies of the neo-colonial administration mainly focus on environmental aspects, breaking with key cultural specificities inherent in Polynesian societies, such as the triple continuum of Land-Sea, Human-non-Human and Nature-Culture. Our exploratory research aims to empower the island's fishers by giving them a voice, using methodologies such as mental maps and life stories to document their ecological knowledge and their struggles against neo-colonial conservation measures. By highlighting local perspectives and knowledge, this study aims to promote the protection of ecosystems as a whole, based on traditional knowledge, while responding to the current challenges facing biodiversity in a context of global change. Since maps inherited from European representations fail to capture the complexity of terrestrial and lagoon areas, we explore how cartographic tools reflect, or fail to reflect the islanders' spatial knowledge. Our analysis focuses on the physical markers structuring the practice of lagoon fisheries and their symbolic representation in cartography. It highlights that maps have a limited capacity to reflect certain characteristics inherent in spatial representations (of the territory); they are merely a graphical translation medium. These initial results have prompted us to explore new methodologies for integrating more complete and accurate representations of local knowledge into cartography that we will present in this communication.

Transcending the Global: Intersectional Challenges and Empowerment of Black LGBTQ Communities in Montreal

Darius Scott, McGill University

Intersectional approaches have long been valued in the study of health inequities. However, intersectionality is often defined exclusively through "universal" identity traits, such as race, gender, and sexuality. This presentation underscores the necessity of valuing local aspects of intersectional identities to develop inclusive,

empowering interventions. Presented insights draw from the groundwork of an ongoing study on the challenges and support mechanisms for Black LGBTQ individuals in Montreal, Quebec. Data were collected through semi-structured interviews with key informants—including care providers and advocates—and analysed using thematic analysis to discern emergent patterns related to both adversities and potential strategies. Informants reported significant provincial barriers, such as insecurity concerning residency status, barriers to accessing social and legal services, and challenges in expressing gender and sexual diversity due to provincial linguistic norms. These local challenges amplified and constrained the mitigation of conventional global intersectional factors. Conversely, informants also highlighted the strategic potency of transcendental practices such as arts, dance, and reiki, which facilitate personal healing and community solidarity. Moreover, they detailed the importance of fostering political awareness that connects global inequities to local political challenges, such as Quebec’s immigration and language laws. By focusing on both the barriers and strategies employed by Black LGBTQ communities in Montreal, the presentation will propose an emerging model for holistic well-being interventions that leverages unique intersectional experiences within specific socio-spatial contexts. This work invites collaboration and further research into localized intersectional health strategies.

Tradiovation towards antifragility at the rural urban fringe of small and midsized cities

Donna Senese, University of British Columbia

Traditional knowledge has been tapped as a source of creative innovation to address the challenges, vulnerabilities and stressors brought on by change, and to promote antifragility or the possibilities of positive adaptation to change (Chiffi and Curci, 2024). In particular, small and midsized cities have become vulnerable to the stressors of climate change in the transitional space of the rural urban fringe where the conflicting demands for agriculture, tourism, recreation and housing are concentrated. Small and midsized cities have also increasingly experienced climate change hazards and disasters at the rural urban fringe where interface fire, land and water degradation and extreme weather events have challenged the sustainability of livelihoods and communities. While innovation and tradition have largely existed as opposing forces, this research asks if the use of tradiovation to reimagine adaptation to the stressors of change is effective in the rural urban fringe of small and midsized cities. This research presents a case study of the small and midsized cities of the Okanagan Valley in British Columbia and combines an archival search of early settler history from the Okanagan Heritage Museum Archives and the UBC Okanagan Special Collections Private Archive with personal interviews on change, hazard and adaptation with present day farmers, tourism operators and land developers. The results indicate a liberal use of various kinds of tradiovation, both settler and indigenous, dependent on sector and city size, and posits a hopeful geography of antifragility despite evidence of increasing risk, vulnerability and the intensity of stressors.

Housing Challenges and Social Resilience of International Students in Small-Sized Canadian Cities: A Case Study of Racialized International Students’ Experiences in Greater Sudbury

Sohail Shahidnia & Sutama Ghosh, Toronto Metropolitan University

Given its aging population and associated labor shortages, Greater Sudbury, a small-sized city in northeastern Ontario has adopted the Diversity Plan (2005), participated in the Rural and Northern Immigration Pilot Project (2015), and encouraged “anchor institutions”, i.e., universities/colleges, to attract international students worldwide. As a result of such policies, the proportion of international students has not only doubled but also rapidly altered the social geography of this racially homogenous municipality. This paper draws on a mixed-method study that compared the migration pathways, settlement challenges, and social resilience of thirty-six international students (twenty-five anglophone and eleven French-speaking) in Greater Sudbury before and during the COVID-19 pandemic. In this presentation, we specifically focus on the housing-related challenges of twenty-five anglophone participants. The study found that even before the pandemic, most students were in “core housing need” – i.e., living in unaffordable apartments, insect-infested basements, and overcrowded conditions. The housing challenges of most students were further exacerbated during the pandemic, affecting other aspects of their everyday lives, including learning, employment, food security, and physical and mental health. With little institutional and community support, some of them had to

leave Greater Sudbury and seek temporary shelter with relatives and friends in the Greater Toronto Area or Montreal.

Leveraging Google Trends for the reduction of lupus-related health disparities in Canada

Emily Shantz & Susan J. Elliott, University of Waterloo

Christine Sperling, Patient partner

May Y. Choi, University of Calgary

Systemic lupus erythematosus (SLE) is a chronic autoimmune condition that is uniquely gendered, racialized, invisible, idiosyncratic and episodic. SLE impacts 1 in 2000 Canadians, with significant disparities in clinical outcomes, the development of co-morbidities, and quality of life. These disparities are further underscored by a lack of public education and awareness about SLE, leading to delays in diagnosis and critical care. Recently, Google Trends has materialized as an innovative tool for assessing public knowledge and information needs related to a variety of public health issues. In line with these emergent methodologies, this study takes a health geographical approach to exploring spatial and temporal trends in information-seeking behaviours and associated knowledge gaps related to SLE in Canada. Using Google Trends, search volumes, associated topics and queries will be collected from 2004-present. This data will be analyzed spatially using GIS to uncover whether differences are associated with underlying sociodemographic or health inequities. In tandem, we will undertake an integrated knowledge translation approach (iKT) in which knowledge users are involved as equal partners throughout the research process. Research results will be shared and triangulated with the knowledge needs of advocacy organizations, and the realities of lived SLE experience, through a deliberative dialogue with key stakeholders from across Canada. This research and deliberative dialogue will set a foundation for the design and implementation of relevant interventions to effectively reduce SLE-related health disparities and improve SLE-related quality of life nationwide.

Powering Communities: A Review of Participation and Equity within Halifax's Solar Energy Transition

Myah Shantz & Chad Walker, Dalhousie University

Solar energy technology has grown rapidly worldwide, however in the context of the need for a 'just transition', recent research has revealed problems. This includes stark disparities in adoption across communities and sociodemographic groups (Sovacool et al, 2022). While solar financing programs have aimed to mitigate financial barriers, there is a gap in understanding how these initiatives impact (in)equity in solar deployment, especially in Canada (Min & Lee, 2024)). Our study takes place in Halifax, Nova Scotia, and focuses on the municipality's flagship solar financing program for homeowners and other groups, Solar City. We utilize a mixed methods approach to assess measures of participation and equity within Halifax's growing solar energy transition. After using aerial imagery to locate a sample of solar installations (n=1354?), we collected household survey data which was compared against sociodemographic characteristics from Statistics Canada. Quantitative comparative analysis centered around variables such as; age, gender, education, and income. We also perform qualitative analysis, which is focused on the experiences of, and barriers to, adopting solar energy in Halifax. Our policy recommendations are curated based on a combination of survey responses and qualitative data (including interviews) conducted with solar adopters. Our hope is that this research helps to identify where Halifax stands as it relates to equity in solar energy adoption and inform a discussion around the right pathways towards a just energy transition.

Cycling as a Mobility Option for "People Who Are Not Necessarily Cyclists": Strategies and Politics of Promoting Cycling in Vancouver

Negin Shooraj, Simon Fraser University

Advocates argue that cycling is a solution to improve sustainability and community well-being. This paper critically investigates strategies, policies, and challenges for promoting cycling in Vancouver, BC, where reallocating road space to bicycle-only lanes is still a sensitive political issue. By focusing on the mobilities,

public space, and critical cycling literatures, by conducting qualitative Interviews with those involved in bike infrastructure advocacy, planning, and policy-making, and by engaging in document analysis, I address these research questions: Who are the main actors promoting cycling? How are sustainability and liveability understood with cycling among Vancouver's cycling advocates and decision-makers? What strategies are being implemented to promote cycling? How has cycling become a political object of struggle? Preliminary results suggest that the City of Vancouver, TransLink (regional transit authority), and HUB Cycling (local advocacy organization) are the primary stakeholders in promoting cycling in Vancouver. The research also confirms that bikes can contribute to a more sustainable and livable city due to being an affordable transportation option and providing social interactions in public spaces. Protected bike lanes, rapid implementation strategies, cycling storage, public transit integration, and educational initiatives have been implemented in Vancouver and proponents argue that they are effective in promoting cycling. Drivers, transportation engineers, businesses, and politicians may be resistant to cycling improvement in Vancouver, nonetheless. In conclusion, while advocates and city staff generally are in favor of cycling, other interests including the majority of city councillors are skeptical, and the debate over cycling is likely to continue in the future.

Biodiversity from outer space? Earth observation satellites and conservation by algorithm

Jennifer Silver, University of Guelph

This paper is about Earth Observation (EO) satellites and visions for EO in the future of enumerating, monitoring, and making decisions about biodiversity. It weaves together some moments in the history of a series of EO satellites designed in Canada, and built, launched, and operated over several decades through various public-private contracts and agreements. Records show that the program, named 'Radarsat', was conceived of in the late 1970s; that the first satellite in the series was launched in 1995; that a Federal Act remote sensing licensing Act was written and passed in 2005; and, that public funding invested by numerous different governments of the day has been critical to Radarsat design, construction, and mission control. Questions about EO and biodiversity emerge with understanding of Radarsat and considering that private sector companies in the business of environmental analytics, some with their own EO satellites, are now proliferating. To push our imagination of EO in conservation further, a selection of three visual illustrations (two from the scientific literature and one from the private sector) that depict applications for EO satellites in conservation science will be introduced. Each illustration conveys EO as highly promising and situates EO satellites within broader networks of data collection, analysis, and interpretation. Details about what W.M. Adams' 'conservation by algorithm' (2018, 2019) might look like emerge, as do ideas about what may be subject to governance processes and/or may need to be held accountable for conservation outcomes under such a socio-technical regime.

A quick-scoping portrait of heat island and green infrastructure vulnerabilities and opportunities for the City of Waterloo

Gagandeep Singh & Peter J. Crank, University of Waterloo

A primary challenge to sustainable cities is the impact of urbanization on the local atmosphere. The surface urban heat island (sUHI) depicts the impact of anthropogenic infrastructure (e.g., asphalt, brick, concrete pavements, and buildings) on the land surface temperature of a City and compares the urban area to surrounding rural areas. The infrastructural density of cities influences the sUHI and has implications for the heat exposure of residents and the cooling demand for buildings during the warm season. This impact has become particularly prescient in Canada after the 2021 BC Heat Dome, which exacerbated the increasing need to address changing urban-atmospheric interactions. The prevalence of extreme heat in Canadian cities, and their increasing frequency demands solutions as the challenge of UHI worsens. The City of Waterloo (Ontario, Canada) is working to find ways to increase community greening while simultaneously address the sUHI of Waterloo. This research looks at the spatial and temporal surface urban heat island of Waterloo, identifying the intensity of the sUHI for summer and winter seasons from recent decades, where land surface

changes have resulted in an intensifying sUHI over time. The sUHI is then paired with remotely sensed vegetation data of the City to explore the impact of urban green spaces on sUHI. This analysis then identifies potential areas of high impact that community greening interventions by the City may be most effective. The results are then used in collaboration with the City to direct municipal resources to improve the sUHI and support community greening efforts.

Balancing Tradition and Conservation: A Mi'kmaq Forester's Vision for Indigenous-Led Conservation Areas in Newfoundland

Francis Skeard & Justin Hodge

As a classically educated and experienced forester (UNB BScF 1991) with deep connection to the land as a Mi'kmaq person, I have always struggled to find balance with natural resource management. While I never did connect with many concepts at UNB, Adaptive Ecosystem Management and the concept of "Gaia" were some that I did. As many of the provincial governments, who currently hold illegitimate title to much of the land and water we as Mi'kmaq have coexisted with since time immemorial. We see the land - water - air as an entity

upon itself that we are duty bound to protect. Here in Newfoundland, the latest attempt at conservation are ecological reserves that are being proposed without any consideration to co-ownership - management - traditional use by local indigenous people, the Mi'kmaq. Bold steps are needed to build bridges with indigenous peoples in Newfoundland. The start of these bold steps are to redesignate all current protected and conservation areas as IPCA with the local indigenous people, the Mi'kmaq, being equals with government. To build the needed trust, the local indigenous people, the Mi'kmaq, to have the only veto on management decisions.

Left behind places': the evolution of the concept and its application to the Canadian regional development context.

Morgan Sleeth & Sebastien Breau, McGill University

Over the past few years, the concept of 'left-behind places' (LBPs) has gained increased popularity among scholars and received a great deal of political attention. LBPs are generally defined as places that are experiencing economic stagnation and decline, typically reflected in post-industrial regions and rural areas. Although LBPs are increasingly researched within urban and regional studies in the UK and other European countries, research on LBPs in the Canadian context is limited. There are few studies that specifically discuss how LBPs are defined in Canada, and much less than attempt to empirically assess where these are located across the country. This paper explores the evolution of the concept of LBPs through an extensive literature review, as well as explores its application to Canada. To do so, the paper employs Statistics Canada's 2021 Canadian Index of Multiple Deprivation (CIMD) dataset as a proxy for identifying and mapping out LBPs across the country. The index comprises of four dimensions: residential instability, economic dependency, ethno-cultural composition, and situational vulnerability. The spatial dynamics of LBPs across Canada are examined at the census subdivision (CSD) level by using local indicators of spatial association (LISA) statistics. All four deprivation dimensions are analyzed individually, along with a composite score of deprivation. The analysis concludes that there is high clustering of CSDs with high levels of deprivation in rural, northern, and remote areas of Canada, as well as high clustering of CSDs with high levels of economic dependency in and around major Canadian cities.

Medicine Hat Urban Tree Project

Brent Smith, Medicine Hat College

The urban forest provides important ecological goods and services for the city of Medicine Hat Alberta, located within the drought-prone area known as Palliser's Triangle. The goals of this research were to understand: where urban and riparian forests occur; their ecology; and their structural characteristics. Tree/shrub cover was quantified using LiDAR first-return data provided by the city of Medicine Hat. Canopy

height models were generated and initially classified into 3 categories: shrub (< 5 m), short tree (5 to 10 m) and tall trees (> 10 m). Circa 2013, Medicine Hat has 520 ha of total tree/shrub cover, comprised of: 92 ha of tall trees, 146 ha of short trees, and 282 ha of shrubs. The tall tree canopy within the city is unevenly distributed: nearly 75% occurs within the human footprint (and must be irrigated to survive), while 25% is associated with natural systems. Ecological sampling of the riparian system in Medicine Hat suggests there are at least 9 unique tree/shrub communities; their organization can be explained by biophysical and ecological succession. This organization provides insights into future changes of Medicine Hat's urban forest resulting from climate change and corresponding reductions in river flows and soil water. This project has identified key management priorities for the maintenance of the riparian forest and adaptation of the urban forest to future climate change—including the preservation of local biodiversity. Greenhouse production of native trees and shrubs started in 2024, with hundreds of plants provided freely to the public.

Death, Love, and Climate Change: How learning to die well can help us to live well and foster planetary care

Lauren Smith, Royal Roads University

The climate crisis cannot be ignored; headlines about extreme weather, changing climate policies, and record-breaking temperatures are a near daily occurrence. Climate anxiety and eco-grief have raised alarm bells for mental health practitioners. And, for those not dedicated to pro-environmental behaviour (PEB), persistent existential threats within these constant climate communications activate psychosocial defenses that may be pushing these individuals even further from needed environmental action. Yet, what climate scholars and practitioners recognize we need now to identify and implement climate solutions is greater diversity, collaboration, compassion, and care. Negative emotions, particularly those related to our mortality, have driven many (but not all) Western cultures to avoid difficult climate and mortality conversations, feelings, and considerations. I seek to investigate whether those who do engage with these emotions are more resilient in the face of climate crisis communication. Are there ways in which we can learn to live well – and (re)consider community and planetary care – by learning to die well – or at least accepting our mortality? This emerging research involves themes, theories, and questions from existential philosophy, feminist care ethics, affect theory, social psychology, and climate action. Through qualitative interviews and surveys with individuals within and outside of death-positive and climate communities (e.g., death doulas; health care workers; climate activists and deniers), I will measure climate anxiety, death anxiety, PEB and/or intention, end-of-life plans, and feelings of belonging, hope, community, fear, and empathy. Correlational analyses will reveal what emotions and feelings, particularly around mortality, relate to greater PEB and resiliency.

Vanishing Venues: Placing Precarious Labour in Ontario's Live Music Industry

Shulie Smolyanitsky, University of Toronto

This paper explores the role of performance venues within Ontario's live music ecosystem, with particular attention paid towards the increased precarity of small and mid-sized venues, and its impacts on music sector workers. Technological and economic restructuring in the last few decades has shifted revenue capture from recording to live shows, meaning that musical artists, as well as intermediaries like promoters and managers, rely on venues, including bars, clubs, and alternative (or "DIY") spaces, to recoup production and touring costs (Hracs 2012; Zendel 2021). Multiple disruptor events, including notably the Covid-19 pandemic, gentrification, and rising rents pose further challenges for music workers, in terms of accessing vital (and revenue-generating) performance spaces (Silver & Bunce 2023). Recent academic and industry research has sought to understand the broad impacts of Covid-19 on creative workers (Dowd et al. 2022; Nordicity 2020b), as well as to resolve "market dysfunctions" associated with independent and "DIY" venues in Ontario (Nordicity 2020a, Bunce & Silver 2023). However, less attention has been paid to the unique urban dimensions that place venues, and by extension music workers in a state of precarity. Drawing upon survey data representing musical artists, venue owners/operators, and presenters/promoters across Ontario (n=347), I explore how music workers understand venues in their work, particularly in the post-pandemic period. In an era where live music represents a growing proportion of music workers' incomes, the importance of an

up-to-date view on the centrality of place in music life and labour, and possible interventions to make venues socially and economically sustainable, is particularly acute (Bennett & Peterson 2004).

Exploring Citizens' Views about Incorporating Solar Power Plants into Nova Scotia's Rural Landscapes

Emily Snair & Kate Sherren Dalhousie University
Dirk Oudes, Wageningen University & Research

Solar power plants (SPPs) are increasingly being built in Canada as part of the national transition to renewable energy. Because they require larger areas of land typically in rural areas, SPPs can have landscape impacts that concern rural residents and/or the local natural environment. In turn, this type of energy development has caused citizen pushback in some provinces. To better understand why citizen resistance to SPPs occurs, this paper explores rural citizens' views about integrating SPPs into the rural landscapes of Nova Scotia, a province where community pushback has occurred and SPP development is increasing. Employing Q-methodology, 18 rural citizens from Berwick (n = 9), Mahone Bay (n = 6), and New Ross (n = 3) expressed their views by ranking 40 statements related to landscape impacts of SPPs. Subsequent semi-structured interviews revealed feelings toward rural landscape change and knowledge of SPPs. Factor analysis revealed two distinct views: SPPs should either be integrated and embraced or isolated and hidden from rural landscapes where people live, work, or recreate daily. Strong consensus around mitigating harm to local natural environments was also identified. Interview results suggest that the identified views represent two different types of expectations and tolerance for landscape change in rural areas, as well as significant knowledge gaps regarding the actual landscape impacts of SPPs. These insights build upon energy social science research in Canada, reveal a need for public education regarding SPPs, and can inform policy and communication efforts seeking to advance SPP development in Nova Scotia.

Voices from the margins: Exploring the intersection of Black youth mental health and educational environments in Southwestern Ontario

Zakara Stampf, Isaac Luginaah, Godwin Arku, Nassisse Solomon, Erica Lawson, Melanie Katsivo & Isola Aljiferuke, Western University

Discussion surrounding racial issues, immigration, and equity, diversity, and inclusivity (EDI) initiatives and people of colour have been prominent in London, Ontario, as well as across Canada (Bhargava, 2023; Trevithick, 2022; De Guzman, 2022). Southwestern Ontario (SWO), a historically white region, has recently experienced a sharp rise in its Black population (Statistics Canada, 2016). Little is known about these communities and their qualitatively distinct features, especially considering Black youth and their mental health and well-being in various contexts (Fante-Coleman & Jackson-Best, 2020; Hasford, 2016). Canadian Black youth face intersecting forms of marginalization and racism, negatively impacting their interactions in various societal groups due to the profound impact on their mental health (Gajaria et al., 2021; Cénat et al., 2021; Williams et al., 2022). Within an educational context, many examples demonstrate the structural disinvestment and systemic barriers thwarting the success of Black youths' (Bernard & Smith, 2018; George, 2020; Smith et al., 2005). Semi-structured interviews (75) and focus group data (3) will be collected in three SWO counties (London-Middlesex, Chatham-Kent, and Elgin County) targeting Black youth aged 15-25 years old. Building on personal experiences and the unaddressed concerns of many Black youth and their parents, I will unpack the persisting barriers perceived by Black SWO youth in their communities, focusing on mental health and the school environment. By gathering the evidence needed to implement pro-Black initiatives and policy, I am taking steps towards a future where SWO is an equitable living space for everyone, regardless of the color of their skin.

How do we create healthy communities? An exploration of collaboration and action on health equity in place

Keely Stenberg, University of Waterloo

Aspects of place, including physical resources and social attributes, differentially impact population sub-groups and contribute to inequitable health outcomes. Despite ample evidence of the links between place and health, practitioners associated with ‘healthy built environments’ (i.e., planners, public health specialists) still struggle to consistently implement strategies most likely to positively impact health inequities. This is in large part due to existing barriers to normative decision-making, hence recent calls for healthy and place researchers to prioritize implementation science by adopting intersectoral collaboration, considering context, and evaluating interventions. As such, the goal of this work is to assess the way(s) that those involved in creating healthy places to live engage with the principals of implementation science. Specifically, this research uses key informant interviews with public health and planning professionals, and government officials in Ontario to explore how place-based health inequities are being addressed. The results showcase the current health concerns and initiatives that have been created and implemented to address these issues in Canadian communities. The findings underscore the responsibility that professionals have for addressing health inequities experienced by population sub-groups in their respective jurisdictions. This work is concluded by a critical discussion of the obligations imposed on professionals compared to their work in practice. Similarly, professionals’ engagement with the principals of implementation science in pursuit of healthy communities are scrutinized, including the potential for and utilization of collaborations for creating initiatives that support the health equity of local population sub-groups.

Manifestations of religion, politics, and oil-money in emerging Gulf leiscapes: A case study of Kuwait City

Rebecca Stewart, McGill University

Leiscapes, that is, the use of the built environment to foster leisure activities, are considered vital urban features for providing a high quality of life for residents and retaining and attracting economic, human, and creative capital. While there is a great deal of leisure studies scholarship on Western contexts and high-profile cities in Gulf Cooperation Council (GCC) countries such as Dubai, Abu Dhabi, and Doha, leiscapes in ‘ordinary cities’ in the GCC have been largely neglected, despite their proliferation in recent years. This paper examines the broad types of leiscapes that have emerged in the GCC over the past three decades, and focuses on three leiscapes projects in Kuwait City (a national theatre, a national museum complex, and a major city park) as case studies to make two main arguments. First, while recent Gulf leiscapes aim to provide infrastructure for leisure activities, they also advance the state-led goals of shaping a curated past and legitimizing the monarchy. Second, the rhetoric, discourse, and design of Kuwait’s leiscapes reflect national religiopolitical ideological tensions, which is apparent in three leiscapes. These developments in lesser-known cities in the Gulf region demonstrate how the pursuit of global aspirations materialize on the ‘edge’ given the unique local contexts.

Critical Youth Geographies, Northern Research, and Flows of Knowledge Ex/Change

Mark Stoller, Queen's University

This paper applies the concept of Arctic metabolisms to examine flows and frictions in the transmission of intergenerational knowledge in Uqshuqtuuq/Gjoa Haven, Nunavut. Reflecting on a multi-year oral history project with dozens of Inuit youth and Elders, in partnership with the Nattilik Heritage Centre, I examine how traditional knowledge flows have been disrupted by processes of Arctic urbanization and settler colonialism, and how these disruptions – both social and material – are experienced by Uqshuqtuuqmiut youth. The paper further explores the uses of digital recording techniques and participatory film methodologies as means of rerouting knowledge back to younger people and generating opportunities for youth to work closely with Elders. Our project of creating a digital oral history archive for Uqshuqtuuq highlights ways in which historical and geographical knowledge contribute to youth participants’ sense of self, place, and connection to their culture and community. Drawing upon theories of youth resistance research, critical northern geographical scholarship, and urban political ecology, I reflect on intergenerational knowledge transmission and regeneration as metabolic processes that can help strengthen researchers’

understandings of social reproduction across a wider temporal spectrum. In thinking through the obstacles youth experience in seeking to access knowledge of their history and land, and in rooting these in the everyday experiences of young Uqshuqtuuqmiut, our project pushes beyond calls to merely include youth and instead to centre youth perspectives as integral to research design.

Digitalization and the new geography of mining

Keith Storey, Memorial University.

Digitalization involves the use of computerized or digital devices and digitized data to reduce cost, increase productivity and transform business practices. In the mining sector it has the potential to significantly transform direct operations in terms of the locations where work is carried out and by whom. Low- and semi-skilled jobs will be shed at the mine site as work is automated. New higher skill-demanding jobs will be created with the introduction of new technologies, many of which can be performed at locations at a distance from the mine site. Similar impacts will be experienced in the service and supply sector as digitalization affects the supply chain. The mine of the future will likely involve less fly-in/ fly-out (FIFO) to the mine site and more Log-in/Log-out (LIFO) at remote operations centres. Managing these changes to ensure that the financial benefits of increased efficiencies and productivity are not captured by the companies at the expense of others will require a rethinking of the value proposition that mining represents for each of the parties affected. This paper summarizes the potential place effects associated with the digital transformation of mining operations with particular reference to experiences to date in Australia and Canada.

Crise environnementale et hydrique en Haïti : Caractéristiques et propositions

Olof Suire, Université Laval

L'état actuel de l'environnement haïtien est le produit des colonisations, des régimes répressifs successifs et des troubles politiques permanents qui en résultent des problèmes de déforestation, d'érosion des sols et des ressources insuffisantes en eau potable sur toute l'île d'Haïti (Alscher, 2010). Son incidence sur l'accès à l'eau (points de vue quantitatif et qualitatif) est importante. Dans cette présentation, nous exposons dans un premier temps les principaux facteurs ayant à l'aboutissement de la crise environnementale actuelle d'Haïti. Dans un deuxième temps, nous ferons le lien entre cette situation de crise et l'accès à l'eau à l'échelle du bassin versant de la Grande rivière de Jacmel (Haïti), particulièrement en ce qui concerne les femmes et les filles. Et en dernier lieu, nous formulerons quelques propositions qui pourraient aider à freiner la dérive environnementale et faciliter une meilleure gestion qui conduirait à un accès quantitatif et qualitatif de l'eau. Notre exposé se base principalement de données qualitatives de la littérature, d'observation et d'enquête de terrain.

Rum, rope and racism in Nova Scotia's Caribbean trade, 1841: exploring historical geographies of complicity with the 19th century academy.

Robert Summerby-Murray, Saint Mary's University

A mysterious accounting ledger appears to document commercial operations of various traders in Halifax, Nova Scotia, in 1841. With uncertain provenance, the ledger was gifted to the Library and Archives of Saint Mary's University in 2017, having been identified as being from 'Saint Mary's College, Halifax', possibly after being held in a set of family papers in the United States. This paper explores three key themes raised by the ledger. First, the speculative historical geographies of its provenance. The ledger documents connections to the Caribbean shipping trade along the northeastern seaboard of Canada and the United States - but by whom and what is the connection to Saint Mary's College, Halifax? Second, the ledger provides an intriguing snapshot of the historical geographies of key Caribbean products such as rum and rope and highlights the importance of Halifax as a location for the provision of shipping and trade insurance. But is the ledger simply an exercise required of an accounting student at Saint Mary's College, drawing upon a local business operation? Third and most importantly, does this ledger provide a window into what Rosenthal (2021) has

described as the ‘connections and complicity’ of a colonial economy that was drawing its wealth from the slave-based plantations of the Caribbean – and does the ledger implicate present-day Saint Mary’s University in that complicity, even if simply that the early supporters of the university made their money in the Atlantic trade?

Regional Economic Resilience and Post-crisis Growth Paths: The Same Determinants?

Jesse Sutton, Western University

Yawo Kobara, University of Windsor

Godwin Arku, Western University

This study examines the relationship between the determinants of resilience and regional economies’ post-crisis growth paths. To do so, two logistic regressions are employed to examine the factors that influenced Canadian regions’ resilience to the 2008 Great Recession and how these factors influenced their post-crisis growth path. It finds that regions’ post-crisis growth path is positively influenced by their past resilience. Importantly, it finds that not all of the determinants of resilience also influence economies’ post-crisis growth path, with some having an inverse effect. The implication stemming from the results is that policymakers face trade-offs in their economic development efforts.

Youth, labour, and narco-cartel recruitment in Mexico

Kate Swanson, Dalhousie University

Rebecca M. Torres & Caroline Faria, University of Texas, Austin

In the central plazas of Guadalajara, Mexico, thousands of young faces peer back from posters that detail their names, physical descriptions, and last known whereabouts. These are the desaparecidos - the tens of thousands of young men, women, and children who have disappeared without a trace in recent years. Most have gone missing because of organized crime, a pervasive threat in the region. In peripheral communities beyond the gaze of the state, the recruitment and use of children and youth for cartel security, smuggling, drug production and sex work is rife. While much literature has focused on the use and exploitation of children’s labour during armed conflict and war, much less has explored the use and recruitment of children in situations of armed violence, such as by cartels, gangs, and organized crime. This paper will draw from the literature, as well as longstanding research in Mexico, to develop a framework to better understand how children’s use and recruitment is interconnected with narco-cartel economies, forced displacement, state abandonment, and violence.

Conservation policy reform and reconciliation in Canada: An analysis of the Pathway to Canada Target 1 policy process through the policy cycle model

Emmanuel N. Tamufor, David B. Macdonald & Joy Robin Roth, University of Guelph

In this article, we conduct an analysis of the Pathway to Canada Target 1 conservation policy process to determine its level of inclusivity towards Indigenous People and their knowledge systems. Also known simply as the Pathway, the policy focuses on Target 1 of Canada’s efforts to meet Aichi Target 11 of the Convention on Biodiversity by 2020. The study aims to showcase the importance of Indigenous involvement in the policy process as supported by United Nations Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission’s Calls to Action. Knowing why, when, and how Indigenous Peoples were engaged in the policy process helps us to see the role they played in co-producing policy knowledge in the Pathway policy process. This is fundamental in reconciliation and the improvement of conservation policies. After reviewing the history and structure of the pathway, we use the policy cycle, outlining five stages of the policy process, to enable our analysis. Being a western model, the policy cycle does not adequately reflect Indigenous worldviews. Nevertheless, its use reveals the degree of Indigenous engagement in each stage. Results show good practices at early stages of the policy cycle but also reveal that Indigenous involvement was wholly inadequate in latter stages.

Réflexion critique de l'utilisation des images satellitaires à haute résolution pour l'analyse de la répartition spatiale de l'agriculture urbaine au Cameroun

Paul Emile Tchinda, Université du Québec à Montréal

Thi-Thanh-Hien Pham, Université du Québec à Montréal

Dans la plupart des pays africains, l'agriculture urbaine (AU) est confrontée à plusieurs contraintes telles que : l'insécurité foncière, la pollution, l'accès limité aux ressources, et son invisibilisation dans les politiques publiques, etc. Les résultats de l'analyse de l'impact spatial de ces contraintes sur les pratiques agricoles sont mitigés. D'une part, certaines études concluent à une perte des espaces agricoles. Tandis, d'autres études contredisent ce récit pour montrer que l'AU persiste et s'intensifie simultanément à l'évolution de la ville. Pour parvenir à une meilleure compréhension de la répartition spatiale de l'AU, la présente étude combine à la fois la cartographie multi-échelle (la ville, le quartier et le logement) et des entretiens semi-directifs dans deux villes de différentes tailles (grande et moyenne) au Cameroun. Le projet s'inscrit dans le sous-domaine de la télédétection critique, car nous souhaitons mettre en évidence les limites des données collectées à distance (images satellites) pour détecter toutes les formes d'AU. Dans l'ensemble, on observe une variation de la superficie des cultures agricoles de l'ordre de 15% entre le résultat de la classification des images satellites et la cartographie de détail. Les images satellites surestiment considérablement l'AU dans la ville de Yaoundé (grande ville), tandis que dans la ville de Bafoussam (moyenne ville), l'AU est sous-estimée. Les cartes de détail au niveau des logements et les entretiens révèlent l'existence d'autres formes de pratiques agricoles non cartographiable par télédétection. Dans l'ensemble, le projet contribue à enrichir les débats théoriques et les politiques de développement international sur l'AU dans les pays du Sud.

The Relationship between Housing Characteristics and Subjective Well-being among Older Canadians: A Focus on Rural-Urban Residency and Gender

Bavisha Thurairajah, Mylene Riva & Sebastien Breau, McGill University

While most older Canadians prefer to “age in place” in their own homes, not all dwellings meet acceptable housing standards. As a social determinant of health and well-being, housing can affect healthy aging and shape life satisfaction. Evidence suggests that relationships between housing and well-being can differ across the rural-urban continuum and genders. This study examines rural-urban and gender variations in the associations between housing characteristics and subjective well-being. We use cross-sectional, individual-level data from the Canadian Housing Survey (pooled 2018 and 2020 data) for respondents aged ≥ 65 years living across the ten provinces. Associations between housing characteristics and life satisfaction are measured using weighted stratified multivariate logistic models while controlling for socioeconomic variables and health status. Housing conditions include tenure, dwelling type, repairs needed, overall dwelling satisfaction, thermal comfort, affordability, safety, length of residence, and sense of community belonging. Rural-urban residency is defined using the Index of Remoteness measure. Results demonstrate that greater dwelling satisfaction, thermal comfort, and sense of belonging are significantly associated with higher life satisfaction across all sub-samples. However, the association between some housing characteristics and life satisfaction vary across the sub-samples. Feeling safe in the dwelling is significantly associated with higher life satisfaction among urban residents, but not among rural dwellers. Living in a dwelling requiring major repairs is associated with lower life satisfaction among women, but not among men. Our results can inform the targeting of housing initiatives towards specific subgroups to better support the ongoing growth of the diverse older adult population.

Women and Toxic Chemicals in Personal Care and Household Products in Ontario

Adrianna Trifunovski & Caroline Barakat, Ontario Tech University

Many personal care and household products (PCH) contain toxic chemicals, such as additives that are detrimental to health. For instance, parabens are commonly present in shampoos as preservatives. Classified as endocrine disruptors, they heighten the risk of hormonal and reproductive disorders, particularly among women. Despite the existence of safer alternatives, research has highlighted that many women are unaware of these health risks and the availability of safer options. Using a mixed-methods approach, this study examined knowledge, health risk perceptions, beliefs and avoidance behaviour of women in Ontario, in relation to toxic chemicals commonly found in PCH products. This study focused on lead, parabens, bisphenol A (BPA), phthalates, triclosan, and perchloroethylene. Guided by the Health Belief Model, a questionnaire was developed and administered to 200 women. In order to explore factors related to decision making when purchasing PCH products, 10 women participated in virtual interviews. Multivariate analysis found positive associations between lead, parabens, BPA, and phthalates avoidance and knowledge, perceived health risks, and harm beliefs. Respondents with higher education and a chemical sensitivity diagnosis were more likely to avoid lead. Qualitative analysis revealed that factors influencing PCH purchasing included price, social media, effectiveness, and brand preference. Sulphates and fragrances were commonly avoided in personal care products, however no specific ingredients were avoided for household products. Researching products was used as an exposure prevention strategy. This study underscores the necessity for enhancing women's knowledge about the health risks of toxic chemicals found in PCH and the importance of selecting safer alternatives.

Mapping social relationships and land use in Akamiu-Uapishku (Nitassinan/Labrador)

Carolina Tytelman & Damian Castro,, Memorial University

The data related to the relationships between the Innu people and their homeland is heterogeneous and comes from various disciplines and sources. As a colonized indigenous group, it is important for the Innu to organize and protect that information in their own terms. With the assumption that maps are powerful tools to display relationships between information and the actual territory where it comes into being, we worked collaboratively with Innu Parks and created an application capable of dynamically displaying the data on a map. Using the Google Maps Application Programmer Interface, and storing the data in a database, we created an application capable of dynamically displaying archeologic, anthropologic, ethnographic, and ethnohistoric data. The map was presented to the community and the leadership of Innu Parks. In this paper, we analyze the contexts where the map was assessed by community members and situations in which the map could have been/would be useful to support Innu sociopolitical objectives. We also analyze the many ethical and political challenges related to this information: who should have access to this data? Under what circumstances? Where? Who makes these decisions? We analyzed existent best practices models to present, protect, and share the data on the map, in order to inform and support Innu Parks' decisions.

Fugitive Road Dust: Infrastructural Residues and Airborne Particulates of the Alaska Highway

Desiree Valadares, University of British Columbia

In 1964, Bob Erlam, Flo Whyard, and John Scott formed a company that canned dust in Whitehorse, Yukon. The souvenirs labelled "Magic Dust from the Alaska Highway" promised the tantalizing experience of driving the route and were sold to promote the paving of the highway. At the time, only 354 miles of the 1,523-mile road were hard surfaced. Regional interests in the Yukon and northern British Columbia organized a 'Pave-the-Alaska-Highway' campaign to tackle the oppressive dust problem. Canned dust was an attempt to raise awareness through irony and irreverence. The cans, for all their apparent absurdity, are an object of interest. These commodities miniaturize and monetize the regional airspaces and airborne particulates of northwestern Canada. They spur inquiry into dust - a fine, discrete matter with variable composition and mutable form. This knowledge mobilization project argues for dust's significance as compelling material, narrative, and processual substrate of the Alaska Highway. This project dwells on dust as a disruptive tool and imaginative metaphor to unground the Alaska Highway as an infrastructural megaproject. Rather than sweep

dust to the edges, I focus on its fugitivity, mobility and indeterminacy along the bi-national route of the Alaska Highway to understand how dust travels in the Canadian postwar imaginary. Road dust's drifting particulates and its expansive, enveloping spatiality, reveal how abundant particulates produce voluminous forms such as the dust cloud that subsequently blur boundaries between spatial planes and distort experiences of territory across multiple jurisdictions in northern British Columbia, Yukon, and Alaska.

Death in the curriculum: Mortality salience and emotions in post-secondary Interdisciplinary Environmental Education

Gabriela Vieyra-Balboa, Michael-Anne Noble & Sarah E. Wolfe, Royal Roads University

Interdisciplinary Environmental Education (IEE) has been designed to provide students with knowledge, awareness, skills, and motivation for environmental stewardship. Educators are responsible for building their students' action competence to engage in environmental/climate action and effectively solve ecological problems. However, Terror Management Theory (TMT) researchers have found that mortality awareness triggers deep-rooted psychological defenses that may prompt unexpected and unwanted reactions and behaviors running counter to pro-environmental objectives. We aim to understand the interaction between mortality salience reminders (MSR) and emotions in the Canadian post-secondary IEE curriculum. Content analysis of faculty interviews and curricular materials revealed Fear as the prevalent emotion associated with death-thought prompts and an overall negative emotional load within eight courses taught in two post-secondary case studies. Our analysis also indicated that some educators do not intentionally provoke a particular affective climate, while others deliberately instill hope and confidence when addressing environmental issues.

Anticolonial methods in data visualizations for community-centered research questions

Lana Vuleta, Memorial University

At a recent land-based workshop held in Nunatsiavut, community members and researchers from Nunatsiavut and from away defined respectful research as research that prioritizes community connections, collaboration, open-mindedness, trust, and research connections (Pijogge et al., 2024). These tenets are meant to be applied to all aspects of respectful research, and are therefore necessarily relevant to results sharing, which commonly involves data visualizations. Like all forms of communication, data visualizations are influenced by the priorities of those who make them; data visualizations are political and value-based (O'Connor et al., 2023). Guided by feedback from community members on past results sharing, this research considers how our visualization methods change when we align the inherent politics and values of data visualizations towards community priorities. This presentation interrogates the methods involved in the conceptualization of, creation of, and experience of such data visualizations. These questions are considered in preparation for sharing results on the microplastics in snow and sea ice near Nain, Nunatsiavut - a topic examined under the guidance of community members in Nunatsiavut.

The Discursive Production of Critical Minerals: Territorializing Canadian Energy Transitions

Kailey Walker, Queen's University

Drawing on science and technology studies, political ecology, and theories of the coloniality of power, this paper analyzes discursive strategies deployed to legitimize state-led mineral extraction in Canada. In the face of anthropogenic climate change, the federal government advances a strategy for energy transitions which demands the mapping and refinement of so-called 'critical minerals'. The imaginary of green futures constructed in Canada's Critical Mineral Strategy is backed with \$1.5 billion to develop national mineral supply chains in the coming decade. With these investments demanding access to Canada's northern, remote, and Indigenous lands, the state relies on discursive strategies of social licensing to justify extractivism: critical minerals are conflated with national prosperity, reconciliation with Indigenous communities, and the very possibility of sustainable futures. The aim of this paper is to clarify the colonial logics that underpin Canada's critical mineral investments, and emphasize the role of sociotechnical imaginaries for advancing settler

territorialization projects. This is addressed by a critical discourse analysis of Canada's Critical Mineral Strategy and related maps for dominant narratives of green extractivism. I argue that justifications for critical mineral mapping and extraction significantly depend on colonial ontologies which devalue the natural world as Nonlife, raising questions about the Western epistemological frameworks that underpin state-led energy transition. In doing so, critical mineral extraction depends on the ongoing suppression of Indigenous knowledge about Land and Life – while simultaneously demarcating what and who is expendable in the quest for green futures.

Meewasin – placing a national urban park in the Saskatoon region

Ryan Walker, University of Saskatchewan

In August 2021 the federal Minister of Environment and Climate Change Canada, responsible for Parks Canada, launched the National Urban Park Program (NUPP) at the Meewasin Valley Authority headquarters in Saskatoon. Meewasin (Cree for 'it is beautiful') is one of the NUPP's six initial sites from across Canada progressing toward designation as a national urban park (the other sites are at Halifax, Windsor, Winnipeg, Edmonton and Victoria). Meewasin was created in 1979 by provincial statute bringing the Province of Saskatchewan, City of Saskatoon, and University of Saskatchewan together as governing partners to achieve a balance between the conservation of nature and human use. Meewasin is one of the largest urban conservation zones in Canada, encompassing land along 75 kilometres of the South Saskatchewan River. Guided by a 100-year conceptual master plan crafted by Raymond Moriyama in 1978, the Meewasin Valley is the Saskatoon region's most popular public space and iconic natural asset. Guided by concepts of place and its texture; public memory read in landscapes; and the materiality, connectivity, and dialogue brought together through natural and cultural heritage, this presentation examines how the foundational components of the NUPP intersect with Meewasin's *raison d'être*. The next half-century of Meewasin's master plan implementation will be scaled-up in critical ways if federal resources and national partnerships through the NUPP are realized, and if Meewasin continues on its present path of strengthened relationships with local First Nations and Métis peoples.

Reiterate the Neighborhood Effect: The Impact of Neighborhood Environment on Subjective Well-being in the Context of Daily Mobility

Wenwen Wang, Nanjing University

Because of changes in lifestyle and technological improvements, daily mobility has expanded to an unparalleled degree. People's activities, especially leisure activities are expanding outside of their neighborhoods and are no longer confined to their homes. Although the association between neighborhood environment and subjective well-being (SWB) has been discussed in great detail, daily mobility's effect on the relationship between neighborhood and SWB is rarely taken into account. Using survey data from Nanjing, China, this study examines the relationship between subjective well-being (SWB) and neighborhood environment, and the moderating effect of residents' leisure activities outside the neighborhood. In contrast to previous studies, this analysis not only focuses on cognitive well-being but also affective well-being. The results show that the frequency of leisure activities outside the neighborhood moderates the impact of both material and social environment on SWB. Additionally, the moderating effect varies between cognitive and affective well-being. Cognitive well-being may benefit more from neighborhood internal environment factors such as attractiveness and neighborhood cohesion, while affective well-being may rely more on external resource of the neighborhood such as facility convenience. Our results have implications for environmental improvement strategies of neighborhoods to promote SWB.

In the Fullness of Time: A Retrospective of the MOCA Project

Paul Walter, University of Calgary

Often, a project's impact becomes clearer after time has passed. This is true of the "Mapping Our Cities for All" (MOCA) project, a valuable collaboration between the University of Calgary and Access Now which employed 37 individuals to map physical accessibility features across three major cities and seventeen rural

areas in Canada. The project explored the potential of Volunteered Geographic Information (VGI) approaches for focused data collection on physical accessibility and the completeness of Access Now's data for the built environment. Our presentation will discuss the insights and value of these findings and introduce additional perspectives by examining the potential impact of inspector bias based on factors like ability, age, and intersectionality, the value of inclusion, and potential directions for future research. The presentation will help broaden the conversation to include other findings that together can more deeply understand the dimensionality needed for physical accessibility; a contribution that can help contribute to a more inclusive and sustainable society.

A Comparison of Community Resources in the Vicinity of Project Nujio'qonik and Canada's Largest Wind Farms: A GIS Approach

Andrea Wheaton & Camille Oullet-Dallaire, Memorial University of Newfoundland, Grenfell Campus

Large scale natural resource projects often interfere with residents of nearby communities, such as their access to community resources like healthcare services and schools. This will likely be the case for Project Nujio'qonik, a proposed wind farm that will be located on the west coast of Newfoundland. This project purposes nearly double the number of turbines as the current largest wind farm in Canada, and will utilize a large temporary workforce for construction. Using GIS methods, we investigated how population and community resources near Project Nujio'qonik compared to those within the same distances of the three current largest wind farms in Canada. Our results showcase how different Project Nujio'qonik is compared to other large wind farms in Canada. First, the turbine locations themselves differed in terms of distance from the coast and layout. Next, Project Nujio'qonik has a much greater population within 10km of turbines than the other wind farms, while the province it is in has a much smaller population. However, within 100km, Project Nujio'qonik's population is much less than the other wind farms. Finally, Project Nujio'qonik has significantly less community resources within 100km. The combination of these geospatial arrangements raises concerns for local community resources as there is an already greater ratio of people that depend on each community resource location. A large temporary workforce will likely exacerbate any existing issues in terms of access to community resources, such as those caused by staff shortages, including hospital emergency service temporary closures and lack of daycare availabilities.

Embodying HIV/AIDS Adolescent Peer Leadership and Achieving the 95-95-95 Targets in Ghana

Darby Whittaker & Elijah Bisung, Queen's University

Emmanuel Nakua & Ebenezer Dassah, Kwame Nkrumah University of Science and Technology

Dennis Bandoh, Ghana Health Service

Adolescents and young adults between the ages of 15 to 24 are a particular population of concern for HIV intervention. Mitigating high risk sexual practices can reduce the spread of HIV and lower risk of transmission. Integral to HIV management and medication adherence is proper psychosocial support and resources for adolescents and young adults living with HIV. Community adolescent treatment supporters (CATS) work in tandem with healthcare professionals in Kumasi, Ghana to support their HIV positive peers with navigating their diagnoses, adhering to medication, and supporting them through challenges they encounter. To better understand the embodied experiences of CATS in Kumasi, Ghana, as well as how the work of peer leaders contribute to achieving the 95-95-95 targets, we interviewed peer adolescents (n=18) living with HIV, as well as CATS (n=6), and key informants (n=7) working in anti-retroviral clinics in the Kumasi Metropolitan Area. CATS reported primarily positive experiences such as positive character development and satisfaction from the support they provide to their communities, although they also experienced stigmatization and encountered push-back from some parents of their peers. Regarding the 95-95-95 targets, CATS were integral to HIV management amongst adolescents and young adults. They provided education, psychosocial support, and medication reminders to their peers, and also served as role models. Findings from this study demonstrate the importance of peer leadership programming in advancing and maintaining adolescents living with HIV through the HIV care cascade.

Peat: everything you didn't want to know and more!

Peter Whittington, Brandon University

Too wet to be terrestrial uplands and too dry to be considered aquatic ecosystems, peatlands often exist at the edge between them. Globally, peatlands have managed to cover 3% of Earth's surface and store twice as much carbon as all the world's forests combined; Canada is 13% peatland by area which represents ~25% of the world's peatlands by area and the world's largest peatland carbon stock (~150 gigatons). But what is peat? Despite the important role peatlands play in the global carbon cycle, most Canadians probably don't know what peat is or where it comes from. With peat and peatlands (and more importantly, their carbon stores as we race to net-zero by 2050) in the news a lot lately, this talk aims to inform the audience about what peat is, where it is found, how peatlands are disturbed, and how we restore peatlands. We'll also discuss the differences between North American (Canada) and European uses of peat. Ideally, at the end of the talk you'll have enough information to personally answer the question "should I still use peat in my garden?"

Donde Vivimos (Where we live): Understanding the role of housing in health amongst Latinx newcomers in Toronto

Michael Widener, D. Apedaile, M. Castro Arteaga, A. Perez-Brumer & M. Lahaie Luna, University of Toronto - St. George

L. Alberto Carrillos, C. Delia Cruz, D. Morales-Naudon & D. Ramos, Hispanic Development Council

The Latinx population is one of the fastest growing in Canada, with many newcomers from the Americas settling in the Greater Toronto Area (GTA). Upon arriving, members of this community are faced with one of the most unaffordable housing markets in North America, which has downstream impacts on a range of outcomes including health and wellbeing. The Donde Vivimos project is a new community engaged research project focused on disentangling the links between housing and health amongst Latinx newcomers, co-led by researchers at the University of Toronto in Geography and Public Health and leaders of the Hispanic Development Council (HDC), based in North York. Data collection for this project, which took place in Winter 2024 to Summer 2024, included an analysis of Census data, 10 interviews with stakeholders who work with Latinx newcomers in the GTA, 20 interviews with newcomers who arrived in Canada over the last five years, and a survey with modules focused on housing, health, food, migration, and social context. In this presentation, we will highlight: 1) the geographies of Latinx newcomers in Toronto, 2) obstacles these newcomers faced in finding housing after migration, and 3) ways (precarious) housing conditions connect to a range of health outcomes and behaviours, including access to healthcare, the ability to maintain a healthy diet, food security, and mental health. Finally, we will present our collaborative approach to knowledge dissemination, including our strategies for working with HDC to enact positive change for Latinx newcomers seeking housing in the GTA.

Tales from the Avalon

Yolanda Wiersma, Memorial University

Avalon is a mythical island from the medieval legend of King Arthur. Medieval tales are full of magical and supernatural characters, many of which have influenced more contemporary tales in the fantasy and science fiction genres. In this talk, I will tell you some stories from the Avalon Forest here on the island of Newfoundland based on my group's ecological research. These field stories feature Ent-like creatures and Lilliputian communities that collectively tell us about the past and the present, as well as offering insights on processes and patterns across spatial scales.

Trees, Trains, and Public Space: What the garden in Madrid's Atocha station has to tell us

Patricia Burke Wood, York University

In the main hall of Madrid's central train station, Madrid Puerta de Atocha–Almudena Grandes, there is a large garden of plants and tall trees. An unusual feature for a train station, the garden was intentionally

designed to support a public space within the station, both for waiting for trains or passengers and for use in its own right as a space of interaction and leisure. The focus of this presentation will be the relationship between humans, other animals and the trees in the garden, including how the trees offer a temporal complexity to the space of a train station, which is devoted to precise observance of chronometric time. With Barua's (2022) call in mind, for an 'ontology of infrastructure' that is less anthropocentric, I will share some stories of interactions with and within the garden, and offer some considerations of how the relationships in this space speak to multi-species coexistence in cities.

Using Location-Based AR to Explore Ontario's Built Heritage

Ben Woodward & Rob Feick, University of Waterloo

Learning about an area's built heritage can be difficult and time-consuming for non-experts. While both residents and visitors benefit from traditional signage, plaques, and local heritage web sites, built heritage information is often constrained to local historical books or archival records. As such, knowledge of communities' local history and built heritage has long been the domain of a small number of experts and local enthusiasts. This knowledge gap can leave communities' built heritage underappreciated and vulnerable to neglect or demolition, especially in contexts where redevelopment pressures are high. Location-based augmented reality (AR) is a promising technology that has been used effectively in many European countries to provide accessible and engaging means for learning about local history. For this study, we created a web-based augmented reality application, named "Local History AR", using the AR.js library. This application allows users to point their phone at a building to retrieve superimposed information about its history and architectural elements. This provides curated, specific, and pertinent information to the user as they explore local heritage landscapes in situ. Testing of Local History AR will be conducted in four sites in Ontario this summer: Bayfield, Downtown Kitchener, New Hamburg, and the University of Waterloo campus. Surveys embedded in the application will allow us to evaluate whether location-based AR applications like Local History AR are effective heritage teaching tools, and if the degree to which users value built heritage changes after using the app.

Living in the in-between: International student families' liminal experiences of housing, work, and citizenship

Nancy Worth, University of Waterloo

E. Alkim Karaagac, Queen's University

The role of international students in Canadian higher education is contested: students are (in part) welcomed to address labour shortages and domestic higher education funding gaps, yet they are also unfairly blamed for housing affordability and other social challenges in local communities. These discourses are powerful, but often decentre the agency of students, treating the diverse international student cohort as a monolith. Nevertheless, international students must negotiate this public discourse, while also navigating their own path. Our wider project, Making a Home, centres the housing experiences of international graduate students who bring their families to Canada. Yet within stories about housing, our interviews with international students and their families revealed complex interconnections. In this paper, we use the concept of 'liminality' to understand everyday practices, strategies and future plans for housing, work, and citizenship. Liminality is a well-used framework in migration and lifecourse research to capture transitional periods, centering a sense of in-betweenness and ambiguity. Liminality often involves relocation—and in our case involves personal and familial transitions. Drawing on a series of interviews with international students and their families, this paper proposes a relational framing for this period of liminality and offers three vignettes of families' experiences during this time.

Analysis of the formation characteristics and decentralization of post-urban agglomerations from the perspective of spatial reshaping

Runlin Yang, Nanjing University

The formation and development of urban agglomerations in the 20th century received a lot of research from the academic community. However, in the past 20 years, Western countries have begun to weaken their attention and research on it. The main reason is that the spatial form of urban agglomerations formed in the early stages has tended to stabilize from a macro perspective. From a micro perspective, urban agglomerations in developed countries are no longer able to improve overall economic benefits through spatial agglomeration. From the perspective of spatial reshaping, we analyze the reasons why some cities within urban agglomerations have experienced stagnation or even decline in the past 30 years, as well as cases of successful transformation and development of ordinary cities in urban agglomerations, and draw the following conclusions. (1) In the information age, the internal space of urban agglomerations has shifted from central agglomeration to decentralization, and the development of urban agglomerations has entered the post-urban agglomeration period; (2) Entering the 21st century, urban agglomerations are undergoing globalization, informatization and the popularization of AI. Spatial reshaping has occurred in the background, and urban development no longer relies on the overall driving of the urban agglomeration, but on the successful transformation of each city's characteristics; (3) The spatial correlation of factors such as population, industry, and income of cities within the urban agglomeration is weakening trend, especially reflected in the spatial correlation between the population and income growth rates of core cities after 2015; (4) In the process of decentralization, urban agglomerations use scientific and technological means to break through the limitations of physical conditions to develop a diversified economy, allowing individuals of different levels to Cities get bigger markets and choices

Bringing Fossils into the Future: Considering visitor perspectives on virtual tourism inclusions in the nature-based tourism destination of Tumbler Ridge, British Columbia

Yihang Zhang & Zoë A. Meletis, University of Northern British Columbia

Zena Conlin, Tumbler Ridge Museum Foundation;

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Virtual tourism experiences (VTEs) can enhance on site experiences, or comprise all virtual offerings. The literature on VTEs and nature-based destinations is limited. Our study investigated related visitor experiences and perceptions in Tumbler Ridge, BC. This project arose from partner interest in offering contemporary experiences and catering to the needs of visitors and local recreational users (partners: the Tumbler Ridge Museum Foundation, and Tumbler Ridge UNESCO Geopark). Tumbler Ridge has breathtaking landscapes and trails, dinosaur tracks, notable water features, and fossils in situ. It emphasizes geo-tourism, nature-based tourism, and outdoor recreation. Its geography is a major asset but presents accessibility and logistical challenges. VTEs offer opportunities to enhance access and experiences. As such, we investigated visitor perspectives on VTEs. We conducted an in person self-administered survey on travel motivations, activities, and preferences, as well as familiarity with and openness to VTEs. We collected n=384 surveys in June-August, 2021. This paper discusses complex considerations of integrating VTEs into nature-based tourism, based on visitor responses and local constraints. Participants noted VTEs as a way to improve accessibility, but also distanced themselves from accessibility issues. Participants questioned the appropriateness of introducing more technology into a nature-based setting, and raised questions about compromised authenticity. Participants voiced concerns about VTEs being in conflict with or at risk of displacing in-person visits. We highlight response patterns and examples, grounding these in related literatures, and we end with tailored recommendations for Tumbler Ridge, as connected to greater trends.

Adaptive Reuse in Contemporary Heritage Cities: A Tale of Three Churches in Ottawa

Siyi Zhou, Memorial University

While the closure of worship spaces has tended to signal a progression of secularization, which includes the decline of religious worship, recruiting heritage-rich properties for creative urban processes has been an important trend that is increasingly explored by emerging scholars. Clearly, then, all churches that have faced

closure are not ‘dead.’ These buildings engaged in new pathways along their life cycle – pathways that are both increasingly part of the modern urban landscape and shaping the contemporary city. Beyond simply sites of secularization, the trend of repurposing worship spaces represents a new context, and indeed geography, where secular values co-exist with religious practice and heritage. Additionally, churches have historically played a key role in their communities—some churches were built as gathering spaces of the community. For many people, a church building is more than a spiritual home; but also a vital socio-cultural space for non-profit organizations, arts institutions, soup kitchens, and other local/voluntary groups. Maintaining such spaces, often through adaptive reuse, is fundamental to supporting and sustaining a sense of belonging and a sense of community. Over the last decade, there has been a dramatic increase in the reuse of closed (or partially closed) churches into shared spaces for local people to gather and socialize, where a local sense of belonging can be regained. By accommodating the secular and religious values in the same space, and providing support to community cohesion, repurposed religious heritage are impacting the formation of urban landscapes in a postsecular age.

Stories Matter: Using Photovoice to Amplify Migrants’ Lived Experiences in Small and Mid-sized Canadian Cities

Zhixi Zhuang, Toronto Metropolitan University

Existing literature on settlement in small and mid-sized Canadian cities has paid less attention to migrants' perceptions and experiences of space and place, which are conducive to building a sense of belonging and a welcoming community. The theory of the production of space provides a pertinent theoretical framework for understanding immigrant settlement and integration as a multi-scalar process, representing the interplay of macro-level policies, meso-level community factors, and micro-level individual subjective lived experiences. Accordingly, this research aims to address the following research questions: What is the role of space and place in shaping migrants' settlement and integration experiences in smaller Canadian cities? What are the implications for municipalities to develop welcoming infrastructures that support migrant integration and retention? This research involved 17 semi-structured interviews with migrants from nine smaller cities across Canada, 13 of whom contributed their Photovoice to capture and describe their day-to-day spatial practices and lived experiences in the communities they resided in. The findings reveal that public spaces play an important role in shaping migrants' lived experiences and their wellbeing, considering the opportunity for social interaction, and accessibility to ethnocultural amenities, public services, and nature. Negative experiences of racism and discrimination in public spaces affected not only migrants' mental wellbeing, but also how they perceived the safety of public space, the sense of belonging, and the overall welcoming infrastructure of the host society. It is imperative for municipalities to combat racism and inequity through building culturally responsive public places and engaging migrant communities to co-create welcoming infrastructures.

Exploring eco-grief, transformative learning, and action in environmental observers

Melanie Zurba, Polina Baum-Talmor, Andrew Park, Kateryna Rudenko, Erica Mendritzki, Roberta L. Woodgate, Lisa Binkley & David Busolo, Dalhousie University

This research was part of a larger project titled “Worried Earth”, funded by a New Frontiers in Research Fund grant. Worried Earth brought together professionals from the social sciences, fine arts, health, history, and ecology to explore the ways that people in the Atlantic and Boreal regions of Canada express and process difficult emotions associated with ecological change. This subset of the larger project aimed to contribute to understanding emotional reactions to ecological change in “environmental observers” who are people who purposely observe the environment and environmental information as part of their work or role in society (e.g., citizen scientists, environmental professionals, Indigenous knowledge keepers). People in such roles are especially vulnerable to experiencing negative emotions, which could in turn affect their decision to keep engaging in their work and/or other pro-environmental behaviours. We used the term “eco-grief” to discuss such emotions and worked with a phenomenological approach to understand how environmental observers’

learning adjacent to ecological loss impacted their emotions, decisions, and actions. We worked with Mezirow's transformative learning as a theoretical framework, which characterizes learning in terms of critical self-reflection and re-evaluations in perspective, and connects it to decision-making and action (i.e., transformation). Learning relating to emotional was categorized within Mezirow's instrumental and communicative domains. Domains were then connected to the different forms of action reported by the observers. Finally, we considered how engaging in action potentially transforms emotions. Instrumental and communicative domains proved to relate to different emotional responses and forms of action, in turn providing insight for the development of programs and support for observers.

Exploring the impact of Nature-Based Programs on Newcomers' Wellbeing: Insights from Atlantic Canada (Mi'kma'ki)

Melanie Zurba, Dalhousie University

Newcomers' often face challenges to their wellbeing upon resettlement. Nature-based programs can improve wellbeing but our understanding of the experiences of those engaging in nature-based programs remains limited. This study explores the experiences of newcomers' utilizing nature-based programs. This community-based participatory action qualitative study used a social wellbeing approach to frame participants' experiences of and access to nature-based programs. Participants were recruited through purposive and snowball sampling methods. Participants completed demographic profiles and engaged in semi-structured interviews, assisted by interpreters. Interviews were transcribed verbatim and underwent thematic analysis. This study included 25 participants (16 females), 11 youth and 14 adults. Participants were newcomers to Canada who settled in Mi'kma'ki for approximately 18 months. Most participants arrived from Syria (60%) and Afghanistan (20%). Four overarching themes emerged. Three of the themes dealt with the positive impact of nature-based programs on participants' subjective, relational, and material wellbeing. Subjective wellbeing themes encompassed positive effects on emotions, mental health, and nature appreciation. Relational wellbeing themes included socio-networking and quality relations with family members and nature. Material wellbeing themes comprised physical activities, acquired knowledge, and cultural experiences. The fourth theme centred on barriers to participation including challenges related to transportation, communication issues and language barriers. Nature-based programming improved newcomers' wellbeing. However, identified opportunities for improvement include addressing transportation issues, ensuring regular communications of upcoming events, increasing the frequencies of events, and providing translators to improve interpersonal interactions. Integration of newcomers' insights improves inclusion and can maximize the impact of nature-based programs.