

UNIVERSITY
of GUELPH

Master of Landscape Architecture

MLA Thesis Abstracts 2016-2021



**School of Environmental Design and
Rural Development (SEDRD)**

Ontario Agricultural College

2016-2021 MLA Thesis Abstracts

Overview

The abstracts in this publication are from the thesis work of students in the Master of Landscape Architecture program at the University of Guelph during the last six years. These abstracts indicate the range of interests and the breadth and depth of research in landscape architecture at Guelph.

All University of Guelph's MLA theses from 2011 onward can be searched via [The Atrium](#), the institutional repository hosted by the University of Guelph's McLaughlin Library. Theses prior to 2011 can be borrowed through the MLA Graduate Program Assistant.

Theses can also be obtained through the Government of Canada - [Library and Archives Canada](#) website. You can access and search full text electronic versions of numerous Canadian theses and dissertations and information on copyright or purchasing of a thesis etc., from *Thesis Canada*.

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Additional information regarding the Master of Landscape Architecture at the University of Guelph can be obtained from the following websites:

[School of Environmental Design and Rural Development](#)

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August 2021

Landscape Architecture Faculty - Research and Practice Interests

Landscape Architecture faculty have been recognized within the University of Guelph as well as nationally and internationally for their expertise and strengths in teaching, practice, outreach and research. They bring a variety of education backgrounds and interests that span broad areas of the profession, adding significantly to the richness of the student learning experience at Guelph.

University of Guelph associated graduate faculty, emeritus faculty; and associated professionals and faculty from other university programs and universities contribute as well to the education of students in Landscape Architecture.

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2021 MLA Abstracts

Cortes, Tomas. [Resilient street design during the pandemic: The dining district of Guelph, Ontario.](#) **MLA Thesis 2021. Advisor: K. Landman.**

To mitigate the adverse impacts of COVID-19 on the restaurant industry, the City of Guelph, ON created the Dining District (DD) in its downtown. This pilot project closed an intersection to allow restaurants to extend their patios onto the streets, while adhering to social distancing guidelines. The goal of this research is to develop an adaptive and flexible design strategy, as guidance for an improved DD. The methods include a comparison of other municipalities, semi-structured interviews with key informants, and an analysis of street design guidelines. Results were utilized to create a design guidance that outlines design requirements and management strategies for flexible outdoor dining spaces. This research contributes to flexible design knowledge in response to the current pandemic, and to improved downtown streetscapes into the future.

George, Tina. [Evaluating the role of collage as a more effective representation in landscape architecture praxis.](#) **MLA Thesis 2021. Advisor: N. Amoroso.**

Photomontage has evolved from traditional collages to highly photorealistic simulations - the currently preferred style of landscape visual communication. These photorealistic graphics are popular, owing to their ease of interpretation, but limit discourse possibilities and fail to reveal the ideation process. On the other hand, traditional collage is credited with projecting the design process and promoting intelligent discourse. This study helped investigate the efficiencies of using traditional collage representation within current praxis. Literature review focused on the trajectory of landscape architecture graphics brought an understanding to why impressionist, realistic graphics are being used. A case-study analyzes of fifteen graphic representations by landscape architecture practices and the results of a questionnaire that tested for recognition of various graphic styles was used to consolidate information that led to the determination that collage techniques are superior and can be revived to be utilized effectively in praxis.

Gorveatt, Jacob. [A Landscape Circuitry Assessment of Apple Orchard Contributions to Natural Heritage Systems in Grey County, Ontario.](#) **MLA Thesis 2021. Advisor: R. Corry.**

NHS (Natural Heritage Systems) are networks of connected natural features that support ecological functions and species movement. Although agricultural areas are omitted from NHS, some agri-systems, such as apple orchards, have potential perennial vegetation habitat contributions. This research aims to assess how changes to apple orchards can be targeted to contribute to NHS. Three assessments of a subset of Grey County were conducted using landscape circuitry analysis. Resistance values were assigned based on avian species habitat potential. Orchards were analyzed and ranked according to potential contributions. Both targeted (TOC) and non-targeted (LOC) assessments showed circuitry improvements of 0.17 in highest ranked orchards, when compared to baseline conditions (BC). A targeted approach shows a concentrated circuitry response in higher priority orchards but minimal response is less preferable orchards. Prioritizing orchards strategically can efficiently achieve increased habitat connectivity. These assessments identify opportune areas for interventions by landscape architects and environmental planners.

Hughes, James. [Theme Parks: A Model of Best Practice for Streetscape Design.](#) **MLA Thesis 2021. Advisor: M. Holland.**

Internationally cities are acknowledging the importance of improving streetscape design in order to create a more positive pedestrian experience. Improved streetscape design contributes to the creation of a safe, efficient and financially prosperous landscape. This thesis analyzes how theme parks have successfully designed streetscapes, specifically Main Street U.S.A. at Walt Disney World's Magic Kingdom. This theme park streetscape provides a positive experience while supporting, on average, twenty-one million visitors. This work illustrates streetscape techniques employed by theme parks while

answering the question “Are Theme Parks examples of Streetscape design best practices?” This study evaluates streetscape elements found along Main Street U.S.A. and those used throughout the City of Toronto. These streetscape elements are evaluated against the criteria for successful streetscape designs outlined by Allan B. Jacobs in the book *Great Streets*. A streetscape design manual has been developed that consolidates the unique design techniques utilized by theme park streetscapes.

Kauffman, Camille. [Urban Agriculture Contributions to Socio-Ecological Adaptation in the City of Toronto.](#) **MLA Thesis 2021. Advisor: K. Landman.**

Urban agriculture (UA) has been researched in terms of how it contributes to a community’s health, esteem, resilience, bonding and autonomy. It has also been explored in terms of its environmental and ecological benefits. This research digs deeper into the mechanisms of socially-motivated UA operations that also provide ecological benefits to the city – such as increased habitats for wildlife and pollinator-friendly plant species. Through interviews with UA leaders, this research highlights how some Toronto UA operations might contribute to the City’s policy, planning and public space design responses to upcoming climate-related challenges. Socially-motivated UA operations do have the potential to be a positive ecological response to climate change in the City of Toronto.

Khuu, Winona. [Habitat Concept Plan for Parkland Development at 1 Port Street East, Mississauga, ON.](#) **MLA Thesis 2021. Advisor: B. Stewart.**

As Mississauga, ON, redevelops its waterfront’s last brownfield sites into parks or mixed-use developments, protecting and enhancing ecosystems becomes an integral part of this process. This thesis aims to develop a habitat concept plan for the proposed breakwater park constructed on lakefill at 1 Port Street East. Methods include: inventory and analysis of the Port Credit waterfront through background research and observations; investigating the design process and ecological considerations for Lake Ontario waterfronts of similar conditions through case studies and key informant interviews; establishing a program for ecological improvement at the site; and analyzing and visualizing the habitat concept plan. The design proposes an elevated meadow and riparian habitat on the proposed lakefill with specific infrastructures that support wildlife and enhance the existing ecosystem. These results will help inform the eventual design of the site and expand the ecologically-focused design opportunities for waterfront parks with similar conditions.

Kirk, Emma. [Living with Water: The Potential Urban Ghost Spaces have to Address Flood Mitigation in Toronto, Ontario.](#) **MLA Thesis 2021. Advisor: R. Corry.**

Urban ghost spaces have potential to reduce flooding in the Lower East Don Watershed by reducing and delaying stormwater runoff to receiving waterways. Ghost spaces are vacant or derelict space that have prior commercial, industrial, transportation, or residential use, receive semi-regular maintenance, and are unused. Past studies emphasize the importance of metropolitan place-based studies for flood mitigation research and highlight the opportunities vacant space presents. Geographic Information System (GIS) was used to locate 1,863 ghost spaces for Low Impact Development (LID), and a Stormwater Management Model (PC-SWMM) to quantify runoff captured within selected ghost spaces. Within identified ghost spaces stormwater runoff volume was reduced by 85% for 2-year, 5-year, and 10-year rainfall events. A strategic selection of 73 opportune ghost spaces, which focus on retention-based LIDs, reduced runoff by 93%. Defining an interconnected system of ghost spaces demonstrates an opportunity to advance flood mitigation strategies across Toronto, Ontario.

Lu, Natassya. [Motivations Underlying Business Engagement in Enviropreneurial Landscape Initiatives.](#) **MLA Thesis 2021. Advisor: R. Corry.**

Socio-environmental issues are increasingly critical factors in how businesses meet the expectations of their customers. However, business motivations for landscape can be fundamentally different from landscape architecture and might prevent these two fields from collaborating effectively. Three business case studies identify motivations to engage in enviropreneurial landscape initiatives, and

the circumstances in which they arise. Enviropreneurship is understood as the combination of environmental awareness with business activities to shift the basis of economic development towards a more environmentally friendly basis. Findings suggest that while small businesses have greater autonomy over their enviropreneurial decisions and focus on their local community, larger businesses are subject to greater external influences, focusing instead on initiatives that result in quantitative organizational changes. Understanding business motivations and the contextual factors that influence can identify conditions in which the involvement of landscape architects would align businesses with landscape initiatives that result in authentic and meaningful engagement.

Merrett, Joseph. [Assessment of the Ontario Association of Landscape Architects' Climate Change Policies.](#) **MLA Thesis 2021. Co-Advisors: S. Kelly & D. Guyadeen.**

The landscape architecture profession is expected to possess the skillset and knowledge of the environment to mitigate Greenhouse Gas Emissions to minimize the devastating impacts from future climate events on human beings and the natural world. This research assesses the Ontario Association of Landscape Architects' (OALA) approach to integrating climate change in key decision-making policy documents and identifies strengths and gaps to addressing barriers to climate change. A review of grey and scholarly literature was undertaken of the governmental and professional landscape architectural climate-change policies to identify climate change action barriers. This research found that the OALA's policies on climate change may be inadequate in guiding landscape architecture practitioners' conduct towards addressing and overcoming identified barriers to climate change. This study focused on providing the OALA with insights and recommendations to afford a more influential voice in future climate change policy discussions.

Parente, Joseph. [Analyzing Sustainable Development Practices in Greater Toronto Area Urban Parks.](#) **MLA Thesis 2021. Advisor. B. Stewart.**

Urban park landscapes function best under the three pillars of sustainability: economical, environmental, and social. Not only do urban parks relieve stress from urban life, but they also mitigate environmental stresses resulting from the current changing climate conditions. Building on research from 2010, the goal of this study is to investigate whether municipalities in the Greater Toronto Area (GTA) have or have not enhanced sustainable development practices in park planning, design, construction, and management over the last decade. A qualitative study utilizing questionnaires was created based on recent sustainable development guidelines and academic literature. Brampton, Markham, Mississauga, and Vaughan were selected as case studies, as baseline data on this topic was gathered in a 2010 thesis. Park planning professionals in those municipalities responded to questionnaires, and results are analyzed and discussed.

Souza Donato, Cibele Carla. [The Role of Neighbourhood Landscape Characteristics in Facilitating Outdoor Play During the COVID-19 Outbreak.](#) **MLA Thesis 2021. Advisor: R. Corry.**

Children's outdoor activities were significantly impacted by the COVID-19 outbreak in Canada. Children became less active as access to outdoor places where they typically play and exercise was restricted or denied. This research investigated how changes in outdoor activity of 5-17 year-olds are associated with neighbourhood landscape characteristics. This study uses secondary data on changes in outdoor activities from ParticipACTION and analyzes these changes in relation to four landscape characteristics, one demographic measure, and common places where children spent time outdoors. Results show that living in areas with more landscape features and higher population density is associated with a greater decline in outdoor activities, and children who used neighbourhood trails were more likely to show an increase in outdoor activities during the first wave of COVID-19 in Toronto. This indicates that landscape characteristics support children's physical activity when playgrounds are closed.

Sypkes, Joel. [Engaging Ecologies: A design framework for resilient and immersive bioretention plantings.](#) MLA Thesis 2021. Advisor: K. Landman.

The role of bioretention as a site level infrastructure solution to economic and environmental issues associated with urbanization is well understood. Public agencies have developed extensive resources for their design and implementation that are well supported by research. However, the vegetative layer does not receive the same attention as the engineered components within guidance and research, leaving successful implementation up to the skill of individual practitioners. In order to realize the potential bioretention facilities have to integrate nature and city, comprehensive planting design guidance is required. This study begins the process of establishing such guidance, illustrating its potential through the creation of a design guide prototype called GreenKey. It suggests a framework for future planting design research and practice that integrates ecology, horticulture, stormwater engineering, soil science, microbiology and landscape architecture to ensure practitioners are equipped to navigate the complex task of designing resilient and engaging urban bioretention facilities.

Tudo, Maxime Laphong. [Positioning Postmodernism: Instances In Parisian Parks.](#) MLA Thesis 2021. Advisor: M. Holland.

In France, a cultivated savoir-faire of landscape design and robust socio-political histories have established parks as not only functional components of urbanism but aesthetic compositions with potent psychological impact. Contemporary Parisian parks are integral to the French lifestyle and their designs openly encourage joy, innovation, and profound meaning. The aim of this thesis is to investigate the intersection of culture and creativity in three contemporary Parisian parks as tied to postmodern theory. An analysis is conducted on the intellectual, historical, and socio-political history of Parc de la Villette, Parc André Citroën, and Parc de Bercy from conception to realization and subsequently synthesized into five central characterizations of the postmodern condition identified by Jean-François Lyotard's in his exhibition: Les Immatériaux. In all, this thesis reveals the phenomenology of French postmodern landscape architectural design to engage the human spirit through underlying cultural referents and history of place.

2021 MLA Abstracts

Balestra, Carly. [Designing for Playfulness: A Heuristic Exploration of Playfulness and Playground Design.](#) MLA Thesis 2020. Advisor: S. Kelly.

Playfulness is an experience that emerges from the phenomenon of play. Contemporary play-design research focuses on children and is limited to a construct of play that emphasizes physical activity and physical literacy. This has resulted in play doctrine that perpetuates neoliberal ideals of productivity and idealized body types. This thesis explores playfulness in the play-design process through semi-structured interview with key-informant researchers, designers, planners, facilitators and regulators in the field of play-design, and provides creative considerations to aid designers in the development of more inclusive and playful spaces.

Beech, Kimberley. [Identifying and Promoting Cultural Heritage Landscapes Along the Beaver Valley Section of the Bruce Trail.](#) MLA Thesis 2020. Advisor: N. Perkins; Co-Advisor: S. Kelly.

The Bruce Trail (BT) meanders through the 725 km long Niagara Escarpment corridor that has a long history of human settlement. The Beaver Valley section of the BT is a mosaic of cultural heritage landscapes (CHL) from early settlement farmsteads to iconic apple orchards. At present the BT does not incorporate CHL through trail design although it is important that these landscapes are identified as they provide a deeper connection with the people who shaped this landscape. The goal of this research is to create guidelines that will inform trail designers on how to establish a CHL experience along the Beaver Valley section of the BT. Research methods were informed by the Ontario Heritage Tool Kit which

included field observation, key informant interviews, document and online archival review. The results were used to develop CHL guidelines specific to the BV and inform future trail design.

Carville, Skylyssa. [Developing an Inclusive-Design Landscape Audit Tool: Low-Income Single Mothers in Hamilton ON](#). MLA Thesis 2020. Advisor: B. Stewart.

In Canada today, women make up 50.4% of the population. Yet, the built environment is still not designed for women. Women make up 40% of the working world and according to the World Bank, women spend between 2 to 10 more hours a day than men caring for children, the elderly or the sick. The purpose of this research is to identify problematic conditions faced by women in the urban landscape. Using a neighbourhood landscape audit tool to collect user data during three neighbourhood walks, the tool combines a data collection sheet, photography, a character development reference sheet, specific every day carry items and a series of maps. This research provides urban design recommendations when designing for single mothers, women and a wider inclusion for all participants of the urban environment. Using the right methods which engage a women's daily use of space and perspective, a more inclusive design can be implemented by landscape architects.

Cheeseman, Kendra. [Disability, Walks, and My Neighbourhood: Experiencing the urban environment and climate crisis as a person with dysautonomia](#). MLA Thesis 2020. Advisor: K. Landman.

One in five Canadians have a disability, yet the built environment remains mostly inaccessible (Morris et al., 2017). The Accessibility for Ontarians with Disabilities Act and other guidelines aim to improve access, particularly for people who use assistive devices. A knowledge gap persists for many sensory disabilities and autonomic disorders. Dysautonomia is a set of conditions that controls the 'automatic' processes of the body, such as heart rate, blood pressure, and temperature regulation (Dysautonomia International, 2019). The lived experiences of a form of dysautonomia, the interrelationships of individual condition, built environment design, and weather conditions are explored in how they contribute to health and wellbeing. Using a walk-along interview method that combines photography, weather data and GIS, the researcher, who has this condition, took six walks through their neighbourhood during different conditions. This research provides preliminary recommendations for designing for dysautonomia and a walk-along interview process for landscape architects.

Chen, Sihao. [Encouraging Interdisciplinary Conversation between Landscape Architecture and Urban Planning Education in North America](#). MLA Thesis 2020. Advisor: S. Kelly.

In the Anthropocenic era, cities face increasing environmental, social and economic challenges that can be addressed through interdisciplinary efforts from planners and landscape architects. Literature exploring curricular connections between these two disciplines is limited. The purpose of this study is to determine similarities and differences between knowledge areas and requisite skills for the two allied disciplines of urban planning and landscape architecture; to identify appropriate approaches to increase interdisciplinary understanding and effort. The research was conducted through a mixed methods strategy where data from survey reports, literature, online questionnaires and university program curricula were collected. The results were analyzed to identify the differences in the knowledge and skills acquired by graduates of landscape architecture or urban planning; specific course additions are recommended.

Ganesan, Sita. [Petroleum Fate and Transport Modelling and Its Implications for Landscape-Responsive Design](#). MLA Thesis 2020. Advisor: R. Corry.

Despite investments in clean energy technology and infrastructure, Canada remains a resource-based economy that transports fossil fuels. Most transport is conducted by pipeline, which can cause severe environmental damages because leak detection system sensitivity is low and 15-20% of pipeline leaks go undetected each year. Low impact development (LID) strategies might be applicable to pipeline landscapes to mitigate petroleum leaching to water from small, persistent leaks by incorporating

petroleum sorbents with native soils. Petroleum fate and transport models were used to explore the theoretical capacity of a designed sorbent filter soil (SFS) system and to inform design parameters for system construction. Results suggest that design parameters change depending on soil texture, moisture content, and temperature. These designs provide a preliminary framework for landscape architects interested in landscape damage prevention and mitigation that could be applied to areas of concern for petroleum leakage.

Gatta, Massimiliano. [Immaterial Memorials: A Speculative Memorial through Counterpreservation.](#) MLA Thesis 2020. Advisor: M. Holland; Co-Advisor: N. Amoroso.

In a highly diverse society such as ours, what kind of urban image might function as a memorial? This thesis explores urban conditions, theories and artistic tendencies that have influenced contemporary memorialization. Interdisciplinary literature reviews and my participation in a memorial competition inform my argument that prescribing a specific method for memory work is ill-advised. Instead, I assert that the purposeful use of ruins can function as one way to integrate conflicting cultural memory into the built environment. The strategy has not received extensive attention in the current literature on memorials, but it has appeared in the domain of architecture as "counterpreservation" to denote the intentional use of architectural decay. Through careful site selection, an urban park in Toronto has been identified where an evolving modernist ruin could be the focal point in a landscape commemorating conflicting narratives.

Guse, Brennan. [A Waterfront Revitalization Strategy for Parry Sound's Post-Industrial Southern Waterfront.](#) Advisor: B. Stewart; Co-Advisor: K. Landman.

As Parry Sound shifts from an industrial economy to a more tourist-based economy, many of the properties along the southern waterfront have become vacant industrial sites. Although the land along the southern waterfront is now zoned as Marine and Resort Residential, there has been little investment in decades due to concerns about soil contamination and environmental degradation. This research aims to develop a waterfront revitalization strategy for Parry Sound's post-industrial southern waterfront. The methods include an understanding of contemporary landscape practices in master planning, an analysis of similar conditions in other communities and a comprehensive case study of the Town's southern waterfront. Results propose a landscape-based approach using a phased development strategy that will restore the site to the point that it is attractive to development and contributes to community amenity. This will help the Town conceptualize the future of the southern waterfront and bring economic investment and improved environmental quality to the region.

Heaman, Samuel. [Explaining the Impact of Funding on Public Skatepark Design: A Case Study of Skateparks in Hamilton, Ontario.](#) MLA Thesis 2020. Advisor: N. Amoroso.

Over the past decade, Hamilton, Ontario has been committed to bringing new and improved skateparks to the city. Some of these projects were funded via the municipal tax base, and others were funded by developer fees. The aim of this study is to determine how support and funding was garnered for these new projects and discern what impact the source of funding has on each project's final design. This study covers three case studies of skateparks within Hamilton and compare their funding and design to determine how alternative funding impacts public recreational space. Each case includes semi-structured interviews with key informants involved in planning, design and community engagement and secondary analysis of news articles and studies on skateboarding conducted by the City of Hamilton. Findings indicate that funding through developer fees places limits on the location and size of the project, but overall is beneficial from an advocacy standpoint.

Howarth, Samantha. [Humber River Transect: 'Landing' on site through the Canoe Reconnaissance Method, Fieldwork in Landscape Architecture.](#) MLA Thesis 2020. Advisor: B. Stewart.

'Landing' is a physical and intellectual experience that uses intuition and primary research in the field, to form an initial impression of a site. Landscape architects have developed inventory methods;

however, the literature indicates a water-based methodology for landscape assessment does not exist. Why is 'landing' through the immersive canoe reconnaissance method, essential to capture and map dynamic relationships, atmospheric qualities, and site particularities to design sustainable water landscapes? The goal is to create a new fieldwork method for inventory that will compliment current practices. The method tested on the Humber River, collects data using AllTrails mapping software, video, photography, audio recordings, data sheets and annotative maps. Synthesis of data through collage deep mapping indicate a value assessment and summary of observations. The method impacts the initial phase of design and aims to inform the entire design process to produce powerful aesthetic experiences that foster stewardship of water resources.

Karafilov, Jessica. [Best Practices for Using Citizen Science in Urban Forest Inventorying.](#) **MLA Thesis 2020. Advisor: K. Landman.**

Urban trees and forests are an essential component of the urban fabric and provide a range of environmental, social, cultural and economic benefits. Urban tree inventories are conducted for a number of purposes, including providing valuable urban forest data that allows for sustainable management decisions. Involving citizens in scientific enquiries is not a new phenomenon, and there are challenges and benefits to using this model. The goal of this research was to conduct a comparative case study of nine citizen science (CS) urban forest inventory programs to establish a guideline of best practices. This was achieved by analyzing academic and grey literature, and conducting supplementary key informant interviews. The best practices identified can serve as a practical tool for municipalities, NGOs and landscape architects seeking to implement or improve upon existing CS urban forest inventory programs.

Kuhail, Sima. [Place Attachment to the Palestinian Landscape: An Art-based Visual Discourse Analysis.](#) **MLA Thesis 2020. Advisor: L. Harder.**

Place attachment is a significant affective, cognitive and emotional bond between people and places of significance. Displaced populations draw on their attachment to a place of origin to help them develop attachment to their new places. Currently eight million Palestinians are living in diaspora as they continue to be displaced. Art-based research is an emerging method in place attachment studies. This research aims to construct a visual art-based place attachment narrative of the Palestinian landscape to inform future landscape design interventions for Palestinian communities. A visual discourse analysis method is applied on the content of the "Intimate Terrains" Exhibition in Birzeit, Palestine (2019) to interpret place attachment to the Palestinian landscape as portrayed by Palestinian artists. This research, while specific to Palestine, can be generalized and can be utilized by landscape architects who intend to better understand the communities they design for and who intend to create meaningful places.

Pedersen, Christine. [The Parametric Process: A Strategic Analysis on Digital Design Technology in Landscape Architecture.](#) **MLA Thesis 2020. Advisor: N. Amoroso.**

Digital design technology is emerging in landscape architecture, however, there is a gap in design education and in practice regarding skills training and knowledge pertaining to digital design technology. The objective of this study is to investigate the efficiencies of using 'parametric design' for landscape designs and in the practice of landscape architecture. A comparative case study analysis of three landscape architecture practices who utilize parametric design was investigated, along with the creation of a questionnaire that was sent to key informants who specialize in parametric design, was used to evaluate the efficiencies and value of parametric technology. A 3D-model prototype was generated using Rhinoceros (Rhino3D) and Grasshopper to test the 'parametric process' against the 'traditional' analogue design process. This research is intended to determine whether adopting parametric technology into landscape designs can be so efficiently, while also serving as a precedent for further research in design technology.

Sadeghiesfahani, Amirhossein. [The Historical Evolution of the Landscape Architecture Building at the University of Guelph.](#) **MLA Thesis 2020. Advisor: N. Perkins.**

The University of Guelph Landscape Architecture building is the home of the first landscape architecture program in Canada and has been continuously used since 1969. While many studies have been conducted on the performance of the building, few have examined the evolution of the building over 50 years and how physical change has been affected by the socio-cultural and design milieu. To better explore this, a landscape biography approach was used to understand how the landscape architecture building became what it is today. A comprehensive literature review, archival search, and interviews with key people were used to develop a historical record that was compared with design education movements over five decades. The results are intended to document the history of an outstanding education facility and inform future development.

Todd, Kevin. [The Yorklands in Guelph: Looking to the Future of a Landscape Shaped by Policy and Reform.](#) **MLA Thesis 2020. Advisor: M. Holland.**

Formerly home of a provincial prison, “the Yorklands” in Guelph, ON, is now a popular, passive green space. Guelph is exploring adjacent intensification, which it must balance with local climate change mitigation, food security, and community goals. This study explores the potential for adaptive-reuse at the Yorklands that would implement urban agriculture to address those goals. A landscape narrative method provides the basis for this by combining archival data, public policy context and site analysis to interpret and highlight the layered past at the Yorklands. Findings highlight the Yorklands’ unique history of prison labour (and cultural heritage features), current opportunities within planning policy, and local community stakeholder goals. This research is an example of understanding a historic landscape through the creation of a narrative prior to adaptive-reuse. At the Yorklands, it will provide crucial background for holistic landscape design intervention.

Van Ommen, Alanna. [Re-Connecting Wetlands: How Agricultural Drainage Areas Can Improve Landscape Connectivity in Essex County.](#) **MLA Thesis 2020. Advisor: R. Corry.**

The Essex County landscape faces pressures including agricultural development and urban expansion. Historically, wetlands have been threatened by habitat loss, fragmentation, and water quality degradation, causing a host of problems for wetland species. This study applies a geospatial landscape analysis and evaluation methodology to propose and assess the design of wetland habitat patterns in order to increase habitat quality and dispersal opportunities for wildlife. An analysis of Essex County’s Hillman Creek watershed was conducted using ArcGIS software, identifying locations suitable for supporting wetland restoration design and strengthening a wetland connectivity scheme for the watershed. The scheme was evaluated using network circuitry analysis, illustrating its functional connectivity, especially across southeastern parts of the watershed. Results show how a rigorous landscape analysis informs wetland restoration design at the watershed scale and improves a measure of functional connectivity. The research identifies potential for improving and estimating ecological connectivity through evidence-based landscape architecture.

2019 MLA Abstracts

Blay, Megan. [A Wellness Design Framework for High-rise Housing.](#) **MLA Thesis. 2019. Advisors: N. Perkins, N. Amoroso**

The province of Ontario has for two decades promoted intensification and increased density in urban areas to preserve undeveloped land. One consequence has been high-rise development. This form of residential development, however, may not contribute to health and wellbeing objectives that are central in community design and planning. Consequently, this thesis examined the literature on

health and wellness in housing and developed a framework for examining proposed high-rise development in Kingston, Ontario.

Burger, Kira. [A GIS-Informed Designed Landscape Pattern to Increase Urban Food Security and Optimize Ecological Integrity in Ottawa, Canada.](#) MLA Thesis. 2019. Advisor: R. Corry.

Proponents of urban food security predict that cities must become more self-reliant in food production. Current planning efforts lack landscape-level analyses to inform siting production in the urban matrix in configurations that optimize production and environmental quality. My research addresses the question: What landscape pattern of urban food production systems will increase food security while optimizing ecological integrity? Using GIS software, I identify 40.0% of urban lands in the City of Ottawa as having cultivation potential and assess the land's capability and suitability to support food production and respond to ecological patterns. Results show how integration of spatial analyses can reconcile food production and ecological integrity goals with 14 diverse production typologies arranged in a context-sensitive designed landscape pattern. This research identifies opportunities and constraints to achieving urban food security and optimum ecological integrity and provides evidence for how landscape design can improve wellbeing and sustainability in cities.

Collis, Brianna. [How alternative landscapes in the boreal forest impact woodland caribou using a model of animal movement, perception and memory.](#) MLA Thesis. 2019. Advisor: R. Corry.

The boreal ecotype of woodland caribou, Rangifer tarandus caribou, is a threatened species in Canada. Their decline is complex, but cumulative effects of anthropogenic activity - including habitat alteration and loss from economic activities - are implicated. This study investigates how a projection of current trends impacts caribou using alternative landscapes in northern Ontario. Landscapes are compared with an empirically-parameterized individual-based movement model to identify how landscape change impacts boreal woodland caribou. Results indicate that a business-as-usual landscape will continue to negatively impact woodland caribou persistence and population growth, as well as affect how caribou use the landscape with respect to movement and landcover occupation. Neither the existing landscape nor a business-as-usual projection stopped caribou decline, and caribou searched more-disturbed landcover types in the business-as-usual landscape. Results have implications for species conservation, landscape planning, boreal land-use practices, spatial ecology, and applied landscape ecology's role in the recovery of imperilled species.

Damone, Victoria. [An Exploration of University Campus Design Standards for Student Mental Health.](#) MLA Thesis. 2019. Advisor: N. Perkins

Mental health and well-being are increasing topics of concern, as one in five Canadians will experience a mental illness. This issue is especially prevalent amongst children and adolescents aged 15-24, making this demographic the most vulnerable. Although there is significant evidence linking the positive connection between the natural environment and mental health, many University Campus Master Plans do not recognize the value in planning for restorative landscapes on campus. This study explores the current Campus Master Plan at the University of Guelph and how the creation of an evaluative toolkit can aid in future planning and design guidelines for restorative spaces. The examination of campus planning policies, post occupancy evaluation and input from key informants helped to inform and validate the restorative landscape assessment toolkit. It is ultimately intended to determine the restorative and therapeutic value of an environment on campus and subsequently demonstrate both the value of preserving and planning for these spaces on campus.

Freeman, Tamara. [Designing for Therapeutic Care Farms.](#) MLA Thesis. 2019. Advisor: K. Landman.

Care farming is the therapeutic use of farming practices to provide health, social or educational care services for a range of groups of vulnerable people. This includes but is not limited to those with mental health problems, people suffering with substance abuse, adults and children with learning disabilities and disaffected youth. Literature on the process of designing for care farms is limited. This

research sought to develop care-farm design guidelines for landscape architects. The study identifies and analyzes design-related themes from the academic literature relating to care farms, building on therapeutic landscape literature. The design guidelines are created based on key informant interviews that took place in Ontario in 2019. The final design guidelines can support landscape architects with necessary information to design care farms.

Fudge, Aiden. [Memory, Place & Change: A Landscape Narrative of the Tantramar Marshes.](#) **MLA Thesis. 2019. Advisors: S. Kelly, B. Stewart.**

The Tantramar Marshes are one of the largest contiguous salt marsh ecosystems on North America's Atlantic Coast. The Marshes represent a hybrid landscape of agriculture, cultural artifacts, and transportation and energy infrastructure, marking a cultural and ecological crossroads- an essential bridge of fragile land connecting Nova-Scotia to New Brunswick. Rising sea levels are threatening the Marshes' functions; they are in a vulnerable position with no overarching regulatory protection or adaptive strategy. The goal of this research is the creation of a landscape narrative of the Tantramar Marshes for use as catalyst for future landscape interventions. The landscape narrative method uses archival and secondary source data to interpret existing conditions and predictions of future outcomes, defining distinct epochs of landscape change. This research intends to inform future landscape interventions that seek to respond to the challenges of climate change and shifting land use on the Tantramar Marshes.

McDonald, Kaja. [Exploring the application of environmental communication strategies for landscape architecture.](#) **MLA Thesis. 2019. Advisor: K. Landman.**

Environmental communication (EC) examines how audiences connect to information about the natural environment. EC is interested in strategies that frame information to facilitate improved relationships between humans and nature. The aim of this research is to identify key EC strategies and explore how these strategies can apply to landscape architecture. I developed a concept matrix of key strategies within EC through conducting a literature review. A communications expert assessed the identified concepts to affirm their relevancy. I composed a questionnaire and conducted semi-structured interviews with key informant landscape architects. An analysis of interview responses revealed which EC strategies were commonly used in landscape architecture, and the role ethics played in adopting these strategies. I also identified a need to further translate these concepts into compatible design terminology. Landscape architects equipped with an awareness of EC strategies can use this information to communicate the value of nature to different audiences and strengthen human-nature relationships through design.

Millar, Ashley. [Environmental Needs of People with Parkinson's Disease and their Informal Caregivers: Considerations for Landscape Architects.](#) **MLA Thesis. 2019. Advisor: N. Perkins.**

The built environment lacks the infrastructure people with Parkinson's Disease (PwPD) require navigating it independently. In progressive cases, PwPD require substantial help from their informal caregivers and therefore an unsupportive environment affects both. Surprisingly, there is almost no literature on the environmental needs of PwPD and their caregivers. The goal of this research was to better understand the impact the built environment has on PwPD and how this may influence caregivers' ability to access respite. Online Parkinson's Disease support group forums were analyzed using NVivo revealing the ways the built environment is a support and a barrier for PwPD and the ways caregivers use their environment during respite. The findings were categorized into themes for consideration by landscape architects. A better understanding of the role the built environment plays in the lives of PwPD and their caregivers allows landscape architects to better design for the needs of this population.

Plato, Courtney. [Effects of Green Streetscape Design on Autonomous Vehicle Navigation.](#) MLA Thesis. 2019. Advisor: R. Corry.

Twentieth century North American streetscapes were auto-oriented, with extensive impervious surfaces, decreasing vegetation, and devoid of desirable pedestrian activity. Emerging public design policies are trying to counteract these negative trends. The advancing technological development of the Autonomous Vehicle (AV) could re-direct the previous momentum of streetscape design, for better or worse. This study aims to explore some of the strategies used to make streetscapes greener, and their interactions with AVs. The goal is to assess whether these “green” strategies help, or hinder, the navigational abilities of the vehicle. Illustrated 2D and 3D dynamic streetscape demonstrations are assessed through online questionnaires distributed to AV experts. Tree canopy coverage is identified as the most concerning element for AV navigation. The results from this study can help landscape architects, urban designers and AV researchers consider how designed elements can lead to safer and more-sustainable streetscapes.

Pope, Carleigh. [Landscape Architecture for Hyper-Diverse Cities.](#) MLA Thesis. 2019. Advisor: K. Landman.

The concept of Hyper-Diversity in the social sciences is used to describe the unprecedented level of diversity in cosmopolitan cities; however, its relationship to landscape architecture has not been explored. The goal of this thesis is to critically evaluate the Tower Renewal Partnership (TRP) program in Toronto, Ontario, through a Hyper-Diversity lens. A Hyper-Diversity Critical Framework was compiled through a systematic review of peer-reviewed literature. Evaluation of the TRP program was carried out by building a case study from the TRP grey literature to which the Framework was applied. The evaluation revealed that the TRP Impact Areas that affect the public and shared spaces of Tower Neighbourhoods met the most criteria of the Framework. Difference is experienced within the public sphere and as such landscape architects should consider Hyper-Diversity and its influence on design.

Vandenbrink, Derek. [Smaller Homes, Bigger Community: Cluster Housing as a Suburban Redevelopment Strategy in Ottawa.](#) MLA Thesis. 2019. Advisors: S. Kelly, B. Stewart.

Suburban detached houses have become unaffordable to own for a portion of the Canadian population. This low-density housing form is associated with increased distrust between neighbours and social isolation. Cottage Style Pocket Neighbourhoods [CSPN] are houses around a common courtyard, promoting community. The cottage size results in a decreased cost. This research explores the feasibility of CSPN as a strategy for the redevelopment Ottawa inner ring suburbs. Case studies of existing CSPN in North American suburbs are compared to Canadian Provincial and Municipal policy and by-laws. Semi-structured interviews with experts from planning, land development, design, and consulting practices are used to analyse the affordability and market of CSPN. The study concludes that CSPN conforms with policy and most by-law requirements, can provide market priced units and that there is a small but growing market for this housing type. CSPN could be a style of housing redevelopment that reimagines the suburbs.

Xing, Ruochen. [An Application of Biophilic City Design Principles to The Jane-Finch Neighbourhood of Toronto.](#) MLA Thesis. 2019. Advisor: R. Corry.

Biophilic cities promote environmental sustainability and people’s health and wellbeing, especially where population density is high. The Jane-Finch neighbourhood of Toronto has high population density and low green space coverage, providing an opportunity to apply biophilic city principles to address the public concerns of limited nature contact opportunities. This thesis will explore how biophilic city principles apply to Jane-Finch, identifying opportunities and challenges to application. Design proposals are created for two land use typologies in Jane-Finch neighbourhood by applying biophilic design principles and discussing when they are most opportune or most challenged. The results show the most challenging site typology is the residential street and the most challenging principle is prospect. The

research contributes to understanding the biophilic city concept and its application; the findings provide suggestions on how to transform Toronto into a more biophilic city.

2018 MLA Abstracts

Birks, Elizabeth. [Toronto's Ravine Network: Overcoming the Stigmatization of Ravine Environments Through Design.](#) MLA Thesis. 2018. Advisor: S. Kelly.

Uniquely among North American cities, Toronto possesses an extensive ravine network representing 17% of Toronto's land area. This thesis will examine the underlying reasons for historical ravine stigma and how design can overcome it. This perception is represented by a combination of environmental degradation, perceived risks and undesirable activities or persons. This exploration included key informant interviews, survey of ravine users, site observation with GIS mapping. Ravines are commonly regarded as either unsafe or not user-friendly. Unlike manicured city parks, ravines are irregular, wild and largely hidden and thus potentially misused and underappreciated. This thesis will be built around the premise that with Toronto's growing population and subsequent pressures on available and/or under-utilized lands, ravines will be at increased risk without efforts to ameliorate the effects of associated stigmas. The challenge of overcoming the multiple stigmas associated with ravines can only be achieved through engaged design and policy guidance in conjunction with the involvement of community and education initiatives.

Cooper, Matthew. [Urban Park Street Edges: Enhancing Functionality for the Performance of the 21st Century City.](#) MLA Thesis. 2018. Advisor: S. Kelly; Co-Advisor: B. Stewart.

Parks within the City of Toronto's urban core are currently facing increased public pressure. "The edge zone" of the park, located at the interface of the street and the park interior, represents an underutilized space with potential to provide alternative park functions and increase the overall performative service of urban parks. Cities in the United States and Canada have launched planning initiatives which have strategized numerous design policies aimed to increase park services. These initiatives include improving edge conditions. This study aims to explore, identify and categorize contemporary edge zone typologies, which can inform design solutions for underperforming urban street park edges. A comparative case study analysis was conducted to identify and highlight a series of these typological forms and functions, as well as illuminate the potential benefits these new edge zone design strategies could provide for the urban park.

French, Emily L. [Designing Public Open Space to Support Seismic Resilience: A Systematic Review.](#) MLA Thesis. 2018. Advisor: K. Landman.

In the wake of major earthquakes, public open spaces become hubs for both short-term disaster response efforts and support longer-term recovery needs. At present, few open spaces are actually designed to support these intermittent but critical uses. Currently, there is no consolidated body of knowledge or resource for landscape architects designing for areas of high seismic risk. This thesis identifies ways in which landscape architects can proactively plan and design open space to support seismic resilience. A systematic review of both grey literature and peer-reviewed academic papers was conducted. The results of the systematic review identified ten key themes. These themes contribute to developing a foundation for landscape architecture and allied design disciplines to better incorporate seismic resilience into the planning and design of public open spaces.

Ibey, David. [Evidence-Based Landscape Architecture through Education in North America.](#) MLA Thesis. 2018. Advisor: R. Corry.

In order to understand whether landscape architects are adequately equipped with the skills to apply research findings to solve practical design problems, this study explores research education in landscape architecture curricula. Phased questionnaires were used to acquire general program

information from program contacts and then to generate more specific research course information. Graduate programs were more likely to require students to complete at least one research course, however 325 of 706 of all students represented in the sample were required to take a research course. Research coursework responses revealed a significant, positive correlation between difficulty level of instruction and minimum required competency. The relationship between research instruction level, competency, and ability to practice evidence-based landscape architecture is discussed.

Lamirande, Nicole. [An Exploration of Landscape Architects' Perceptions of Trees.](#) MLA Thesis. 2018. Advisor: N. Perkins.

This thesis is an exploration into how trees are perceived by professionals associated with landscape architecture. It is argued that perceptions influence the decisions that we make, therefore the aim of this study was to explore the range of perceptions of notable landscape architects selected for their varied expertise. Fifteen participants across North America were interviewed using a semi-structured interview method. Interview transcripts were analyzed using content analysis and responses were categorized into three themes: influence, perceptions, and action. The results suggest that participants have a wide range of perceptions of trees in their scholarship and practice. Most notably, perceptions ranged from a tree as a tool, to a tree as a living thing, to a tree as something personal. Based on the results of this study, it can be concluded that a range of perceptions of trees may influence professional practice in the planting design decisions that landscape architects make.

Laszczuk, Michal. [Fencerows: Reinforcing Regional Identity in Urban Design.](#) MLA Thesis. 2018. Advisor: C. Paine.

Fencerows constitute dominant visual elements of the historic rural landscape and hold potential to be applied in the design of urban and suburban sites to reinforce regional identity in Southern Ontario. A survey of fencerows was developed through fieldwork resulting in a typology that summarizes the visual and functional characteristics of these linear features. The typology was applied in the design of a high-density development site in Mississauga, Ontario through an interpretive design strategy that translates the functional and visual principles of fencerows into designed planting assemblages. An assessment of the characteristics and feasibility of the designs demonstrates that they contain a series of defining features which reference the principal components of fencerows. Furthermore, the assessment demonstrates that the designs can be adapted in the urban environment in accordance to several municipal and urban design guidelines from the Greater Toronto and Hamilton Area.

Luce-Andreyko, Sarah. [Burning Man: A Guiding Light for Participatory Community Design.](#) MLA Thesis. 2018. Advisor: N. Perkins; Co: Advisor: M. Holland.

Black Rock City, an ephemeral community emerging in the Nevada desert for nine days a year, achieves better place attachment and interactions for its 70,000 participants than permanent landscapes in urban areas designed to serve far larger communities. When people more readily call Burning Man 'home' before they do their home, it becomes the ethical and moral responsibility of designers to understand and learn from this disconnect. The Burning Man event will be given context and used as a precedent informed through: (1) autoethnography of the 2017 burn explored through Randolph Hester's 12 Steps to Community Development, the 10 Principles of Burning Man, and an adapted photovoice journal, and (2) transcribed interviews with two prominent public consultants in Toronto, and a philosopher at the Burning Man Organization. Perceptions surrounding the practice of community design will be challenged, valuing the capabilities of users, citing Burning Man as catalyst.

Nikota, Katie. [Mycology Applications for Landscape Architecture.](#) MLA Thesis. 2018. Advisor: K. Landman.

Recent advancements in mycology have led to revolutionary discoveries of underground fungi that form essential symbiotic relationships with plants, connecting nutrients and communicating

between root systems. Knowing how to utilize fungi to our benefit through mycorestoration and mycology applications might allow landscape architects to become ecological balancers for both human and natural environments. There is a lack of understanding of the complex systems of mycology. Bridging this gap between mycologists and landscape architects is essential to create a healthy mycorrhizal network in designed landscapes, especially distressed urban soils. This exploratory research investigates how mycology can be applied within the practice of landscape architecture, in order to propose applications of mycology and mycorestoration techniques, through a review of key literature and key informant interviews. Applications of mycology and mycorestoration in urban environments that contribute to healthier myco networking are proposed.

O'Neill, Stephen. [Measuring Urban Forest Canopy Effects on Stormwater Runoff in Guelph, Ontario.](#) **MLA Thesis. 2018. Advisor: R. Corry.**

Cities are complex and contribute to urban stream degradation due to increased stormwater runoff volumes and velocities and ineffective stormwater management infrastructure. Trees provide measurable benefits to cities including rainfall interception which can decrease stormwater runoff, demonstrating their effectiveness as a stormwater management tool. This study quantifies the effects of urban forest canopy on stormwater runoff to assess proportions of canopy cover required to effectively reduce runoff levels. i-Tree Hydro, a semi-distributed hydrological model, was used to measure hydrologic effects of the City of Guelph's urban forest. Varying proportions of canopy cover were used to compare Guelph's current and potential urban forest. Results show that increasing canopy cover in plantable spaces decreased overall flow within the City, however, runoff over impervious surfaces increased. The findings can inform design decisions related to urban stormwater management and improve urban forest management measures; however, impervious surfaces remain a design challenge.

Purvis, Amy. [A Greenway System Approach to Developing A Linked Amenity Network in Rural Ontario.](#) **MLA Thesis. 2018. Advisor: S. Kelly.**

As rural economies restructure due to a shift in demographic, social, and economic development, communities face significant challenges in promoting and encouraging continued economic growth. Rural communities are implementing tourism-based development strategies, marketing natural resources, culture, and history as amenity for creating tourist destinations. For many, tourism is seasonal and not a stable revitalization strategy. This study explores an integrative approach to greenway system design that supports a purposeful, amenity-linked network and quality of life attributes as a strategy for rural revitalization. A design framework was formulated from secondary data and then applied to a case study site. Key evaluators determined through selection criteria, provided an evaluation of the applied framework and design outcome. Results indicate how the application of an integrative landscape-based approach increases the attractiveness of rural communities to new residents, contributing to a revitalization strategy. Landscape architects can guide the future of rural landscapes towards heightening the quality of place and desirability of rural areas.

Rotzstain, Daniel. [Enhancing Strip Mall Landscapes in Toronto's Inner Suburbs.](#) **MLA Thesis. 2018. Advisor: K. Landman.**

Strip malls are a common form of commercial architecture lining arterial roads in Toronto's inner suburbs. Originally designed to accommodate the automobile, strip malls and the neighborhoods surrounding them are increasingly home to low-income and new immigrant populations who have low rates of car ownership. With affordable rents, strip malls within walking and transit distance of these communities have become vibrant gathering places, exhibiting characteristics of Oldenburg's "Third Place". However, the landscapes adjacent to strip malls are underutilized, with few amenities for pedestrians, e.g., seating and shade. After recognizing their role as inner suburban Third Places, the aim of this research is to identify and evaluate programs to implement landscape enhancements for pedestrians at strip malls in Toronto. "Landscape enhancements" is defined based on interviews with strip mall patrons, business- and property-owners. Document analysis and interviews with key

informants inform an evaluation of the applicability of existing streetscape improvement programs to strip mall landscapes while recommending a new program — plazaPOPS — to address their public-private nature. Results are synthesized into an easy-to-use guidebook that facilitates citizen-initiated strip mall landscape enhancement projects.

Xie, Luozijie. [Urban Heat Islands as Opportunities to Extend the Use of Open Spaces.](#) MLA Thesis. 2018. Advisor: R. Corry.

Urban heat islands (UHIs) are a consequence of city design and population growth. Negative impacts of UHIs have been discussed, but the opportunity for UHIs to create thermally comfortable outdoor spaces through their warming effect during cool times has not been studied. By taking advantage of UHI and by using microclimate design principles for increasing outdoor thermal comfort, citizens might use public open spaces under broader weather conditions, including cool springtime and autumn evenings. A public plaza in Toronto was designed using microclimate design principles to enhance outdoor thermal comfort using UHI effects and evaluated for human thermal comfort with the COMFA model. In most locations within the design the thermal comfort increased during cool times, but for a few locations this increased summer heating too. Findings provide new directions for landscape architects suggesting how UHI can be used as an opportunity under certain conditions in city design.

Zakharova, Tatiana. [Place Empathy and Environmental Education.](#) MLA Thesis. 2018. Advisor: N. Perkins.

Ministry of Education documents define environmental education as education about, for, and in the environment. But how does formal curriculum actually describe “environment” in different subject areas and what does this say about students’ relationship with it? Relying on hermeneutics for foundation and methodology, I analyze and interpret the Ontario Grade 2 and Grade 3 environmental education curriculum and identify themes of damaged connectivity and fear of complexity that can be addressed with place empathy. Having defined place empathy as a cognitive and affective representation process in which an observer simulates another’s interpretations of place in order to deepen her understanding of place, and developed a place empathy framework, I identify a number of learning practices which could be used by teachers to engage students in place empathy to encourage, as I hypothesize, deeper understanding of and relationship with place. Ministry of Education documents define environmental education as education about, for, and in the environment. But how does formal curriculum actually describe “environment” in different subject areas and what does this say about students’ relationship with it? Relying on hermeneutics for foundation and methodology, I analyze and interpret the Ontario Grade 2 and Grade 3 environmental education curriculum and identify themes of damaged connectivity and fear of complexity that can be addressed with place empathy. Having defined place empathy as a cognitive and affective representation process in which an observer simulates another’s interpretations of place in order to deepen her understanding of place, and developed a place empathy framework, I identify a number of learning practices which could be used by teachers to engage students in place empathy to encourage, as I hypothesize, deeper understanding of and relationship with place.

2017 MLA Abstracts

Bohner, Nadine. [Landscape effects on turtle road trauma.](#) MLA Thesis. 2017. Advisor: R. Corry.

Roads in Southern Ontario have a detrimental effect on turtle populations. Due to complex habitat requirements and migratory movements, turtles are especially impacted by vehicular trauma. Past research indicates vehicular trauma is aggregated both spatially and temporally. For mitigation to be effective, it should focus on locations and times of concentrated trauma. This study used a geographic information system (ArcGIS) to map six years of turtle trauma data from the Ontario Turtle Conservation Centre, identify trauma clusters, and examine fine-scale landscape characteristics

correlated with these clusters. Data for three turtle species (*Emydoidea blandingii*, *Chrysemys picta marginata*, and *Chelydra serpentina*) were combined with classified landscape imagery to analyze landscape pattern characteristics associated with trauma clusters by species, sex and season. By targeting locations with specific landscape characteristics and moments of peak potential, results can be used to guide species- and sex-specific mitigation efforts.

Boyd, Leah. [Opportunities for Landscape Architects in the Facilitation of Public Art.](#) MLA Thesis. 2017. Advisor: K. Landman.

The field of landscape architecture has become more complex through increased social and ecological implications, requiring a greater need for landscape architects to work with other professionals such as horticulturalists, ecologists, engineers, and planners. Artists also rely on the skills of other professionals when creating outdoor and permanent public art due to issues such as environmental exposure, human interaction and lack of technical experience. This project explores opportunities for the involvement of landscape architects in establishing public art. Case studies in combination with literature review, document review of public art policies, and key informant interviews of public art professionals were analyzed to find recurring challenges during the development of public art from initial concept to construction and reveal how landscape architects may be able to resolve such issues.

Bullock, Erika. [Increasing Winter Bikeability in Toronto Through Improved Bicycle Network Design.](#) MLA Thesis. 2017. Advisor: C. Paine.

Cycling, a sustainable mode of transportation, is often discredited as a four-season option as it is perceived as being dependent on weather conditions. This research presents the concept of winter cycling and its impact on, and how it is impacted by, bicycle network design. Winter bikeability criteria were synthesized from the literature and applied to four case study cities known for their bikeability and year-round maintenance of cycling infrastructure, including Montréal (Canada), Minneapolis (USA), Copenhagen (Denmark), and Oulu (Finland). Through analysis of the applied criteria, a set of best practices from each city was created based on safety, ease of use, and improved bikeability. The best practices were supported by current literature and active transportation guidelines. The best practices were then applied to Toronto (Canada) as design recommendations to improve the City's bicycle network design. The results provide direction for planning of bicycle networks in cities with winter climates.

Ferguson, Andrew. [Identifying Municipal Barriers Preventing the Adoption of Green Infrastructure Stormwater Management in Ontario, Canada.](#) MLA Thesis. 2017. Advisor: N. Perkins.

Green infrastructure (GI) has emerged as a strategic landscape approach to aid in creating more sustainable communities that benefit both people and wildlife. Despite the well-known social, economic and environmental benefits of GI in managing stormwater, many municipalities have been slow to adopt GI. To understand some of the factors impeding GI adoption this study conducted a comparative case-study analysis between two municipalities and two Conservation Authorities in southern Ontario with a focus on stormwater management (SWM). Interviews were conducted with four key informants and were analyzed using coding and theming. Results indicate a number of significant barriers including: a lack of experience by contractors in constructing GI projects, maintenance costs and complexities of GI, and the need for a cultural modernization within municipalities. The knowledge revealed through this study can benefit municipalities in overcoming barriers similarly experienced in municipalities in southern Ontario.

Gauvreau, Patrick. [How Mechanical Disturbances Affect Soil Respiration Rates in Urban Forests Five to Eleven Years After Development.](#) MLA Thesis. 2017. Advisor: R. Corry.

Urban forests are a valuable resource which provide ecological services and functions. The integrity of an urban forest patch can be affected long-term by soil disturbances associated with urban

land development, such as: topsoil clearing and soil compaction. The purpose of this exploratory study is to analyze soil microbial activity of forested urban areas following land development with known disturbance histories. Three sites in Guelph, ON, with soil disturbance histories between 5 and 11 years ago were used to compare soil microbial activity. Soils from forests after mechanical disturbance and controls were measured for respiration rates in forest patches using a 24-hour soil CO₂ test. Disturbed soils from 5, 7, and 11 years after disturbance had lower respiration values compared to controls. Impacted soil biology can be easily tested for and should be considered by landscape architects to plan for more resilient urban forests.

Lee, Alice. [Integrating Urban Soil Management within Landscape Architecture in Southern Ontario.](#) **MLA Thesis. 2017. Advisor: K. Landman.**

Urban soil is the foundation for many landscape architectural projects; however, urban conditions may challenge optimal soil functions. Despite the importance of soils, literature suggests that landscape projects may fail due to poorly managed soils throughout the stages of design, implementation, and maintenance. This study explores how urban soil management can be improved within the profession of landscape architecture in Southern Ontario. Semi-structured interviews were conducted to collect qualitative data from key informants who possess an understanding of urban soils and how they are managed. Key informant interviews identified how urban soils are currently viewed, what challenges exist, and what resources have been developed to guide urban soil management decisions throughout the design process. This research will strengthen the role for landscape architects to value urban soils and ensure that they are being properly managed on project sites.

Li, Jianye. [Revitalizing Cities Through Design of Waterfront Brownfields.](#) **MLA Thesis. 2017. Advisor: C. Paine.**

Post-World War II, large-scale city expansion associated with rapid urbanization has rendered many urban waterfronts in city centers as obsolete brownfield landscapes. Upon being remediated, these sites have the potential to be converted from underutilized land to vibrant urban waterfront neighborhoods. A remediated waterfront site in the Port Credit neighborhood of Mississauga, Ontario provided the opportunity to develop a design for revitalizing the site in response to concerns expressed by the public. Two waterfront brownfield case studies, one in downtown Toronto and the other along the lakeshore of Mississauga, were analyzed within the framework of principles of New Urbanism to ascertain how relevant issues had been addressed. The proposed design responds both to public concerns and the goal to integrate the site into the surrounding community. This research will contribute to a better understanding of socially and environmentally sensitive approaches to waterfront brownfield revitalization, as well as providing urban planners and landscape architects with tools for creating dynamic possibilities for accommodating emerging public demands in the heart of cities.

Livingstone, Aislin. [The Use of Citizen Science in the Landscape Design Process: Opportunities for Monitoring and Evaluation.](#) **MLA Thesis. 2017. Advisor: K. Landman.**

The field of Landscape Architecture faces increasing demand to apply design processes that are evidence-based and informed by sound research. As a participatory approach to monitoring and evaluation, citizen science engages the public in the production of localized scientific knowledge across temporal and spatial scales. Although citizen science is a popular programmatic element in Landscape Architecture, little research explores how it can be incorporated elsewhere in the design process. This research uses a focused literature review and data from a cross-case comparison to gain insights about how citizen science can increase capacity for monitoring, evaluation, and participatory design in Landscape Architecture. Long-term and coarse-scale data collected through participatory research have positive implications for landscape architects. Findings report on key considerations to include citizen science in design to promote collaboration between the public, researchers, and designers that is essential to furthering evidence-based landscape architecture.

Lockwood, Amanda. [Balancing Perceived Sensory Dimensions and Biotopes in Urban Green Space Design.](#) MLA Thesis. 2017. Advisor: R. Corry.

Eight Perceived Sensory Dimensions (PSDs) were identified from previous studies to describe user preferences of park qualities and characteristics: nature, culture, prospect, social, space, rich-in-species, refuge, and serene. Recently, PSDs and biotopes have been integrated to enhance park users' preferences and vegetation structure. Usable green space needs to balance social aspects (PSDs) and environmental aspects (biotopes) at the design stage. This study assesses urban green spaces through experimental design based on the inclusion of the biotope 'green space' and PSDs. Designs were created based on market squares in Guelph and London, Ontario, by including biotope characteristics for plazas and PSDs. Designs were critically analyzed to determine that PSDs and the biotope category 'plaza' had a positive relationship aside from the PSD 'nature'. This research contributes to the understanding of socially and environmentally cohesive urban green spaces, providing landscape architects with tools for creating usable green spaces in Southern Ontario cities.

Pierre, Adele. [Using GeoDesign to Communicate the Effects of Bioswales on Urban Stormwater Management.](#) MLA Thesis. 2017. Advisor: S. Kelly.

With increases in storm frequency and intensity, municipalities need to find new ways of managing stormwater. Solutions require collaboration across planning disciplines and input from an informed public. This study uses GeoDesign to model how green infrastructure, specifically a system of bioswales, can ease the burden on an aging, combined sewer system. A case-study is explored using a section of Ottawa Street North in Hamilton, Ontario. Key Informant Interviews were conducted to inform choice of site and quantitative, geospatial information was collected through GIS. Parametric modelling was used to generate a design, and scenarios created to show resulting impacts on stormwater runoff. The model was posted online as an interactive presentation, accessible to all stakeholders for review and comment. The results of the study demonstrate powerful new tools that can assist landscape architects in designing, collaborating and communicating stormwater strategies.

Shlemkevich, Karen. [The influence of a greenwall on residents' eating habits in a long-term care facility dining room.](#) MLA Thesis. 2017. Advisor: N. Perkins.

Residents in Long-Term Care (LTC) facilities often experience poor mood and malnutrition concurrently, both of which can be exacerbated by an inadequate dining experience. A growing body of research suggests that natural environments can improve mental well-being and plants alone might enhance the dining experience. This research hypothesized that a plant wall could influence residents' length of stay at the dining table and consequently improve food and drink consumption. Nutritional intake and length of stay data were collected before the installation, during and post-installation of a greenwall. Data were analyzed using a series of paired t-tests. Analysis revealed that residents who directly faced the greenwall had a statistically significant increase in fluid intake ($p=0.03$) and a non-statistically significant increase in food intake ($p=0.21$). Results suggest that enhancements to the dining room can influence eating habits among residents.

Tarbush, Emma. [Exploring Strategies for Soundscape Design in Landscape Architecture.](#) MLA Thesis. 2017. Advisor: C. Paine.

Landscape architects have a visual approach to design and consequently, sonic environments are seldom acknowledged. This study aims to bring more awareness to the importance of the acoustic environment in landscape architectural practices. Steps for approaching soundscape design were devised through a literature review and a soundscape design for Day Park Beach, Cape Breton, Nova Scotia. The literature review provided context for the design by examining research related to sound. Data were collected through soundwalks, two focus groups, and on-site observations. Using a sound recorder, the researcher collected perceptions of three people residing in Cape Breton and six visitors regarding existing soundscapes during one day at Day Park Beach. Results show the importance of soundscape evaluation and the value of understanding the viewpoints of both residents and visitors

during the design process. This thesis offers useful information for landscape architects interested in developing soundscape designs.

Taucer, Julia. [Design for Citizen-Generated Urban Interventions: Understanding the Relationship Between Formal and Informal Urban Design in Toronto.](#) MLA Thesis. 2017. Advisor: K. Landman.

Citizens' urban practices that intentionally alter a public setting challenge privatization of open spaces, as well as exclusion from design processes and public spaces of the city. Research on the spatial context of these practices, referred to as citizen-generated urban interventions, is limited. This project identifies spatial conditions that are associated with the emergence of citizen-generated urban interventions. From the literature, I developed a site assessment to evaluate the spatial conditions that are theoretically related to the occurrence of citizen-generated urban interventions. Using wandering as a method, I identified and evaluated sites of interventions found in publicly accessible areas throughout Toronto. After analyzing the data, I describe commonalities among the spatial conditions of the observed sites. Based on the results, I created a working typology of citizen-generated urban interventions and preliminary design recommendations for landscape architects.

Trendle, Chelsey. [The Influence of Adaptive Management Practices on the Success of Ecological Landscapes in Southern Ontario: Lessons for Landscape Architecture.](#) MLA Thesis. 2017. Advisor: K. Landman.

Ecological design projects face many challenges in intensively modified landscapes that threaten the long-term integrity of natural systems. Intensification of surrounding land uses and increasing recreational pressures present numerous obstacles for conservation land managers. This research investigates the existing land management strategies of public and private agencies in Southern Ontario. The goal is to determine how adaptive management and ecological design principles contribute to the long-term success of conservation and habitat enhancement projects in intensively modified landscapes. Six case studies form the basis of this investigation; a review of existing management plans and semi-structured interviews inform a comparative analysis of current land management regimes. Results are used to determine how metrics for land management, informed by ecological design goals, contribute to the adaptive management process and the ability of landscape architects to achieve long-term success in their ecological design projects.

Viola, Cyrille. [Applying green infrastructure to treat Escherichia coli polluted stormwater runoff at Bayfront Beach, Hamilton, Ontario.](#) MLA Thesis. 2017. Advisor: S. Kelly.

In beach environments heavily populated by waterfowl, E. coli from feces can cause major impairments to beach water. During rainfall events, feces are carried into receiving waters, which can elevate E. coli concentrations above the regulatory recreation water quality standard. When waters do not meet the standard, the beach environment becomes unsafe for human contact and must close to public use. This research explores green infrastructure as an alternative treatment for E. coli pollution at the case study site, Bayfront Beach, Ontario. A site inventory, design concepts, and analysis on suitability/capabilities were developed based on data collected through municipal reports and semi-structured interviews with key informants. The findings in the background research informed a framework for green infrastructure design. A final design concept implementing the framework was developed to demonstrate the application of green infrastructure to treat E.coli polluted runoff. Finally, both the framework and concept were evaluated by the key informants.

Zhang, Junyi. [Assessing the Application of Sponge City to Downtown Guelph.](#) MLA Thesis. 2017. Advisor: C. Paine.

"Sponge City" is a concept already applied in many cities around the world. The aim of this new concept is to create a city that absorbs rainfall and releases rainwater when required – similar to a sponge. The goal of this research was to understand whether the concept can be effectively applied to medium-sized cities in Canada, with a particular focus on Guelph, Ontario. Design strategies were

gleaned from precedent analyses of well-known stormwater management cases. Case studies were investigated, demonstrating three different applications of the Sponge City concept, including waterfront design, community planning, and urban rooftop garden design. Principles derived from the three case studies were applied through the conceptual design of part of a recent intensification proposal for Downtown Guelph, Ontario. Data, including site areas and annual precipitation, were collected through geographic information systems. A comparison of collected precipitation data and calculation of water absorption was used to verify the absorption ability of the proposed design. Results indicate the benefits and limitations of applying this concept. Redesign recommendations for Downtown Guelph are provided to assist landscape architects and urban planners interested in implementing the Sponge City stormwater management concept.

2016 MLA Abstracts

Bartolo, Alasandro. [Resorts as Cities](#). MLA Thesis. 2016. Advisor: S. Kelly.

This document assesses physical aspects of themed environments, specifically pertaining to resort developments, through city design theory. The evaluation builds on the speculative study of built themed environments and their physical characteristic's ability to alter an individual's experience through design. The experiential elements concentrate on the influence of physical features effect on perception and memorability based on past research. This document aimed to discover if physical elements of design are present in resort development and to study how clear these elements are. Data collection involved an analysed photo-survey questionnaire. The findings show most design elements in the case study of Blue Mountain Village were not obvious. Results were studied and organized to create recommendations and provide knowledge on how to design themed environments in several situations.

Cafarella, Scott. [Urban Open Space Planning in Southern Ontario: Lessons from the Red Hill Valley Project](#). MLA Thesis. 2016. Advisor: K. Landman.

Urban open space systems are interconnected networks of green spaces, waterways, and undeveloped lands that link regional ecological corridors to the city. In Ontario, a structure of related land-use policies informs urban open space planning and development. In this study, a policy analysis, a case study, and an evaluation of policy development were undertaken to investigate the outcomes of the Red Hill Valley Parkway Project in Hamilton, Ontario. The methods employed were a document analysis, key informant interviews, and a policy analysis using an established policy evaluation framework. This study identified institutional learning by Project stakeholders and investigated if this learning had informed policy development at the provincial level. Results show that the Open Space Replacement Strategy and the creation of the Joint Stewardship Board are evidence of institutional learning. Lessons from this Project have improved Hamilton's planning practices, but have not directly influenced provincial policy development to date.

Chorley, Paul. [Exploring a Model for Sustainable Design: An Urban Agriculture Autoethnography](#). MLA Thesis. 2016. Advisor: R. Brown.

As a model for landscape design, this paper explores urban agriculture practices in student off-campus housing. Food is a basic human need, the foundation of modern civilization and many of us take it for granted. In addition, industrial agriculture is the primary cause of transforming Earth's environment and a catalyst for separating humans from nature. Individuals, societies and cultures must adapt with ecologically designed landscapes and climate-smart food systems. Through my lived experiences as a student, landlord, researcher and the creator of a memorial garden, I explain how meaning in our landscapes engages our communities and encourages pro-environmental behaviors. Institutions, landscape architects, and their clients, have the power to develop communities of sustainable practice and inspire stewardship at a neighborhood scale. This paper concludes that student

rental properties, like many unexplored opportunities, can contribute to urban resilience, by integrating ecological principles into places of economic, social, political and intellectual activity.

Coupland, Kearney. [Accessible Design: Private Practice Landscape Architects as Public Interest Designers](#). MLA Thesis. 2016. Advisor: K. Landman.

As a profession, Landscape Architects have a responsibility to design for the good of the public and are equipped with the skills to engage communities and translate ideas into physical reality. This research aims to increase the effectiveness of private practice Landscape Architects as contributors to public interest design through a better understanding of the organizational models and methods being used in practice. Through an analysis of the literature and data collected from interviews, this research articulates the challenges and opportunities of Landscape Architecture firms formalizing design initiatives and developing non-profits. The research identifies processes and resources that differ from traditional commercial practice and presents the value that public interest design can add to the future of Landscape Architecture.

Cutten, Keith. [Exploring the History of Golf Course Design](#). MLA Thesis. 2016. Advisor: R. Brown.

Golf's future is in question. Fewer people are participating, environmental restrictions are altering construction and maintenance practices, and improved equipment technologies have necessitated longer golf holes increasing management and playing costs. There is a lack of research examining the influence that golf course architecture has had on the evolution, and current state, of the game of golf. This study explored connections between the evolution of golf architecture and external influences such as technology, media, social trends, the economy and allied professional fields. A decade-by-decade breakdown revealed 10 eras and 8 schools of design. This process led to the recognition of two high points in the evolution of golf course architecture, one pre-WWII and one on-going since 1995. Questionnaires were sent to 35 leading designers, from which aggregate findings were compared to writings of 35 pre-WWII designers. Themes were distilled which suggested a correlation between both high points of design practice.

Dawson, Corey. [Evaluating Landscape Architectural Grading Designs with a Terrain Complexity Index](#). MLA Thesis. 2016. Advisor: R. Corry.

Natural landform shapes efficiently organize materials and functions with slope forms evolving towards stable states called equilibrium. Slopes have linear, convex, and concave forms with concave being the most stable and linear the least. More complex, heterogeneous shapes control runoff allow biodiversity and are attractive. Landscape designs can alter terrains with surface geometry for drainage and safety objectives based on grading standards. Land forming designs diversify slopes while conventional grading implements more simple, homogeneous shapes. My project evaluated alterations from grading designs by comparatively analyzing existing and proposed terrains. A data sample of 17 landscapes were gathered from landscape architects, analyzed with a Compound Terrain Complexity Index (CTCI) that calculates surface area ratio, curvature, elevation variance, and relief, generating a proportional terrain complexity change. Results identified the CTCI as a useful measure of terrain complexity change, showing samples of increased and decreased values. Total curvature was influenced most by grading tendencies.

Hamelin, Calen. [The Potential of Lost Space: A New Model for Identifying, Classifying and Transforming Urban Void Space](#). MLA Thesis. 2016. Advisor: L. Harder.

Urban void space, or lost space, has been discussed within landscape architecture, planning and urban design for centuries, but often goes unnoticed and underutilized. With city populations growing, there is increased pressure to provide outdoor spaces for inhabitants. This study aims to identify and categorize the Downtown Guelph Urban Growth Centre's void spaces, while highlighting their potential for possibly becoming new public space. Furthermore, various intervention strategies, pop-up, pilot or permanent (PPP), are demonstrated as a transformation framework for these challenging spaces. A gap

analysis was used to identify the spaces and to highlight their potential, while the categories were formed using a morphological analysis. Finally, three case studies demonstrated the intervention strategies of the PPP Framework. The analyses showed that most void spaces have potential and that there are benefits to using a PPP Framework for transforming them into public spaces within our cities, both temporarily and permanently.

Maxwell, Alison. [Investigating the Performance of Simple Rain Gardens Created in Existing Soils: An assessment of 5 case study rain gardens in Guelph, Ontario.](#) MLA Thesis. 2016. Advisor: L. Harder.

Rain gardens are a form of sustainable stormwater management which detain stormwater and facilitate its infiltration. Many studies on rain garden optimization have led to guidelines for the creation of highly technical rain gardens (TRGs) being widely available from authorities on LID construction. However, these requirements are often unrealistic for small-scale projects and present barriers to their implementation. An alternative to TRGs are simple rain gardens (SRGs) that have no underdrain and are often created in existing soils. Many municipalities now provide guidelines for SRG design, but little research on their functioning has been reported. This investigation measures infiltration rates, soil composition, and sizing of five case study SRGs in Guelph, ON and assesses their performance via percentages of influent stormwater detained, and total volumes detained annually. Analysis reveals three of the five case studies to be performing at full capacity and positive contributions to stormwater management from all.

Maicantis, Phaedra Maria. [Gender and Sexuality in Design: Discourses on Gender, Sexuality and Inclusivity in Community Design and Analysis of Theoretical Frameworks for Gender-Neutral and Gender-Sensitive Design.](#) MLA Thesis. 2016. Advisor: C. Paine.

Exploring issues of gender and sexuality in landscape architecture is lacking in theory and practice. The purpose of this research is to reconcile the role of landscape architecture with socio-political facets and its role in community design, with a focus on gender and sexuality. The intent is to examine and challenge ingrained design assumptions about how spaces are perceived, used and designed in landscape architecture. As issues regarding gender and sexuality increasingly become visible and demographics change, with it arises new opportunities as values and needs experience a dynamic shift. It is within this new paradigm that landscape architecture can share an influential and relevant role in shaping and designing spaces to create greater inclusion, through an examination and compilation of available data and gender-neutral and gender-sensitive frameworks, case studies, and a comparative analysis of existing design guidelines in landscape architecture.

O'Brien, Tim. [Small Unmanned Aerial Vehicles as Remote Sensors: An Effective Data Gathering Tool for Wetland Mapping.](#) MLA Thesis. 2016. Advisor: C. Paine, L. Harder.

This research compares an Unmanned Aerial Vehicle (UAV)-facilitated wetland data collection technique to conventional methods using measures of convenience, cost-effectiveness, and precision. The increasing risk surrounding Ontario's wetlands is due in part to the inefficiencies of current data collection techniques. A small UAV was deployed to survey and collect imagery data from a wetland complex in Wellington County, Ontario. Orthomosaic imagery, and digital model samples were generated using spatial analysis software. Collected imagery displayed finer data resolution than conventional aerial imagery and can be considered more comprehensive and precise in collecting delineation data, including ground water, vegetation patterns, and habitat. The single user approach demonstrated time and accessibility convenience over labor-intensive field studies, and at a competitive cost. For landscape architects and related professionals, this remote sensing approach advances landscape comprehension and provides a precise, accessible, and affordable wetland data collection method.

Palmer, Luc. [A Critique of the Planting Design of Corktown Common Based on Principles of Ecologically-Informed Plant Communities in the Urban Core.](#) MLA Thesis. 2016. Advisor: C. Paine.

Informing planting design with ecological principles can develop plant communities that require less maintenance and resources in cities. This thesis relates contemporary literature to practice to build an understanding of the limitations and potential for ecologically-informed plant communities in the urban core. A critical review of contemporary literature surrounding ecologically-informed plant communities uncovered principles that balance form and function in the urban core. These principles were used to critique the planting design of Corktown Common located in Toronto, Ontario. While the critique revealed that Corktown Common provides multiple benefits both environmentally and socially, the ecological realities of the urban core are in opposition to the plant selection, which was based on regional habitats. Results support that designing plant communities in line with the social and environmental context of the urban core will create more efficient and culturally significant public greenspaces.

Shantz, Stephanie. [Environmental stewardship via landscape conservation planning, yields beneficial results for water quality in an agricultural watershed.](#) MLA Thesis. 2016. Advisor: R. Corry.

Agriculture is one of the largest non-point source polluters contributing to the degradation, toxicity, and damage of the Great Lakes. Trends in agricultural management practice have shifted over the decades to a more holistic system of conservation agriculture that functions on the tenets of landscape conservation planning, protecting the environment for future generations, while also protecting revenues and lifestyles of the people that work in agriculture. This study uses geophysical characteristics to reconfigure land cover in an agricultural watershed known to have water quality issues, while maintaining field boundaries and management, composition proportions, and it takes no land out of production. Using AnnAGNPS a base and designed scenario were created, run, compared, and analysed. The design resulted in a decrease of estimated parenthetical values of pollutants. Empirical results show that this design approach reduces the impact of agriculture on the environment while maintaining profitable production land. Working at this scale while using and producing empirical data, suggests water quality improvements are possible through evidence-based landscape architecture that maintains agricultural land covers changing only some of their locations.

Stewart, Christian. [PATH as Place: Exploring the Concept of Place in Toronto's Grade-Separated Pedestrian Network.](#) MLA Thesis. 2016. Advisor: N. Perkins.

This thesis is an investigation of the concept of place in relation to Toronto's PATH network. Toronto's extensive grade-separated PATH network is devoted entirely to pedestrians but is often derided as an example of a landscape that is disorienting and devoid of identity. Despite its heavy use, it is said to lack "place". This exploration seeks to determine the extent of the PATH's quality of place. To discover this a review of the literature was undertaken to define established place models and determine limitations in their applicability to this study. Themes derived from the literature were then applied to a photographic and historical analysis of the PATH. After a synthesis of the findings was performed the results showed the PATH's sense of place is measurable, but its definition is nuanced and complex.

Thomas, Megan. [Connecting Youth to Nature: Exploring the Plausibility of a Nation-Wide Youth Conservation Program for Canada.](#) MLA Thesis. 2016. Advisor: S. Kelly.

Canada's national parks are faced with the dual-mandate of providing recreational opportunities without compromising ecological integrity. In an era of unprecedented global environmental change and excessive electronic attachment, today's youth are experiencing disconnect from nature. At the same time, parks are challenged with malefic financial constraints and limited human resources. Though independent issues, this study sought to find an integrated solution by exploring the plausibility of a sustainable conservation program that provides opportunity for both youth and Canadian parks through an untapped workforce. Strengths of the U.S. based Student Conservation Association were embraced

to develop criteria to analyze additional youth engagement programs. Review of literature and key informant interviews framed programmatic recommendations that inform development of a nation-wide youth conservation program suitable for the Canadian context. Through hands-on service to the land, the experience could foster Canada's next generation of environmental stewards serving, and ultimately protecting, Canada's park system.

Waffle, Alexander. [Urban Agricultural Hot-Spots: Taking Advantage of the Urban Heat Island for Production of Warmer-Climate Crops.](#) **MLA Thesis. 2016. Advisor: R. Brown.**

Much attention has been placed on reducing the Urban Heat Island (UHI) effect but few have proposed taking advantage of it. This thesis investigates the potential for growing food crops in hot urban microclimates even though they would not grow successfully in the surrounding rural area. Growing degree days (GDDs) and grapevine winter hardiness illustrate how the UHI might affect plant growth in Toronto, Ontario, using local climate data. Modelled leaf temperature is used to analyze urban microclimate variability and the added implications for plant growth. GDDs in Toronto have increased from an average around 1000 in the mid-1800's to an average around 1500 today, remaining unchanged in a rural control. The urbanization of Toronto has caused longer, hotter growing seasons, and warmer winters. Given the appropriate microclimate combined with UHI effects Toronto could likely support the growth of warmer-climate crops that would not otherwise grow successfully in Ontario.

Williams, Laura. [Floral Lawns: Developing and Evaluating a Residential Lawn Alternative for Southern Ontario.](#) **MLA Thesis. 2016. Advisor: R. Brown.**

Residential landscapes in Canada and the U.S. are dominated by turfgrass. The consequences of this include diminished biodiversity, reduced rainwater infiltration, increased irrigation and widespread overuse of fertilizers and pesticides that degrade water quality and impact wildlife populations. This study develops and evaluates a lawn alternative that achieves functional and aesthetic performance similar to turfgrass while addressing the limitations of lawns. Floral lawns – designed and developed using a selection of low-growing herbaceous perennials adapted for the conditions of southern Ontario – were displayed at Canada Blooms 2016 and evaluated by a questionnaire administered at the event. Results of the study found no significant relationships between demographics and preference for the floral lawn. 77.6% of respondents preferred the appearance of the floral lawn over turfgrass and artificial turf; 75.4% would consider installing a floral lawn. This study could help alter the North American reliance on turfgrass lawns in residential applications.