This Folio represents a selection of design studio and graduate course work of the Department of Architecture in the Faculty of Architecture at the University of Manitoba in Winnipeg, Canada.

For more information about our school, please visit our website: http://umanitoba.ca/faculties/architecture/programs/architecture/index.html

In summer 2018, the design studios in the Architecture2 Building were refurbished with support from a $1.3-million University of Manitoba learning space renewal fund. While the entire environment will feel refreshed, the new worktables will offer students the most direct encounter of disciplinary renewal.

Before the old tables were tossed, I snapped some pictures of their well-worn surfaces. For sixty years, these tables supported students in their efforts of heuristic making, drawing and thinking – serving as silent witnesses to a continuous life of learning and discovery.

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INTRODUCTION

People, place and passion make our architectural program unique, imaginative and real. Our urban-prairie setting is Canada’s central crucible of creativity and cultural complexity, offering fertile grounds for work that is as artistically ambitious as it is socially and environmentally responsible. Our faculty and students are dedicated to advancing the discipline, and everyone shares a passion for hands-on making and research.

We explore, discover and learn through making.

The core of our curriculum is the design studio. This is the place where thinking and doing converge in heuristic acts of making and world-making. In studio, students work through a variety of challenging questions, media and scales to explore vital tensions between technical and natural processes, cultural and artistic practices, experiential qualities and worldly phenomena. Design studio enables individuals to experiment widely, while ultimately making responsible design decisions for local situations in a dynamically interconnected world.

Studios are augmented by a complementary array of making and thinking facilities: a FABLab, CADLab, Workshop, Architecture/Fine Arts Library, and Centre for Architectural Structures and Technology (C.A.S.T.). Architecture students benefit from interactions with colleagues in our Faculty’s kindred disciplines (Environmental Design, Interior Design, Landscape Architecture and City Planning) and across the University. Architecture students design everything from adaptable furniture to sustainable cities, from enduring buildings to transformative events. In the process we learn how the built environment not only supports and enhances lived experience, but is also meaningfully shaped by personal and collective imagination.

Students are fueled by their own expanding curiosities and convictions, guided and challenged by professors engaged in diverse research, and invigorated by conversations and collaborations with professionals, industry partners, community members, and international leaders in architecture and design.

This academic year was especially rewarding for the Department of Architecture. Effective July 1, 2018, our Master of Architecture program earned a full six-year accreditation from the Canadian Architectural Certification Board (CACB). This is the best possible result, following intense years of collaborative efforts toward implementing curricular and administrative refinements. Preparations entailed extensive consultation with faculty members, students, staff, alumni, and members of the professional community. Valuable insights were gathered via four outreach sessions with regional practitioners and Council members of the Manitoba Association of Architects (MAA), and through an alumni survey, with over 150 participants who graduated between 1964 and 2017. While there are always ways to continue improving a school, our entire architectural community can be proud of this accomplishment.

One way we are continuing to enhance our academic programs is by integrating Cooperative Education. In 2017-18, students participated in the pilot year of this new program, with summer work placements in Winnipeg, Selkirk, Toronto, Edmonton, Victoria, and China. In the encouraging words of a keen employer:

“The Co-op program is a great opportunity for the university and the profession to connect. Grounding students with real-world scenarios can be a huge eye-opener and by no means does this diminish the exploration offered through their academic experience. Similarly, it’s a great opportunity for practitioners to be reminded about where they came from and that architecture is most fruitful when ideas and exploration are integral to the practice.”
- Glen Gross, Architect at 1x1 architecture inc.

To celebrate and further invigorate our community of shared learning, the following pages feature student work and pedagogical approaches from the 2017-18 academic year. Enjoy!

“The ultimate purpose of architecture is community.”
- Brian MacKay-Lyons
It is possible to glimpse that other forms of knowledge exist outside the present…

- Excerpted from Studio Brief
In prefacing The Order of Things, Michel Foucault writes that he is moved to laughter by this passage found in Jorge Louis Borges short essay “The Analytical Language of John Wilkins.”

The starkly absurd and seemingly incompatible taxonomy of these listed animals breaks our will to believe that such orders and phylum could come from intellect or logic. Foucault rightly asserts however that texts so distant from our frame of reference defy our assumptions about objects and what relationships are capable of bonding them. By displacing ourselves from the singular viewpoint of the present however, it is possible to glimpse that other forms of knowledge exist outside.

This Studio endeavors to both feed and challenge contemporary fascinations with the notion of object and its role in architectural processes. In their study of the city and place, investigations depart from a current climate which champions the primacy of the singular image and privileges the architectural object as an inscrutable entity in order to access more intimate potentials of architectural thought and practice. Students are asked to examine the role of object in creating space, finding meaning, building or appropriating taxonomies, and ultimately sculpting the action of the built world.

Beginning with close readings of Michel Foucault’s The Order of Things, work within the studio is meant to draw parallel lines between modes of conversation and thinking with practices of drawing and building. As exercises accelerate in complexity and scale, initial considerations of material natures, representation, contextual sensitivity and the qualities of place require questioning anew and reframe previous assertions. Embracing the strange and sometimes unwieldy intersections of architecture’s physical nature with social, economic and historical forces is a priority for all work conducted. Such contaminations and outside influences are not incidental or distractions but rather a path to richness of design.

The studio’s work is broken into 3 distinct but cumulative projects as follows:

1. An examination of selected neighborhoods of Winnipeg using process of collection, observation and hybridization to generate “chimeric” studies of site.

2. A development of speculative propositions for public wash/bath/rest rooms in previously studied sites as a means of unpacking previous discoveries.

3. Research and design of larger scale public architecture proposals for the Pointe-Saint-Charles neighborhood of Montreal and an exploration of humane or generous architecture in public spaces.

“These ambiguities, redundancies and deficiencies remind us of those which doctor Franz Kuhn attributes to a certain Chinese encyclopedia entitled ‘Celestial Empire of benevolent Knowledge’. In its remote pages it is written that the animals are divided into: (a) belonging to the emperor, (b) embalmed, (c) tame, (d) sucking pigs, (e) sirens, (f) fabulous, (g) stray dogs, (h) included in the present classification, (i) frenzied, (j) innumerable, (k) drawn with a very fine camel-hair brush, (l) et cetera, (m) having just broken the water pitcher, (n) that from a long way off look like flies.”

- Jorge Louis Borges, The Analytical Language of John Wilkins
1-5: Austin Dorn - Chimeric assemblies (1-2); Found Hybrids as Navigational Instruments (3-4); Stockyards Lookout Tower and Toilet Section (5)
1-5: Holden Reich - Green Room Basement Plan (1); Green Room Main Floor Plan (2); Green Room Second Floor Plan (3); Rear Yard Section (4); Rear Yard Interior Model (5)
Taylor Blenduke - Overpass Cafe Section (1); Train Bridge Market Elevation (2); Market and Bar Site Plan (3)
Certainly, (deviant acts) prods the bounds of the thinkable. The horrible, like the mad, presents the world as it might be. It is utopianism without utopia, planning without plans. It speaks of the present in the future tense, and through a kind of inversion—like the words of a fool, it is that which cannot be said under normal circumstances.

- Comaroff & Ker-Shing, *Horror in Architecture*, p8
American photographer and artist, Gregory Crewdson is known for his carefully constructed tableaus of the everyday domesticity of suburban life. His photographs illuminate the liminal space between the natural and the artificial, staging real sites with artificial lighting and a quiet disorder, resulting in an eerily re-presentation of what we comfortable all know as “normalcy”.

In this Studio, students began by probing the similarities between precedents similar to Crewdson’s photographs and the conventional Architectural representation. We questioned the long equated cleanliness and order that Architects speak as “poetic”.

Students participating in this studio were invited into the uncomfortable world of deviant acts and outrageous behaviors. Seeking to understand and value the irregular; to be apprehensive of appearances. The studio encouraged a bravery to look beyond the normative and into the uncomfortable world of the exception.

In the first term, the studio examined ‘Site’. The concept of Site, is often referred to or understood as the site of the studio project that is “out there” in the world beyond studio, by-passing the conditions and materials of that particular place. Some would argue that this is in some way a symptomatic response to the Architects desire to create order in the world around us, to engineer appearances. The result is often a dislocated understanding of the world beyond the picturesque, or the beautiful. Pulling the curtain closed to the abnormal and the grotesque.

Encouraging acts of rebellion; students were given two “deviant” Sites in Winnipeg. Beginning with a careful analysis of the existing conditions of Site, students produced a series of exquisitely drawn architectural illustrations (plan, elevations, sections) surveying the conventional language of architectural drawings and their (in)ability to re-present Site.

These initial drawings of quantitative assemblages, were then dissected as the students begin their descent into the deviant analysis of the “abnormal”. From here on in, students were challenged to look beyond the Site of first appearances; both on Site and in the Site of the studio. Questions surrounding the occupation of Site, scale, situation of place, and material were pursued. The studio was encouraged to continuously pursue the atmospheric space beyond the scaled representation, escaping from the liminal space between order and appearance, extending into the material world of the curious and the estranged.

Projects
01 THE SITE; analysis
02 Undisciplined Drawings
03 a Temporary proposition
04 site + material + verb + program

“As architects, we are united in our love of the physical world. We like to touch and make real things.”

– Billie Tsien
1-5: Oceane Perham - Material Studies - rusted metal + fabric (1-2); Section (Seasonal Indigenous Gallery/Gathering space) (3); Elevation (4);
1-5: Brandon Bunkowsky - Material Studies - concrete, mycelium + fire (1); Section Detail Studies (2-3); Final Model (4); Plan (Public Park Pavilion) (5); Final Model (6)
1-6: Reanna Merasty - Material studies (stretched animal hide, fabric, burlap, wax, plywood) (1); Concept models (2-4); Final Sections (Gathering space/learning centre for Indigenous youth) (5-6); Working model (7); Final model (8);
Liane Thomson - Final Section (“Humane” Slaughter House/Farmers Market + Butcher Shop) (1); Final Elevation (2); Final Model (3)
1-5: Ralph Gutierrez - Elevation (1); Interior Perspectives Of Final Model (“Cinemarket”) (2-4); Plan (4)
Ralph Gutierrez - Concept Collage (1-2); Final Model (Experimental Cinema + Coffee Bar) (3); Section (4);
1-3: Patrick Fung - Plan (Boat Launch/Public Pavilion) (1); Elevation (2); Section (3); Concept Model (4)
In the contemporary city, we can no longer see public spaces with reference to a notion of urban, functional or semantic structure, as we did in the years of structuralism but, like the Greeks, we need to read civilised space as a topological, tactical order.

- Manuel de Solàorales
**SOCIAL INFRASTRUCTURES**

Social Infrastructures is a studio that explores the connections between architecture and urban space through the context of spatial social relationships. How architecture can contribute to the advancement of the city through structures serving as agents for social change? The studio is organized through a series of projects that have a clear social mandate, all operating within the analogy of practice, with the exploration of existing sites and real clients. All the projects address the urban nature of architecture, and the complexities of public space through the perspective of the “social.” “Social” here is not understood simply as “low income architecture for the people,” but instead taps into questions related to urban collectivity, dynamics of public space, interior urbanism, connection between the building and the city, and yes, invention and technological innovation.

The “social” in the Social Infrastructures studio doesn’t imply that creativity and experimentation are relegated to a second plane. Arthur Drexler, Director of Architecture and Design of the Museum of Modern Art in New York, summoned up the vision of this studio on what he said in 1960: “The true visionary project usually combines a criticism of society with a strong personal preference for certain forms. In the past such projects were unbuildable for one or both two reasons: they may have been technically impossible to execute at the time they were designed or “society could neither the justification nor the money for their construction. Today, virtually nothing an architect can think of is technically impossible to realize. Social usage, which includes economics, determines what is visionary and what is not... Visionary projects, like Plato’s ideal forms, cast their shadows over into the real world of experience, expense and frustration. If we could learn what we have to teach, we might exchange irrelevant rationalizations for more useful critical standards. Vision and reality might then coincide.”

Social Infrastructure studio investigates the potential of new architectures in response to the urban complexities. An architecture “in response” does not consider the object in isolation but see the design as process which tries to learn “how we live together.” To explore an intense social context framed by the complexity of history, economics, culture, and urbanity this studio’s field trip went to Mexico City. Mexico City served as a complex laboratory of relationships, while back home we work in several collaborations and community-oriented design projects.

But I absolutely believe that architecture is a social activity that has to do with some sort of communication or places of interaction, and that to change the environment is to change behaviour.

- Thom Mayne

Public Space & Urban Design is also a focus in our studio, and this year we have introduced the notion of Non-public, that in fact public space doesn’t exist. Non-public reclaims the return of a post-urban possibility to reflect on other notions of “public,” seizing upon the dynamics of the beach, looking back to the city, and through the example of Copacabana we proposed strategies leading to other positions, another design, another public approach to space, reclaiming the urban precinct to a new constituency, to invest on the promise of a new role for urban design, architecture and urbanism as new forms of resistance. In this process the individual student engages with the collective through a new agency, becoming active in the process of decision-making. Successful public spaces, we observed, will be the ones that promote quietly and seamlessly this unanimity of true collective public value, without having to forcibly justify or impose any structure that might at the end become its opposite signifier: non-public. Then we are able to transform our collective imagined worlds in genuine public spaces again.

Eduardo Aquino
Community Table. Students: Nicole Buzza-Puritch, Jayme Contant, Nicole Luke, Tianna Markowski, Yang Peng, Chenqu Zhao

Community Table at J. A. Russell lawn
1-4: Yang Peng, Public Resting Pavilion at Zocalo, Mexico City
1-4: Chenqu Zhao, Light Pavilion at Plaza Mariana, Mexico City
School of Art Sculpture Workshop Shed: Nicole Buzza-Puritch, Jayme Contant, Cornie Friesen, John Gray, Nicole Luke, Tianna Markowski, Darian McKinney, Chenqu Zhao, and Yang Peng
1-3: John Grey, Residential Building in La Condesa, Mexico City
Public space research in Mexico City, Nicole Buzza-Puritch, Jayme Contant, Cornie Friesen, John Gray, Nicole Luke, Tianna Markowski, Darian McKinney, Chenqu Zhao, Louisa Fontaine, and Bryan (Jin Long) He.
Sail on, sail on
O mighty Ship of State
To the Shores of Need
Past the Reefs of Greed
Through the Squalls of Hate

- Leonard Cohen
This studio continues the exploration of the idea of “exchange” in architecture: sensually, spatially, materially, economically, politically and socially. Critical to an ethical notion of exchange is the notion that all transactions are reciprocal and mutually beneficial. However, in the current geopolitical situation – one of increasing authoritarianism, nationalism, inequity, climate disruption and mass migrations – the benefits of exchange are less apparent.

Term One: WALLS: THRESHOLDS & BOUNDARIES

In the Age of Trump, it is imperative to explore the architectural potential of walls – how in myriad ways, “walls” as thresholds, membranes and boundaries can mediate our social and spiritual co-existence and bring beauty and exchange to life in the polis.

The first series of short exercises was predicated on the notion “decontainerization” as posited by Gordon Matta-Clark. Students employed photography and collage to investigate the potency of walls and limits.

The main project of the term, a “mediating wall” to be designed for two conflicting neighbours in a Winnipeg community, proceeded along several stages. First, the students selected and studied a site: the liminal space between two existing houses. Second, using the device of a “found object,” they devised a scenario around an imagined conflict between the adjacent neighbours and/or their families. For the final phase, the students designed a “mediating wall” between the neighbours’ properties based on the particulars of the conflict. A full-scale prototype of the construction of the wall accompanied the final design.

Term Two: PAVILION OF REFUGE

In the wake of the social, political, religious and economic instability caused by war, environmental hazards, political extremism and elections, the world is facing uncertainty in the wake of great migrations of refugees. Thus, the second term entailed the design of a Pavilion of Refuge based on research undertaken during a field trip to Montreal. The Pavilion was to provide a place of respite for the increasing numbers of migrants and itinerants cities must accommodate. The Pavilion will be – as per Leonard Cohen, one of “the holy places where the races meet.” The proposals were designed for one of three possible sites in Montreal: the empty corner of Mount Royal at Saint-Laurent Boulevard; the vacant site on Rue Saint-Denis at Avenue des Pins; and an abandoned lot on St Laurent south of Rue Sherbrooke.

Each Pavilion had to include: [1] a two-story hall or “a beautiful room” as a space of respite -- a place in which to be part of a greater whole, and also in which to seek solitude; [2] a small garden for either growing food or the pleasures of nature; and [3] a communal eating function -- a small café, teahouse, public dining room, soup kitchen, or the like.

The Pavilion of Refuge should: provide warmth in winter, coolness in summer; respect the history and material culture of Montreal and its inhabitants; and, anticipate those who seek “shelter” and “sustenance,” as well as offer “refuge” from war, poverty, persecution, homelessness, dislocation, alienation, and loneliness. This Pavilion must be beautiful, culturally sensitive, accommodating, open and safe.

ARCHITECTURE OF EXCHANGE

Before I build a wall I’d like to know
What I was walling in or out,
And to whom I was like to give offense.

- “Mending Wall” by Robert Frost
1-4: Decontainerization Photos & Collages: (1) Nicole Bohdanovich: Photo; (2) Keven Sawatzky: Collage; (3) Mackenzie Skoczykas: Collage; (4) Nicole Bohdanovich: Photo.
5-6: Mackenzie Skoczykas: (5) Threshold Collage; (6) Threshold Diorama.
1-7: Nicole Bohdanovich - Mediating Wall Project (Clockwise): (1) Found Object; (2) Sketch of Moving Tile Wall; (3) Elevation of Wall; (4) View of Bird Nest Swivel; (5) Built Prototype of "Tile Window;" (6) Model of Wall; (7) Close-up of Bird Nest Swivel.
1-5: David Lang - Mediating Wall Project (1) Model of Wall; (2) Plan; (3) Vignette showing shared fire vessel; (4) Neighbours inhabiting Wall; (5) Prototype of firewood storage; (6); Grant Patriarca - Mediating Wall Project; 7-8: Siyuan Li - Mediating Wall Project (7 & 8) Plan & Model of Wall.
1-3: Alexander Bartmanovich - Mediating Wall Project (1) Model; (2) Model in Context; (3) Partial Axonometric;
1-5: Alex Bartmanovich - Pavilion of Refuge, Montreal: (1) Site Rendering; (2) Sketch of Atrium; (3) Sketch of Communal Hall; (4) Model as seen from Rue St-Denis; (5) Section.
1-2: Kevin Sawatzky - Pavilion of Refuge, Montreal: (1) Model in Context; (2) Conceptual Sketches;
3: Nicole Bohdanovich - Pavilion of Refuge, Montreal: (3) Elevation from Avenue des Pins.
1-3: Siyuan Li - Pavilion of Refuge, Montreal: (1) Site Model; (2) Elevation from St-Laurent Blvd.; (3) Rear Elevation.
4: Mackenzie Skoczylas - Pavilion of Refuge, Montreal: Model;
5: Dexin Xie - Pavilion of Refuge, Montreal: Site Section through Pavilion.
1. a giant structure is wheeled out the front door for a parade;
2. kids gather in the mezzanine to hang out at the café;
3. the interior part of the stage is used for shows during the winter;
4. kids sit at tables talking & watching the stage;
5. some kids are hanging out in the quiet room for some time alone;
6. others head upstairs to work on the performance & theatre crafts;
7. kids work at the tables on painting, clay, shadow puppets & sculptures; giant boards are wheeled around which the kids paint on;
8. it is summer & people spill outside to work on crafts on the patio;
9. a performance is set for the evening so people have gathered on the amphitheatre seats.
Pontagon was a collaboration by the Environmental Design and Architecture Masters Preparation programs, facilitated by the instructors Eduardo Aquino, Chad Connery, Terri Fuglem, and Liane Veness, representing the Faculty of Architecture at the 2018 Warming Huts Art & Architecture festival at The Forks in Winnipeg, Manitoba. The team is comprised of the 4 foundation year architecture studios and 40 students. In past iterations of the project, teams have endeavored to explore an immense range of imaginative possibilities for notions of “warming hut” on the frozen surface of the Red River. The 2018 design team was provided with a unique opportunity to collaborate with the City of Winnipeg. The design team was given the task of generating a hut that could act as a public provocation of the future Osborne to Downtown Walk Bike Bridge, which is currently in its public consultation and engagement phase.

Pontagon is a hybridism generated from the words pentagon (five-side polygon; gon as in angle) and pont (bridge in French), to designate a five-part bridge conceived in angles. A more specific program and site provided a sharp departure from the usual modular format and warmth specific program of the International Warming Huts competition. Instead, the team was engaged in a dialog of connection, conversation, and multiplicity. The design team’s process was a focused discussion of fire, light and auditory or visual stimulus as phenomena that might act as connective agencies. The idyllic gathering place of a fire pit, the image of warmth, and the legibility of that image at a distance motivated studies of reflection, projection and color as possible design tools. Through a research process and iterative modeling, the design was generated as a distillation of the following phenomenal criteria: Dichroic reflective/projective surfaces; Fragmentary geometry; and Multiplicity of form.
We actually never talk about form in the office. We talk about construction, we can talk about science, and we talk about feelings [...] From the beginning the materials are there, right next to the desk [...] when we put materials together, a reaction starts [...] this is about materials, this is about creating an atmosphere, and this is about creating architecture.

- Peter Zumthor
"Whether a context is to be embraced or ignored it must first be understood. Through understanding a site, the architect makes connections that others might miss; identifying opportunities for function, delight and beauty in the most unlikely of places. Understanding what makes a place operate requires the architect to reveal its layers; to ‘delaminate’ and ‘disentangle’ the connections and systems that define its physicality. Within the context of the unit the skill of the student-architect is then to reconnect these layers/connections in a meaningful way through a new building that is original, innovative and ‘extra-ordinary’.”

- Matthew Springett & Johan Hybschmann

Architect Peter Zumthor rejects the importance of form in the creation of his architecture, instead choosing to focus on materials and the creation of atmosphere. This is not a romantic notion but a desire to create places that evoke feelings. These experiences as Pallasmaa suggests, exist in both the mental and physical world. They engage all our senses letting us know we are present in the world and part of something larger. The studio is a place of making, using play as a process of research. The intent of this studio was to explore the role of embodied presence within materials and how their unique or mundane use can develop atmosphere: spaces charged with emotion, spirit and experience.

In the first term, students built upon their initial research of materials, construction and the development of meaningful spaces by participating in the Architects without Borders Indigenous Housing Ideas Competition for Remote Access Housing. Students joined in the effort to raise awareness of indigenous housing situations throughout Canada, with the hopes of improving opportunities available to design, deliver and maintain housing for remote access indigenous Canadians. Students examined the current housing model and engaged with Indigenous community leaders for insight into the functional and cultural needs of the people. With the intention of creating meaningful designs that participate in the lives of the people, drawing from the culture and the place while avoiding the projection of preconceived design solutions and building techniques.

Throughout the second term, Students were tasked to design and develop a site for a multipurpose facility in Shoal Lake 40, a small first nations community that has been working for decades to improve the economic viability and quality of life. Through playful inquiry and experimentation, students imagined the needs and possibilities of the community after the completion of Freedom Road. Through a self-determined program, students were tasked with subverting the ‘ordinariness’ of conventional design process, interpreting them through inventiveness and creative making. Functional programming determined and refined the relationships between interior, exterior and site, while intense making explored the transformation from architectural concept to architectural proposition, testing ideas through production. The inherent collaboration of architectural practice was explored through student interaction with client, peers, and instructors.

“We urgently need to understand that we do not live separately in physical and mental worlds – these two projections are completely fused into a singular existential reality. As we design and build physical structures, we are simultaneously and essentially creating mental structures and realities. Regrettably, we have not developed much understanding of and sensitivity for the interaction of our outer and inner landscapes.”

- Juhani Pallasmaa, New Architectural Horizon
1-5: JP Austria - Shoal Lake 40 (1); Site Plan showing homes and incinerator (2); Restore Houses celebrate waste as opposed to denounce it, ritualizing the act of disposing physical waste by echoing the cleansing of spiritual waste. (3); Section, showing the interior volume within the solar chimney (4); Section showing the incinerator space, and the sequence of burning the garbage and burying the ashes (5).
1: Jihoon Jo - Inspiration drawing exploring filtration (1); 2: JP Austria - The exterior waste space, with a view from the kitchen and towards the incinerator (2); 3-6: Jihoon Jo - Filter Home Main Floor Plan (3); Night Time Exterior Render - North Facade Facing the Lake (4); Perspectives (5-6).
Devin Dushanek - Hub-Urb addresses the issue of isolation for the inhabitants of Shoal Lake 40. The physical isolation of the island-locked reserve, carries with it need for togetherness, especially for people living in a more temporary or unfamiliar condition, such as those transitioning into adulthood, young families, and the aging population. A community-based environment structured with the layering of spaces from public to private will allow the opportunity for more social interactions and shared experiences between members of the community in shared common spaces that offer the opportunity to draw people together while still maintaining privacy in their own homes.
1: Devin Dushanek - Family in interior private gathering space (1); 2-3: Jianuo Zhou - Active & Passive Solar House Exterior Perspective (2); Interior Perspective (3); 4-7: Aldrin Zapata - Shoalside Landing - Elevation (4); Plan (5); Interior Shower Section (6).
Bianca Dahlman - Tectonic rhythms within Slits and Screens abide to the long-established rhythms of Shoal Lake 40. Humbled by the community’s lake front and boreal forest, the building is subservient to its surroundings. Each architectural move reflects a dialogue with the local landscape. The blending of a single-family home with a flexible commercial space responds to the need for empowerment through housing and economic opportunities. Positioned next to the kitchen with a roll up window, the commercial space is designed to adapt to various programs. Slits and Screens can accommodate a multi-generational family of up to 8 persons and persons with accessibility needs.
1-4: Tia Watson - Permeable House moves towards off-grid homes through passive design strategies and resource sharing (1); Interior Perspective (2); Two homes are connected to share the required amenities for a self-sustainable home. Shared spaces, both on the interior and exterior, will also create the foundation for interaction among community members (3); Main Floor Plan (4); 

5-6: Sarah Dankochik - Sharing Table centers the architecture and home around a table, the modern gathering space (5); Section - each element of the home is strengthened through blurring interior and exterior space (6).
1-3: Katie Lee - Healing House offers a transitional space for those returning to the community after segregation (1); Light Room - a view of the lake, flooded with sunlight (2); Texture Room - light filters through layers of birch bark (3);
4-7: TJ Richard - Floor Plan inspired by traditional Tipi construction (4); Site Plan located along north shore of Shoal Lake 40 (5); Winter Elevation featuring structural wooden posts (6); Interior lighting condition (7).
1-2: Sarabjeet Saka - Youth Housing - North Elevation (1); Section (2)

3-4: Alyssa Hornick - Adaptable Home generates flexible and adaptable spaces that can accommodate multiple generations and changing family dynamics (3); Site Plan and Sections (4).
1-3: Bianca Dahlman - Dancing, singing, and drumming are the heart of Pow Wow celebrations (1); Each segment of the building’s ring features a saw tooth clerestory window oriented in a sunwise direction (2); Weave’s ring shape composed of woven joinery, canopies, and cladding, expresses the fluidity and dynamism of both the people of Shoal Lake and of Pow Wow (3).

4-5: Devin Dushaneek - Dock, view to butcher shop and greenhouse (4); Canvas covered exterior market corridor provides protection from weather and filters incoming sunlight (5).
1-3: Devin Dushanek - Market corridor stalls (1); Exterior butcher shop, view to docks (2); West Elevation (3); 4-6: Alyssa Hornick - The Central Gathering Space opens to the sky, providing a space for pow wow practice, feasts and general exterior community gatherings (4); Main Floor Plan (5); The Education Center integrates into the surrounding landscape, demonstrating the importance of retaining a connection to nature (6).
Architecture not only covers all fields of human activity; it must even be developed in all these fields at the same time. If not, we shall have only one-sided, superficial results.

- Alvar Aalto
ANALYSIS AS DESIGN

ANALYSIS
1580s, “resolution of anything complex into simple elements” (opposite of synthesis), from M.L. analysis (15c.), from Gk. analysis “a breaking up, a loosening, releasing,” noun of action from analyein “unloose, release, set free; to loose a ship from its moorings,” in Aristotle, “to analyze,” from ana “up, throughout” (see ana-) + lysis “a loosening,” from lyein “to unfasten” (see lose). Psychological sense is from 1890. Phrase in the final (or last) analysis (1844), translates Fr. en dernière analyse.

GENUS
(Latin plural genera), 1550s as a term of logic, “kind or class of things” (biological sense dates from c. 1600), from Latin genus (genitive generis) “race, stock, kind; family, birth, descent, origin,” from PIE root *gene- “to produce, give birth, beget,” with derivatives referring to family and tribal groups.


Analysis is a poetic and intellectual form of design. In this studio we will carefully study Modernist civic spaces and works of architecture in Manhattan, NYC to gain a deeper understanding of the city, its people and its history. The etymological root of analysis reveals an articulation of the parts to the whole, where extracted elements communicate an explicit idea in context. Analysis also reveals what cannot be seen nor sensed when one experiences architecture. Students will act as detectives: mining the city to discover its various orientations. The studio involves a careful reading of original theoretical writings from the architects under analysis in order to discover the ideas and concepts that drive their architecture. Students will design, draw, and build extractions to communicate core concepts. Throughout the year, fabricated fictions defining the genetic code of the city and its architecture will crystallize in genetic extractions, or analytic models and drawings. These extractions breed a new authentic urban architecture. Physical and social context, latent histories, unrealized civic proposals, structural systems, programmatic invention, and materials will be interpreted for clues. Anticipating synaesthetic experience through the reading and interpretation of drawn architectural language will invest notational marks and syntax with corporeal meaning. A studio trip to NYC will afford the students immersive exposure to the sites and city. The architectural sites will be documented, studied, experienced, and analyzed. Fragments will be measured with respect to the whole. Students will be encouraged to experiment with forms of presentation and representation in drawing, models and other mediums. A careful reading of Nietzsche’s On the Uses and Disadvantages of History for Life will provide a critical dialogue of how we metabolize history and precedents.
1-5: Eric Decumultan - Abstract Elevation Drawing (1); The program of the intervention is a public forum to engage the public (2); Existing building diagram (3); Analytical Extraction of the occupancy types segregated between their own spaces throughout the building: the public, secretariats, delegates, and the press (4); Form finding diagram (5).
Eric Decumatu - Rendering of intervention (1); A representation of structure, function, and the expression for a directional cantilever towards the water (2); The Open Government addition to the United Nations Headquarters can now hold council meetings for world and city scale issues, political procession for solutions that involves New York and the rest of the world (3).
Aeron Regalado - Identifying the problem - the memorial imposes contemplation rather than allowing a gradual transition (1); Elevation drawings (2); Southeast wing model depicting a variety of spaces (3); Vertical openings ambiguously resemble the twin towers, giving visitors the power to create their own meaning and narrative (4); Level 05 Triangular Platform overlooks the fountain below, the bridge, and the heavy mass above (5); Compression and expansion of space (6).
Aeron Regalado - Columnar light study (1); The column is both structural and a spatial, and houses the "Last Column" remnant (2); ‘Weakness’ through conceal and reveal - walking becomes an architectural device that provokes conscious and subconscious curiosities, always leading the visitor to uncertainty (3); Engagement of the body through openings that conceal and reveal spatial qualities (4).
1-5: Emily Raymond - North Elevation (1); Roof Plan (2); Section Axonometric (3); Tea Room (4); Perspective Rendering (5).
Emily Raymond - A section to understand the bedrock of the Manhattan Island (1); A series of collages were painted and pasted as a communication tool of relating the works of Wassily Kandinsky and the drawings of Frank Lloyd Wright (2); Axonometric of the threshold condition where the joinery of the two structures begins to tell a story within the materials, geometry, and physicality of the bridge (3); Axonometric Collage (4).
1-4: Odudu Umoessien - Initial sketches proposing a structure that ties the track, skywalk and outdoor circulation together (1-3); Description Image (4); Section drawing (5).
1-3: Odudu Umoessien - Interior Rendering (1); The Sky Resort track is oriented in an east-west direction to serve as a compass and a beacon to the people of New York (2); Perspective Rendering of Sky Resort (3).
Connery Friesen - Taking from the program study drawings, an interest was developed in creating a social commentary revolving around the existing tenants of the Seagram building, Wells Fargo bank. The idea was to inhabit these exoskeleton units with a New York vernacular architecture (1); Exterior Perspective with context (2); Vertical village model (3); Front Elevation - Assembly Occupancy (4); Building Elevation (5).
1-4: Connery Friesen - Occupancy diagramming (1); Cross Section (2); As the building is free to use, people would be able to come in with any materials that were at hand, including former factory components (3); Assembly Occupancy (4).
Computers are useless. They can only give you answers.

- Pablo Picasso
This studio focused on the critical role that technology has played in allowing architecture to become agile and responsive to changing conditions of site, program, and the unpredictable. Despite the overwhelming demand for permanence and solidity, architecture’s interest in technological innovation has challenged this approach through an increasing pull towards lightness, efficiency, and adaptability. Advances in material systems, construction techniques and form making have provided architects and citizens of the world with reasons to dream of new ways of creating and inhabiting our personal and civic spaces. Technologies developed in allied industries like aviation, seafaring, and the military have all been exploited, adapted, and reimagined through the practice of architecture. It is through this increased efficiency that architecture has the possibility to respond to a broader and more dynamic range of needs of the city through reduced material mass, greater efficiency in construction techniques and reduced cost.

The research projects emerging from the fall term in the Flexible Futures studio revealed that even within the well-defined and fixed cityscape, there exists innumerable opportunities to provoke and engage with temporary and dynamic conditions that often go unseen. Building from this idea, the winter term studio explored how architecture can engage with these dynamic conditions in order to promote civic engagement, health, and sustainable development practices. Our studio explored this idea by looking at bicycle transportation in our city and on our campus.

During winter term, we partnered with the University of Manitoba Students Union (UMSU) and the University of Manitoba to design and build auxiliary structures to enhance the recently completed UM Cycle Kiosk located on the Fort Garry campus at the University of Manitoba. This project was built to support both the bicycling community on our campus as well as an important infrastructural facility to support the university’s sustainable campus development plan and our active transportation infrastructural network. Our project charged the students to capture the potential temporary events as well as dynamic and changing activities of the UM Cycle Kiosk and support them through a series of adaptable and resilient architecture projects.

The project invited the participation and collaboration with Anna Weier as a project partner and the manager and coordinator of the UM Cycle Kiosk. Through her guidance our studio explored how, based on her and her team’s experience from operating the kiosk for the past year, new structures could be built to enhance the impact of the U of M Bike Kiosk.

The studio was comprised of several teams to develop projects that are able to meet the expressed needs of our UM Cycle partners, including:

1) A secure and weather protected storage facility for bikes waiting to be repaired
2) A secure and weather protected storage facility for bikes to be displayed and sold
3) An information kiosk and resting area for cyclists
4) A workshop facilitation space/classroom with bike stands and secure tool storage

1-3: Dylan Hewlett - Aviation Museum Workshop; (1-2); Model (3);
4-6: Lexi Morse - Model (4); Exploratory Collages (5-6)
1-4: Jony Bailes - Exploratory Drawings (1); Explorations of form (2); Model image (3); Drawing Collage (4);
5-7: Mackenzie Swope - Final Model (5-6); Section Drawing (7).
1-4: Violet Zhiyu Jiang - Exploratory Collage (1); Final Rendering - Aerial View (2); Model (3); Exploratory Collage (4);
5-6: Shuo Yang - Exploratory Collage.
1-6: Meighan Giesbrecht - Exploratory Collage (1-2); Final Circle View (3); Sketch Model (4); Site Plan (5).
1-4: Design Build Studio Project - Group Model (1); Technology Review (2); Working in C.A.S.T. (3); Construction on Site (4).
1-3: Design Build Studio Project - Construction beginning on site (1-2); Construction in C.A.S.T. (3).
4-5: Shuo Yang - Signage rendering (4); Final Signage Design (5).
Jony Bailes - Structural model; Design Build Studio Project
1-5: Design Build Studio Project - Bike Sales Framing (1); Group Photograph (2); Bike Sales structure delivered on site (3); Bike Sales Building from behind (4); Bike Sales Building from front (5).
...the studio explores the intricate relationship between building (understood both as a noun and verb) and the city...

- Excerpted from Studio Brief
This studio explored the intricate relationship between building (both as noun and verb) and the city, with the main pedagogical goals being to gain awareness of the nature and importance of place-making, and to develop abilities in the practice of urban and architectural design. In the academic format and environment of the studio we identified crisis—and opportunities—within modern and contemporary architecture to produce meaningful cities in the context of our post-industrial world.

This studio focused on the broader cultural implications of social interaction and the collective inhabitation of the built and natural environments. Architectural design explorations were influenced by a thorough examination of programmatic, theoretical, historical, technological, material, and environmental criteria. From the start, the central concept of place, and place-making in particular, was considered indivisibly tied to the notion of experience. Attempting a succinct—by force schematic—definition extracted and recomposed from the philosophical tradition of phenomenology, one could say that place is:

A complex but unitary structure which binds together beings, things and events in time and space configuring a meaningful individual and collective totality of experience, or world of experience.

Through architectural and urban design explorations—understood as forms of world interpretation and making—the Building-City-Building studio explores a series of interconnected notions; the multiple meanings and applicability of the following key concepts:

Building; City; City-Building; Place; Sense-of-Place; Making; and Place-Making.

Other correlated ideas were explored throughout the course from the fields of architecture, urban design and planning, for instance: City, street and building: Legibility, habitability, vivacity, density, and three dimensional or vertical zoning.

The Fall term began with an exciting urban design charrette conceived in collaboration with the City Planning Department. This intense design took place in a street-front locale on Portage Avenue in downtown Winnipeg, coinciding and engaging with the Council for Canadian Urbanism, CanU9 Conference.

Building upon charrette achievements, the studio continued to develop architectural urban design projects building on three strategies initially developed by previous student groups: Character Districts, Urban Corridors, and Itineraries (river to river).

During the field-trip week the studio traveled to Bogotá Colombia, to experience and analyze historically and formally diverse buildings and urban pieces in an urban mosaic or collage city of over nine million dwellers, with a colonial and post-colonial history dating back to the early Fifteenth Century CE. The Bogota experience continued with a small-scale intervention, a multi-use infill project in the meaningful urban context of Barrio La Macarena in an exceptional inner-city situation.

The winter term was devoted to developing an individual, mid-size multi-use, project in the context of a collective, planned intervention of inner-city street building. Architecture students had the opportunity to collaborate with City Planning students to develop a planning strategy on the scale of a city block, before delving into the disciplinary specificity of their individual assignments.
This project in Bogota intends to subtly encourage a slowing down of everyday activities in the home. Axonometric drawings explored solids and voids as a response to the context (1-2); Moments of interior spaces evoking slowness and contemplation (3); Sectional Model explored how interior spaces respond to the staggered brick facade (4-5).
1-3: Tali Budman - Final Model (1-3); 4-10: Lexis Nizio - Site location (4); Interior render showing the views toward Park Tower (5); Building section showing interior program (6); 3D building render (7); Site collage with building inspiration showing the form being derived from a building on site, Park Tower (8); Building elevation (9); Building section showing the interior program (10).
How on architectural urban terms one can attempt to accomplish place making in an increasingly globalized world? The Macondo Plaza attempts to activate limits and re-define boundaries evoking a range of incompatible associations such as dwelling and displacement, private and public, playfulness and serenity. The architectural urban proposal straddles the boundary between the pragmatic and the impossible, emphasizing that place making is a process of social production.
1-2: Jessica Leon D'Toste - Casa Blanca section through (1); Casa Blanca diagrammatic spatial layout (2)
1-4: Jessica Leon D'Toste - Genii Loci view from common area (1); Genii Loci store front + living spaces view (2); Genii Loci section through (3); Genii Loci schematic section (4)
1-6: Tali Budman, Lexis Nizio, Jessica Piper - Initial group studies using modeling to develop a strategy for an urban residential block - An early group model (1); Population Density explorations (2-3); Final Block Site Plan compiled by Felipe Mogollon (4); Final Group Model (5-6).  
7-11: Jessica Piper - Community Centre with townhouse style units - East Elevation (7); Existing Site - the Pyramid Cabaret (8); View to the structure from the square (9); Interior renders (10-11).
1-5: Jessica Piper - Final Model (1-4); View of the project from the public square (5).
1-3: Lexis Nizio - South Facade along high traffic corridor York Avenue (1); Ground Floor Plan (2); 3D Sketch Model (3); 4-8: Tali Budman - Deconstruction and incorporation of toys in the modeling process introduced the concept of reappropriation to the project (4-6); Embracing play as a strategy to design collaborative workspaces on the ground floor (7); Axonometric drawing depicting structural and spatial relationships (8).
1-3: Tali Budman - Drawing into models (1); Final model continued to use fragments of toys to emphasize user engagement and reappropriation of space (2-4); Perspective Section (5); Elevation (6).
Can we loop back to the beginning, to the period of establishing roots, building intricate concrete homesteads, and experimenting with farming and fishing. Shall we imagine raising families beneath the snow-capped volcanic highlands and nurturing mythologies of the ever present and adjacent spirit world?

- Excerpted from Studio Brief
The history of the West Fjords and northern coastal regions of Iceland involves the birthplace of the Sagas and early 8th and 9th century Norse settlements. The unstable landscape of extreme climate and cataclysmic volcanic eruptions on the edge of the Arctic Circle made settlement difficult, and by the mid-1870’s, impossible. Theories suggest that the ash of the eruptions clouded the atmosphere, cooled the planet and ushered in a 22-year period when the Greenland ice pack surrounded Iceland, rendering fishing and agriculture untenable. Large numbers of emigrants from this region left for Brazil, the United States and Canada. The museum at Hofsós tells the story of the founding of New Iceland on the shores of Lake Winnipeg in Manitoba, Canada – a primary destination of the Icelandic settlers. Today, much of rural Iceland continues to suffer from depopulation and the Eyðibyl í Á Islandi (the abandoned ‘Ghost’ Farmhouses of Iceland) bear witness to this dissolution.

In this studio we explored the Northern Atlantic landscape as a social harbour in its infancy and imagined a renaissance of stable communities in the region. We referenced the beginning, to the period of establishing roots, the building of intricate concrete homesteads, and experiments with farming and fishing. We imagined raising families beneath the snow-capped volcanic highlands and nurturing mythologies of the ever present and adjacent spirit world. The desire to construct a better life through resettlement is an oft-repeated impulse and examples of contemporary new-land odysseys are increasingly common - remote North Atlantic colonies at least as probable as the dreams of living on Mars. To achieve this means searching for the possibility of inheritance through ownership and authorship, the turning of ones back to the greater world, the invention of congregational structures, and aspiring to an ideal interdependent community – always guarding against the inevitable challenges of invasive philosophies.

Mortality, immortality, technology, destiny, recovery, transplant, inheritance, and community will be constant themes in this studio.

The site for the inquiry is Hofsós was a small town and harbour on the Arctic Circle - an important trading port for the Danish Trade Monopoly in the 16th century. Hofsó served as an emigration centre for Icelanders escaping from the eruption of the Askja Volcano, many resettling to their New Iceland on the shores of Lake Winnipeg. A small cluster of buildings on the east shore of Skagafjordur include a museum of emigration, a home to Baltasar Kormákur designed by Studio Granda, and a new Sundlaugin Hosósi (Hot Pool).

Students proposed a number of cultural and social scenarios to support and encourage new life in this remote outpost. Five of the ten projects are summarized here.
1-7: Chelsea Tacchi - First term explorations into shoreline and fisheries remediation (1-2); Research Vessel Drawing - a proposed 43,000 sq.ft Arctic Marine Research Vessel that aims to gain an understanding of the environmental impacts on the northern waters of Iceland (3); Section through Vessel (4); Model Images (5-7).
1-4: Chelsea Tacchi - Night view from Deck (1); Research Vessel underway (2); View from Skywalk (3); Exterior Deck Rendering (4).
1-7: Jessica Westervelt - Geothermal energy drawing (1); Site Plan (2); Building Section (3); Exploratory model generated from sun and wind patterns imposed on the landscape (4); Final project rendering at night (5); Final model (6); Topography model (7).
1-4: Matthew McQuire - Final Visualization (1-2); Interim Design Development - Site Articulation (3); Final Design - Interiors (4).
1-3: Matthew McQuire - Site Plan (1); Final Visualization (2-3); Section & Elevation (4).
George Vincent - Final Drawings (1-3); Interior Rendering (4); Final Model (5-6).
1-5: George Vincent - Interior Rendering (1); Night images of model (2-5).
1-5: Ivan Katz - Birdseye view (1); Approaching the harbour (2); View of ships coming from the Arctic Circle (3); Axonometric building explosion (4); Structural diagram (5)
I developed a program for my project that would create a strong image for Hofsós in the spirit of ‘resettlement’. But moreover, one that would also deal with the idiosyncratic tensions of Icelandic culture, embodies in their romantic relation to their landscape and their longing for a sustainable, and scientifically driven future. I am therefore proposing a research exhibition hall composed of an auditorium for research presentations and an art space for the artists who travel along with them. By giving researchers from other countries a place where they can present their findings after long voyages, Hofsós can become the face of Arctic research at the world stage.

In addition I explored ways in which people share knowledge in Iceland, and concluded that a pool, oriented to the North would help locals, tourist and researchers break the boundaries of communication and help them share ideas. This projects attempts to explore the tension between Icelandic culture and its redevelopment primarily through architecture itself. Both the artistic and scientific endeavour attempt to outline a truth about the world in two distinct, but equally valid ways. I explored similar tensions in the project through site, form and program. The site is a threshold between seascapes and landscapes, and one that deals with Icelandic naval history as well as its commitment to the land. The form of the project is in tension almost literally, as the architectural intervention weaves from the edge of the water all the way up the cliff side, exposing through erosion the basaltic columns in the ground. Lastly, the program deals directly with Iceland’s commitment to Arctic research, the artistic expression of such research, and the cultural phenomena of exchanging ideas socially through thermal pools.
Truth in theatre is always on the move.

- Peter Brook, The Empty Space (1968)
Both architecture and theatre have much in common. Both are arts of situational transformation, involving playful interaction of people, place, props, narrative events, circumstantial contingencies, atmospheric effects, and meaningful intertwinings of reality and artistic illusion. Architecture and theatre have revelatory powers, being capable of disclosing profound truths. Studio Theatre explored the many performative and revelatory agencies of architecture at diverse scales. We began by making desktop theatres, with each student transforming their own studio space into a miniature theatre for immersive architectural play. Students incorporated improvisatory explorations with careful research on exemplary theatre precedents, theatrical devices, stage designers and directors. Basic design equipment – like measuring, modeling, drawing and displaying devices – became protagonists and staging mechanisms for imagined plots. Students became inventors and directors, actors and audience. The shared studio environment (with its diurnal activities & rhythms) provided the transformative meta-theatrical milieu. Work grew from the hypothesis that the architecture studio acts much like a theatre, where life is meaningfully reimagined & rehearsed, where desirable narratives are choreographed & performed, and where human situations are dramatically constructed & construed.

Students took a fall field trip to New York City, which involved several amazing backstage tours, conversations with theatre architects, stage managers and set designers, and visits to inspiring sites of urban drama, ranging from subtle to spectacular. Upon return, students designed pop-up festival theatres – in the city, of the city, and for the city. Students selected sites in Winnipeg’s east Exchange District, with its rich history of performance, ranging from opera, traditional drama, vaudeville and ballet, to fringe festivals, street performance and political protest. Temporary theatres became staging grounds for developing comprehensive building programs and more permanent performing arts centers, designed over the winter term.

Throughout the year, students responded critically and creatively to feedback from theatre and architectural professionals, as well as to their own dramatic desires for architectural play. Design processes involved reinterpreting theatrical devices as agents of architectural transformation. For instance, in Madison’s project, theatrical curtains and scims became building fabrics and translucent walls in an urban ballet. In Abel’s scheme, rolling stage platforms, deus ex machina and fly-spaces became kinetic civic infrastructure for the next generation of cultural transformers. In Kara’s design, backstage passages and operations took front stage. In Claire’s project, prosceniums became inhabitable thresholds for creative metamorphosis and collaborative exchange, and neglected alleyways became vital laboratory theatres. In Matt’s design, raked-stages became public plazas for mixed-media projections and urban celebration. In Luxia’s work, trap doors and cycloramas became a synesthetic cosmos of riverfront theatres, galleries, and promenades.

Theatre, like architecture, can be both minimal and magnificent. British director Peter Brook is famous for a minimal (and democratic) approach to dramatic space: a simple carpet is enough to delimit the field of action where willing spectators suspend disbelief in emerging stories. Likewise, minimal staging was integral to the earliest Greek theatres, where a hillside overlooking a level ground was enough to conjure a play, captivate an audience, and cultivate democratic exchange. But there is something splendid also in the elaborate settings that celebrate the collective agency of a theatrically engaged audience. Whether within the stone bowl of the Theatre of Dionysus, the wooden ‘O’ of Shakespeare’s Globe, the opulent balconies of Garnier’s Paris Opera, or the slick factories of Nouvel’s Guthrie Theatre, the theatre’s enveloping space of attention is a dramatic representation of human society.

The institution of the theatre takes its name from theatron (a place for seeing), which gathers people into an intimate and briefly ordered assembly for collective contemplation of edifying and agonizing sights. Of all stage machines, the auditorium itself performs the theatre’s most social and symbolic function. Studio Theatre aimed to explore all scales and schemas of architectural theatricality, from desktop spaces of personal and sensual imagination, to more cosmic scales of civic memory and collective wonder.
CLAIRE SPEARMAN — Desktop Theatre: Prosceunium studies mise en abyme: framing and reframing interactive spaces of creative production and reception via dramatic reinterpretation of found objects and in situ play with materials, models, reflections, audience participation, actor attunements, the drafting table’s potential as raked stage, and the studio’s overhead fly-space.
CLARIE SPEARMAN — Pop-up Theatre: Exploring urban, material and theatrical transformation, these site-specific stages are designed at intersections of the mundane and magical along a back alley of the theatre district. Each temporary stage frames and dramatizes a storied episode from Ovid’s Metamorphosis.
CLAIRE SPEARMAN — *Metamorphosis Drama Factory* (final project): Located next to the pop-up alleyway stages, in an empty lot between the 1914 Pantages Playhouse and the 1970 Manitoba Theatre Centre, this performance space accommodates and represents diverse modes of creative transformation integral to dramatic production: collaborative research, writing, set design, choreography and rehearsal.
CLAIRE SPEARMAN — *Metamorphosis Drama Factory*: The design process and program follow primary protagonists: Actor, Writer, Director, Set Designer & Audience. Spatial and narrative overlaps in the design cultivate collaborative creation. This Drama Factory serves all existing main stages in the area and the Fringe Festival.
MATT RAJFUR — Desktop Theatre: Studies of light, shadow, sound, scrims, framed perspectives & ethereal projections (on found and transformed materials), informed by playful analysis of scenic work by Josef Svoboda, Adolphe Appia and various contemporary multi-media video and installation artists.

Without an unending search for the secret of creativity, there is no creation. It’s necessary always to begin again.

And that is beautiful. - Josef Svoboda
MATT RAJFUR — Pop-up Theatre: From desktop scrims to city screens and building walls, this (re)found and (re)framed theatre recasts Winnipeg’s urban fabric as underground and behind-the-scenes agents of transformation. The design provides (and appropriates) infrastructure for (re)activating the surfaces of parking lots, fire escapes, scaffolding and warehouse walls as open multi-media forums of regenerative social exchange.
MATT RAJFUR — *Backstage City: Topsy-Turvy Art Garden, Pub and Plaza* (final project): An open raked courtyard garden is the centre of this performing arts facility for multi-media artists, collaborators, spectators, and pedestrians. Backstage City is designed for everyday street life intersecting with creative production and reception.
MATT RAJFUR — Backstage City: The upper cantilever bridge caps the courtyard, providing spaces for mixed-media makers, whose private studios become public spectacles hovering above the street; while the basement reveals a light-filled café and conceals a grotto-like disco with secret passages to an abandoned building turned chamber for sound and light projections. The street levels hold an intimate mezzanine pub for creative conversations; a dramatic black box theatre projecting over the sidewalk for rehearsal and performance; and park/plaza/catwalk infrastructure for mediating daily dramas of work & play.
Luxia Yang — Desktop Theatre: Inspired by the multi-sensorial “infinity rooms” of Japanese artist Yayoi Kusama – together with experimental studies of trap-doors, theatrical trickery, stage illusions, lighting, and atmospheric effects – this Desktop and Pop-up Theatre enabled immersive synesthetic experience, mixing individuals and groups with lively materials, elements and phenomena.
LUXIA YANG — **Pier 70: Action Waterfront** (final project): Sited at the edge of Winnipeg’s theatre district, where the historic (and neglected) Alexander Docks meet a bend in the Red River, this comprehensive proposal – for indoor-outdoor theatres, conference centres, social landscaping, and art galleries – brings intense focus and restorative calm to turbulent senses of the city.

Congratulations to Luxia for this award-winning entry to the *On the Docks* International Design Competition. *Action Waterfront* earned the Community Prize.
Architecture needs to be cognizant of the multiple lives that simultaneously take place within it.

- Excerpted from Studio Brief
Studio PROXIMITY is focused on the nature and psychology of rooms, spaces, territories and their relation and proximity to other ones, real and imagined and unrevealed [not known] and not yet present [potential]. The interest lies in both the specific and phenomenal conditions and the interfaces. Architecture is for people. We are not alone in the world. Architecture needs to be cognizant of the multiple lives that simultaneously take place within it. This is a both a continuation and also evolution from last year’s studio, The Logic of the Limit which examined aesthetic thresholds.

Studio PROXIMITY will focus on constructing a complex and non-prescriptive living realm that is not about the 'forest and its paths' [Heideggerian], but rather about building and locating: about assemblages and constructions [Deleuzian]. This is not ideal, pure or autonomous; but rather the opposite: impure. It will embrace the dirty realism of the world that we live in including social obligations and responsibilities, ethics, economics, lack of money or messy site constraints, incomplete, evolving. It will be of the city and modes of arranging and disposing people and things – assemblages.

Important issues include:
1. Seeing, reading, subjectively mapping
2. Tracing a limit and building a perimeter. [Thickness and thinness]
   Logic of the limit [Juan Cortes and Eugenio Trias]
   [El Croquis OFFICE]
3. Occupation and emptying of space [Juan Cortes]
4. Order, structure, spatial legibility
5. Non-Linear inactions [Antonioni]

Housing constitutes the most fundamental building block of both the physical and social fabric of our cities. As we know, the mass market single family home, remains the purview of the developer-builder. The architectural profession has been largely responsible for two areas in relation to housing: specific higher budget private residences and multiple unit projects. Your task this term is to engage the latter and design housing.

Within what might be considered a less glamorous, or minor genre of MIN [minimum] cost, unit area, simple program, elementary construction system and basic materials lies the potential to create what is MAX [maximum] in terms of qualitative characteristics, ingenuity and sensibility.

While the term housing and the banal and inhumane projects that it conjures are problematic, there are real possibilities inherent in collective living including the potential for experimentation, its necessity for society and our responsibility as architects to explore new possibilities in this area. This is a subject that holds out for real change to the way we live as humans and it has been all but ignored recently.

“The stuff of everyday life into architecture, considering the multiple lives that simultaneously are enacted in a constructed living realm.” - Excerpted from Studio Brief
Faeza Hasan: Building Section (1); Perspective (2); Interior Perspectives (3)(4)(5)
Kevin Partyka - Conceptual Rendering (1)(2); Conceptual model (3); Axonometric(4); Exterior Rendering (5)
1-3: Helia Saadat - View of model (1); Residential Units Diagram (2); Shadow explorations with watercolor (3,4); Exterior Rendering (5)
1-3: Jason Wall - Axonometric Site Plan (1); Exterior Renderings (2)(3); Site Model demonstrating relationship with existing buildings (4); Conceptual image visualizing the forces and implied extensions of the building components (5)
1-3: Kate Zhong - Metamorphosis in Wall Concept (1); Psych Room (2); Section Perspective (3); Facade Element (4); Model Development (5)
DESIGN THESIS

Design Thesis consists of self-driven creative work, motivated by questions and curiosities, and developed through intensive material research and original design explorations. A Design Thesis is both an end in itself and a new beginning: it culminates a professional education, but also inaugurates new directions. It is a transformative event—a threshold, opening new ways to think, make and engage architecture.

Carrying out self-directed design research and bringing this work to creative fruition are imperative skills for any architect. Design Thesis is an opportunity for students to challenge themselves by pursuing architectural interests in ambitious and self-critical ways, while working in the mutually supportive context of peers attempting the same.

Design Thesis entails considerable intellectual risk, but can also be serious fun! It should be the most exhilarating design inquiry of one's life.

An excellent thesis can open doors to good jobs, but it can develop new technologies, while rediscovering the persistent value of old ones; create opportunities (and confidence) to collaborate with designers around the world on topics of shared interest; and, in some cases, lead to further post-professional or doctoral studies.

In the Department of Architecture, Design Thesis projects are as wonderfully diverse as its students. This year students explored a wide variety of architectural questions and themes, including theatre, cinema, and mythology; architecture’s role in healing, and in structuring child’s play, or as a balm for national traumas; as a setting for joyful frenetic commerce; the uncanniness of dwellings and the terrible sublime of power extraction; how serendipity informs the city; how a church can serve the unchurched.

Projects developed through a variety of constructional and representational techniques: full-scale building, experimental drawings and models, digital fabrication, and an array of hands-on media.

The tradition of learning by doing and exploratory making is very much alive in our school. Students are encouraged to discover the most revealing and rewarding ways of pursuing their design inquiries.

The thesis year commences with a Design Research Studio led by a confluence of a student’s own interests and an advisor’s research and guidance. This first term is about articulating questions and attempting responses; finding topics of fascination and concern; defining the particular conditions, programs, sites, and/or phenomena to ground the work; developing exploratory strategies and appropriate manners of making; and positioning the thesis inquiry in relation to research precedents, and relevant theoretical and cultural contexts. The first term culminates with significant attempts at architectural designs and design strategies, together with presentations of ongoing creative research in the form of diverse models and drawings, and potentially full-scale installations, supplementary videos and digital projections.

During the Winter Design Thesis term, students fully manifest a substantive architectural design project and produce a Design Thesis book. The book compiles a year’s worth of search and research: documentation of processes, iterations and the final design, plus a contextual framing, interpretive annotations and critical reflections. Throughout the year students benefit from discussion and criticism with advisors and peers, and have formal interim and final reviews with distinguished guests, including external examiners from other architecture schools.

How does a thesis begin? With questions! While each student develops their own, everyone also grapples with the fundamentals: What is architecture? What are its various manifestations? What are the most pressing challenges facing the discipline today? What are its most persistent, trans-historical topics? What are the different ways of performing architectural work, and which ways do I seek to develop? What kind of architect do I want to become? What architectural experiences have I found to be most moving? Most troubling? Most confounding? Most meaningful? What ignites architectural imagination?

THE UNHOMELY HOUSE: ADVOCATING FOR AN UNCANNY ARCHITECTURE

The architect’s long standing infatuation with the notion of utopia—the realm of idealized perfection, what ought to be—is in many ways paradoxical: utopias are placeless, while architecture is firmly fixed, and utopian philosophy is purely conceptual, while architecture requires tectonic precision. This disconnect has rendered efforts at realizing utopian aspirations in the built environment as strange; with typologies such as Soviet era block housing and resort communities possessing an uncanny quality that reveals the fissure between utopian idealism and the reality of human life.

In his essay, The Production of Space, Henri Lefebvre identifies such homogeneous spaces as products of capitalist interest; where differences are suppressed and standards imposed through behavioral restrictions. Lefebvre proposes however, that the immediate contradictions that come to light when humans occupy these abstract spaces can, if encouraged, generate a politically, socially, and experientially rich condition, which he terms differential space. At its strongest, a differential space is inherently diverse, dynamic, adaptive, and evolving; a space that embraces the heterogeneous human condition and combats the suppressing sameness of a rigid framework. This thesis looks to examine the role of architecture in the attempted formation of differential space, and, reciprocally, how this friction between reality and idealization can form a differential architecture.

A community of 350 residences in central Winnipeg, occupied by Canadian Armed Forces personnel and their families, is the context in which this research will unfold. The community possesses a number of elements central to the formation of an uncanny territory: skewed archetypes (the house), a simulation of normative behavior (the community), all set within an invisible boundary of privacy, secrecy and exclusivity. This thesis aims to create a new typology of living for the residents of this community, one that both improves their difficult lives and at the same time embraces the uncanny edges of their current condition.
This thesis is a response to the changing pedagogy of residential development in Canadian cities and the current trend of achieving ‘density’ in design. Winnipeg, which is a great example of urban sprawl, is a city currently focusing efforts on development in the downtown core with the addition of numerous residential projects. However, single family residential neighbourhoods are still expanding around the city as it becomes a less and less sustainable option for living. The question is, is there an alternative to suburbia?

As part of the research, a study of the various residential developments around the city was conducted, both in the downtown core and the sprawling limits of the city. The focus was to limit the scope to a certain demographic of home owner, a very important group that is often not considered when developers design for density especially downtown, and that is Families. With this in mind, it was clear that the housing options in the downtown failed to compete with suburbia in most categories other than proximity.
Section of property line dictated by limiting distances (1); Building Section (2); Plans exploring public passageways (3); Exterior Rendering (4)
CITY STAGE: AN EXPLORATION OF STREET LIFE

The eccentric conditions of Winnipeg reduces the vitality of street life. However, people’s desire for celebrating public space still impacts the city. By looking for the potentials and possibilities of the street as a proper public spaces, this thesis attempts to translate the dynamic, lively atmosphere of Winnipeg based on its own culture and environmental conditions. At the same time, this project explores ways to increase interaction between people and city by raising people’s awareness and perception of urban life through architecture and urban design. The street is the theater of urban life reflecting Winnipeg’s urban diversity.

City Stage is a place for performance and everyday life, in connection with the urban surroundings. The street is the gathering place of uncertainty and flexibility. How traditional Chinese street culture and atmosphere can impact the North American modern city? What role can architecture play in achieving people’s ambition for dynamic urban life? How to activate the city in different sites without breaking its own fabric and memories? These questions contributed to a series of public architectural spaces, activating downtown Winnipeg in both architectural and cultural ways.
Yiqiao Hao, Axonometric showing the multi-storey interior and program of City Stage within the urban context.

- Nursery
- Kid playground
- Bookstore
- Video store
- Convenience store
- Clothing store
- Restaurant
- Restaurant
- Stage
- Gallery
- Cafe
- Art studio
- Exhibition area
- Office
- Structure unit
- Bar
- International food restaurant
- International food restaurant
- Gym
- Snack bar
- Fast food restaurant
- Beverage shop
- Indoor street
- Art craft store
- Water
- Performance plaza
- Gathering plaza
- Performance plaza
- Ellice Ave
- Smith Street
The root of this thesis is the simple notion of the connection between breathing and architecture. To breathe is to be alive, to inhale and exhale, with time. Through breath, as Alberto Pérez-Gómez suggested, everything in the universe is capable of touching everything else. A building that breathes, thus creates this attuned setting for its inhabitants: be it a person, a flower, or a butterfly... A building that breathes provides the rhythm for life! The culmination of this thesis project is manifested in multitude acts of bridging, and resulted in two bridges - one imaginary, one archetypical - that attempt to cross the same site/river, but with different understandings of the same site/river, connected with a continuous investigation of the relationship between nature and human nature through the practice of architecture. What is an architectural practice? What is a bridge? What is a building? In what way does the act of bridging relate to the act of building? In what manner, to what end, and with what values? How does bridging relate to placemaking? How does a bridge breath? How can Winnipeg as a river city, enrich its relationship with its rivers via bridges / bridging?
1-4: Bryan He, Main pier model (1); Main pier section (2); Plan: public space at the margin of Red River (3); Main pier detail (4)
"Infrastructure in humanitarian aid has predominantly been structured in an approach to meet the basic needs of many while accounting for the restrictions and constraints that exist in a displacement event. While such a strategy has been effective in providing relief during the most urgent period of resettlement, there has been a detrimental inability for many humanitarian projects to adapt to the unfortunate long-term realities of displacement events. As refugee environments become increasingly protracted, the current framework places inhabitants in a limbic state that paralyzes the ability for refugees to invest or even have opportunities to have livelihoods.

The thesis takes on a case study dealing with the ephemeral nature of place and structures in border areas with a critique of the current model of design and implementation of displacement infrastructure."
River Street is located in the downtown core of Moose Jaw, Saskatchewan. Moose Jaw’s downtown is heavily concentrated with historic architecture from the city’s conception in the early 1900’s. Moose Jaw’s rich history draws in many tourists every year and the city relies on this tourism as an income generator. River Street conversely is not up to par with the surrounding downtown region.

“River street west prior to the First World War was a street of hotels, real estate business, cafes, and pool rooms, indicative of a growing, booming community.” (Knight, Leith. “All the moose, all the jaw.”)

River Street has been on the decline ever since. Fire claimed the Cecil Hotel in 1975, Empress Hotel in 1987, and the Joyner’s building in 2004. Fire isn’t the only culprit in the decline of River Street. In 2009 the city agreed to demolish three historic hotels, the Brunswick Hotel, City Hotel, and the Royal Hotel to make way for a new development that was in the end never realized and to this day the lots remain vacant. What was once a thriving street has become an uninhabited gravel parking lot.

This thesis will attempt to define a set of attitudes that establish a prairie architecture. It will then use those set of attitudes to explore how to revitalize River Street, to revive it from its present-day desolate state into a street analogous to its former splendor. As a manifestation, I intend to study and discover how contemporary architecture can be situated within the historic downtown core of Moose Jaw. Is there an appropriate architecture for Moose Jaw? What does it mean to make architecture in Moose Jaw? Can it rehabilitate, enhance the area? Through examination of the building materials and existing details of the surrounding historic buildings I will explore how the existing materials and details can be reformed into new contemporary details, so not to replicate the past but build off of it to create a new architecture that will draw a parallel between existing and new.
The hotel model was built to understand how the structure would work. The hotel suites are going to be built using cross laminated timber (CLT) panels for the floors and walls. There is a mixture of suite types, with some being two storeys in height. The corridor for the hotel is ten feet wide with openings cut into the floor along the edges, where possible. This is done to allow the natural light that is collected in the upper windows to penetrate down into the lower floors. The suites all have windows in the washroom at seven feet above finished floor to let the natural light in to the room as well as to create a night light for the washroom as the corridor lights will be on at night.

The main floor of the hotel utilizes a glulam post and beam structure. The reason for the switch is to allow the main floor to be more flexible for any future renovations or program changes.

The basement of the hotel features a bar with a glulam post and beam structure for the interior, but a loadbearing concrete wall on the exterior. An entrance to the bar is located at the back of the stage, which also has windows, so you can see down into the bar from street level. This is done to play off Moose Jaw's tunnels and showcase that there's more going on underground that you might not be aware of.
THE SUBLIME AND THE BEAUTIFUL: THE PRESENCE OF RENEWABLE ENERGY IN ARCHITECTURE

There are a number of environmental initiatives that encourage the use of renewable energy and sustainability in our rural and urban built environments. In recent years, renewable energy harvesting has become more sophisticated and popular. There are many applications that are highly efficient, economic and sustainable but do not offer a spatial or experiential relationship between our natural and built environments. Architecture is perceived through our body and senses. As Juhani Pallasmaa shows, embodied experiences invite the act of remembering and embodied memories strengthen our awareness of space and place. Through such embodiment, matter, energy and time unify as a singular dimension and exist in our consciousness. We identify ourselves and our existence with this dimension related to architectural space and experience.¹

This design thesis attempts to better understand the qualitative aspects of renewable energy harvesting in relation to our natural and built environments. The work explores relationships between energy, sound, functionality and sustainability through architectural space and experience. This design thesis began with a series of spatial and material explorations that helped guide the design process of a theoretical system called an Oscillating Water Column / Flue Pipe (OWC/FP) which simultaneously produces useful energy and qualitative sound through the movement of waves and wind. In addition, this design thesis includes a proposed onshore Hydraulics Research Facility / Fish Production Facility located on the coast of Vila Nova de Gaia, Porto District, Portugal and a proposed offshore Hydraulics Research Facility / Fish Farm Facility located in the Atlantic Ocean.

This thesis will explore a collaboration with the Métis Elder and artist, Maria Campbell, on a design proposal for a space that facilitates cultural practice through a process of Kîhokêwin. This includes storytelling, dreaming, art, music, language, craft, ceremony, and cultural activities at the historic site of Gabriel Dumont’s Crossing along the Ápihtâklisikanohk Kisiskâciwani-Sîpiy (South Saskatchewan River). Kîhokêwin Kumik will be an exploration of not only a Métis Vernacular, but an exploration in a contemporary Métis architecture that is grounded in the teachings of our Elders, kisêwâtisiwin (kindness), kwayaskwatisiwin (honesty), nikwatisowin (sharing), and maskawisiwin (strength). It attempted to braid together the past, present, and future through an Indigenous architectural process that creates a catalyst space to strengthen kinship in the Métis Nation at Gabriel’s Crossing, a place that has always been a hub for Métis resistance and culture.
ENTROPIC BEHAVIOURS & THE PASTORAL REALM

The wood-crib grain elevator, designed and utilized as a commercial machine for the collection and redistribution of grain, casts a pivotal role in Canada’s agricultural and architectural history. As Canadian grain industries consolidated, railways diminished and agriculture equipment/technologies advanced, many small farms and rural residents relocated themselves to nearby cities in search of other employment. Left behind is the architectural legacy of Canadian agriculture and a historical symbol representing a time of prosperity within rural communities. Conceived at a time when the external advancements in equipment and technology were rapidly changing, made the elevator a highly specialized instrument that was limited to the present day scenarios. It is as though the notion of program, once a concept that gave meaning and purpose to the architecture, has unfortunately presented itself as the biggest challenge and an antagonistic force towards the elevator’s demise. Inevitably, like all architecture, the notions of time, entropy, and temporality coinciding with aspects of human neglect and abandonment has also seen these structures fail to resist the thermodynamic forces of nature. As they remain, stripped of purpose and value, nature has begun to take its course and erode, decay and reclaim these preconceived resilient giants into a much more vulnerable state of existence. Simultaneously, rural municipalities and their respective communities, both economically and architecturally, are in the latter phases of the entropic evolution struggling to remain as intended. The work of this thesis challenges the role architecture has when it no longer resists entropy, but rather recognizes its inevitability and works with it instead of against it, in order to restimulate or reimagine the abandoned and obsolete. In relation to the deteriorated conditions of many abandoned elevators, the biological organism of Mycelium and its capacity to feed and develop itself in a symbiotic relationship with the elevators anatomy begins to challenge the notion of resisting entropy in architecture. The project developed a close understanding of how an organism that is often known for its participation in the decay of architecture, can become the opposite, as a constructive tool or ingredient in the development of an architecture.
Rapid development in China has led to the creation of urban villages – dense informal neighborhoods that spring up in between high-rise city blocks. Heavily populated and intensely developed, they lack proper infrastructure and public space. Yet, they are full of vitality, with families, workers and farmers striving to retain their cultural heritage and ways of life. In Xi’an (a major city with a population of 12 million), there are more than 180 urban villages. The Luojiazhai village is home to about 320,000 people, living in a 100,000m² area. The dense population causes social battles: between food stall keepers and police; between the persistent danger of fire and the carefree spirit of children; between the thriving city and decaying buildings; and between urgent needs of villagers and antipathy of developers and government.

This design thesis aims to quell the conflicts by reinventing the Luojiazhai urban village in Xi’an, transforming it into a multi-purpose art and food market, while improving the residences.

The new market is **functional**, to shelter the stall keepers from scorching summer sun and bitter winter wind; the market is **flexible**, to fit various uses at different times, from everyday shopping to seasonal festivals; the market is **flowing**, to enhance more community interaction among local residents and visitors; the market is **intimate**, designed for humans instead of vehicles; the market is **open** to accommodate mobile vending carts as well as permanent shops; the market is **traditional** and **modern**, incorporating new and old materials, exotic and local crafts; the market is **vibrant**, activating the whole urban village and the extended modern district; and the market is **adaptable** to change over time. Like a child growing up in care of the community, the market develops with everyone’s participation and devotion. It is the **seed of community cohesion.**

1. Site documentation and water-colour studies of life in the market;
2. Proposed site plan of Luojiazhai village, with continuous interweaving multi-level street market, new pocket parks, elevated track (moving people + produce), green growing roofs with rooftop silos and festive lanterns;
3. Ground plan of the new market building.
SAVORING THE CITY: Site sections and renderings showing integration of architecture and life throughout the new market building, the renovated urban village, and the modern city.

REGENERATION
New Life in Urban Market

Over-bridge to Art School and residential towers
HANDS ON MASONRY

you can make a joint that’s so magnificent that joint-making (and the joint) is the beginning of ornament... the whole idea of making a single thing which comes together with another single thing.

— Louis Kahn, Silence & Light

The history of architecture is virtually synonymous with the history of masonry. For this reason, a course on masonry cannot avoid a long span of exemplary projects and methods. In Hands on Masonry, students cover—and discover—how the continual mixing of innovation and tradition is the essence and strength of any living tradition. This is true of architecture in general, but is perhaps especially true of masonry.

As the name suggests, students in this course gain a mix of direct experiences. They get their hands on physical samples and installations. They participate in a brick-laying, arch-building workshop, where they also learn from full size mock-ups the difference between load-bearing masonry and insulated cavity wall construction. They take photos and charcoal rubbings of intricate masonry details on campus. They take a mind-blowing, ear-shattering, eye-popping tour of the local Tyndall Stone quarry, where they get close (but not too close) to monstrous diamond-toothed, water-splashing, stone-cutting devices, and visit the relatively calm drafting office—where meticulous shop drawings are made. Students meet with diverse experts. They also get their hands on intense reading material, discovering the inspiring history and potential future of masonry. Students research exemplary masonry precedents, and a massive array of techniques and concepts. They craft and share detailed presentations, and assemble a final masonry booklet, gathering all they’ve learned into a single well made artifact.

This course benefits from generous support of the Manitoba Masonry Institute, Gillis Quarries, Red River College, and Crosier-Kilgour & Partners.
Lighting is one of the most interesting, poetic and fun facets of architecture. Slight changes in lighting can dramatically transform the atmosphere, perception and experience of a place. There can be no light without shadow; no shadow without light. Without light we cannot see. Without the depth and definition of shade and shadow, we cannot perceive edges, volumes, textures, colors, nor any quality of surface, space or place. Furthermore, if as Louis Kahn suggests all materials are “spent light”, then architecture itself is a kind of shadow.

In this course, students discover ways of exploring light and shadow as integral elements of architecture and design. Students study the exemplary light and shadow play of leading artists and architects. They meet with lighting experts and have a chance to inspect contemporary lamping equipment. Students visit local sites where daylight is crucial to architecture, and meet with architects involved in lighting design. Students construct their own solar path diagrams with help from a gnomon, and rediscover architectural implications of the solstice and equinox, and the power of solar orientation. Students learn about lighting concepts and vocabulary, units of measuring light, and methods for modeling light digitally and physically. Students are exposed to a wide array of literature on the subject—technical, artistic and theoretical. Throughout the course students work on their own light and shadow experiments, building 1:20 scale models of lighting conditions, studied through careful iterations and photography (depicted here). Students gather highlights from all they’ve learned in a final Light and Shadow Book, illuminating the depth of their discoveries.
In 1899 the German biologist and artist Ernst Haeckel published his seminal text Kunstformen der Natur ("Art Forms of Nature"), in which he presented hundreds of his own etchings of newly discovered and strange microbial organisms later known as Radiolaria. These simple protozoa organism only measure between 0.1 - 0.2 mm but produce countless variations of highly complex and extraordinary geometries. The mysterious forms of these creatures are created by the growth of a flexible membrane separating the various pressures within this organism from its environment and forming a silica skeleton around these fluid-filled membranes. The results are as diverse as the make-up of the organisms and the unique sites they are formed in.

This Advanced Technology Topics Course explores the ability of flexible membranes to produce highly complex and stable geometries using various forms of pressure and manipulation on fabric membranes and rigidifying them using various liquid-to-solid materials (ranging from plaster, to wax, to concrete, to ice). The studio produced a range of fabric formed ice shell structures, creating unique objects of spectacle and a demonstration of the theme of fabricating in-situ by using the unique climate of our local environment in winter and the creative forces of our students to shape these structures.

"The cell never acts; it reacts." — Ernst Haeckel
QUESTIONS OF CREATIVE METHOD:
METAMORPHOSIS AND MATERIAL IMAGINATION

“We shall see that metaphors are naturally linked to metamorphoses and that in the realm of imagination the metamorphosis of a being is already an adjustment to the imagined environment. The importance in poetry of the myth of metamorphoses and of animal fables will seem less surprising.”
—Gaston Bachelard, On Poetic Imagination and Reverie

“[…] the imaginative artistic reality is of our own projection and creation. Embodied poetic images permit us to experience our own mental emotions through the sensibilities of some of the wisest and most subtle individuals of humankind.”
—Juhani Pallasmaa, The Embodied Image

“Questions of Creative Method” explores architectural design situating its creative processes in the realms of place-making and imagination, and drawing parallels from analogous creative fields such literature and philosophy. The topic is approached mostly from within the phenomenological tradition and the course contents and goals direct towards gaining an understanding of the notion of the poetic image in architecture and the potential (for generative processes) which one may derive from metamorphic articulations of poetic or embodied images. The explorations attempt to go in depth into, and expand, key aspects enunciated by J. Pallasmaa in his elaborations on the phenomenological implications of architecture as all embodied, poetic, place-experience.
This topics course intended to bring to surface a design tool often neglected in favour of other representation elements of the project like the plan, the elevation, or the infamous 3D rendering: the section. There is a shift of perception in architecture after the second war, where architects gradually distanced themselves from questions of space towards questions of the image and representation. This process made the section assume a secondary role, almost as an afterthought to the design process. The section always comes later in the design process, when in fact it should be developed simultaneously with the plan, and all the other aspects of the architecture (structure, materiality, site, envelope, etc.).

The course discussed the section as a way of thought, a form of language. The section reveals the genesis of the project, to announce the spatial continuity between interior and exterior, land and building. This is where one measures the space referenced to the human scale, where one determines the relationship between the building and the ground, unlike what happens in plan. Topography is always evident and the plot falls apart in a direct relationship between architecture and territory if it is not carefully considered: the design of the floor. If the section is the flipped ground and the plan is the fold of the site, the result of this equation withdraws the site from its mere trimming condition from the urban map, to restore the body’s and the ground’s physicality.
Long neglected (and even despised) Brutalist architecture has recently received greater public, media, and academic attention. This is partly because we are at a crucial point in many buildings’ lives: What do we lose if these buildings are demolished? This course offered an overview of Brutalism. Among the questions this course tackled were: What is Brutalist architecture? Is there a clear definition? Was this mode primarily defined by aesthetics or was it a way of thinking about practice? Did Brutalism mean different things in different places? These questions were explored through the work of Reyner Banham, Peter and Alison Smithson, Paul Rudolph, Rejean Legault, Jonathan Meades, and others. Brutalism was considered as related to a growing historicism within the Modern Movement and as a term without unity. Diverse practices, communities, and tendencies were discussed, among them: the use of raw concrete, visual heaviness, the rejection of traditional concepts of beauty, and links to the welfare state.
During the 2018 winter semester I was pleased to be a Researcher in Residence at C.A.S.T. My research can be broken down into two parts, each dealing with the potential of musical instruments to resonate or transmit information. The first explores the spatial, physical, and sonic properties of material culture, specifically the metalophones that comprise a core component of many Balinese gamelan ensembles. My second research objective is to explore the social potential of instruments to communicate (and possibly miscommunicate) ideas and information within and between social groups/networks.

Since the 1960s, groups and individuals throughout the world have modeled “homemade” Indonesian gamelan instruments to suit particular social and visual/aural aesthetic contexts. The instruments constructed at C.A.S.T. are firmly embedded in this tradition. I referred to the Harrison/Colvig treatise on gamelan construction (1983) in the early stages of research. Choosing to craft the instrument keys from aluminum was based on my experience performing on a set of well-crafted Harrison/Colvig instruments in 2015. I fabricated keys from 6061, flat-bar aluminum with the assistance of the FabLab’s CNC router. I then fine-tuned them with an angle grinder and hand files. All eight instruments comprising the final set will be tuned according to the Balinese musical mode selisir.

I began the building component of this project understanding that its completion would only be the beginning of a new (second) phase of inquiry, one with a much longer and broader scope. In particular, I was interested in documenting the varieties of social interactions that may be catalyzed and sustained by the presence of a musically active Balinese gamelan ensemble in Winnipeg. The opportunity to foster this sort of cross-cultural musical dialogue has, since the beginning of the residency, been bolstered by the support of a Canada Arts Council grant. This funding will support the cost of bringing eight Balinese musicians and dancers to Winnipeg during the fall semester (2018) for a series of concerts and workshops, including a multi-media event at C.A.S.T. exploring the theme of “light and shadows.”
Malleable Interface is a collective project with students participating in C.A.S.T workshop series. It focuses on the design of meaningful interactions between human and materials by exploring interactive architecture through cross-disciplinary research and making.

Malleable and flexible spatial interfaces have the potential to enable new forms of interaction and expressiveness through flexible materials and computational sensors. By taking materials of architecture, students explore how the behavior of users can interact with spatial recognition.

This project is specifically developed by Architecture, Environmental, Art, and Computer Science students with different discipline and development of new kinds of interdisciplinary practices. Integrating in sensing technology of computer vision library, processing computer programming, and architectural space as well as experiment of material properties, students research the relationship between space and performance of audience, thereby providing the users with a thoroughly immersive experience.

Facing a challenge to new prototypes of architecture, user experience, and technology, it exposes us to a unique design inquiry.

For more information, please visit:

https://youtu.be/YFxUjFMfMkc

Windows to the digital world are confined to flat, square screens and pixels. What if the windows are made of malleable interface?
Does public space exist? Non-public challenges the notion of what constitutes “public space” to propose the view that public space in fact does not exist. What exists instead is “public value,” or what Jürgen Habermas refers as “public sphere.” The paradox is that as soon as public value turns into something objectified in the city it ceases to exist as “public.” My present ongoing research studies the conditions that make “public space” in reality non-public—its constituencies, stakeholders and claimants, its crisis and promises, identifying the real actors in the city to locate new strategies of engagement by ascertaining policy and design strategies that reclaim urban spaces for more democratic citizenries. Non-public explores this venue through the recent phenomenon of urban beaches surfacing around the world as the most reclaimed and intensely occupied urban places in large metropolises. Fluid and indeterminate, the urban beach circumscribes a type of space endowed with a flexible mechanism for negotiation between people and places, economies and cultures, architectures and the city. Non-public reclaims a post-urban possibility to reflect on alternative notions of “public.” Witnessing the beach, Non-public looks back to the city to propose strategies of other types of space, reclaiming the urban precinct to a new constituency, investing in the promise of a new role for urban design as a new form of resistance.

Shawn Bailey is a Metis architect with the Ontario Association of Architects and holds a Masters Degree in Architecture from the University of Manitoba. Shawn has 15 years of experience in design and project management working within a wide range of project types, from small to large residential, institutional, industrial, and commercial projects which include both new builds and renovations. He is a native of Kenora and was raised in a remote area on Lake of the Woods. His background has provided him with a strong connection to the region. Shawn’s work seeks inspiration from Lake of the Woods and the surrounding natural environment.

BOREAL ARCHITECTURE STUDIO INC. is a Canadian design firm with offices in Kenora, Ontario and Winnipeg, Manitoba. BOREAL STUDIO is a multi-disciplinary architecture and interior design practice working as a collaborative and specializing in contemporary design. Shawn Bailey practices in partnership with Shawn Sinclair, originally from Northern Manitoba and Adéle Sinclair, from the Eastern Cape of South Africa. Their diverse backgrounds and life experiences inspire them to provide meaningful architecture and design that can play a role in connecting people, culture and landscape.

As a researcher at the Centre for Architectural Structures and Technology (CAST) professor Lancelot Coar explores how the dynamic properties of building materials can lead to an improved use of materials in building systems and new and expressive architectural forms. In this research, Lancelot investigates how building materials can provide a productive link between design and construction techniques by working with the behaviour of materials to produce efficient forms and assembly processes in architecture. While his research involves the exploration of numerous material systems, his focus recently has been on the use of fabric formed ice to produce large scale structural shells. Currently, Lancelot is a Ph.D. candidate in the Department of Architectural Engineering at Vrije Universiteit researching “Bending active fabric formwork structures utilizing principal stress lines”.

Another research interest is in working with Indigenous communities to better understand how cultural identity the realities of contemporary and traditional lifestyles can influence the design and construction practices for First Nations people living in remote Northern communities. This work has been supported by CIHR and SSHRC funding and has led to ongoing collaborations with First Nations communities and multidisciplinary researchers focused on these and allied issues related to Northern Housing.
Professor Enns has published widely on spatial perception, cultural identity and modern design. His research includes regional culture, landscape and place. He is active in practice, developing innovative products and building systems for projects like the River House (2016), the Lake House at Clearwater Bay (2015), modular housing and a master plan for the Experimental Lakes Area (2017). He is currently designing the renovation of a former steel factory in North Kildonan and a series of new buildings for Manitoba Pioneer Camp on Shoal Lake.

In 2017 a retrospective ‘apologia’ on Chad and Anca’s 2014 installation Stones of Teeth was included in Scroope 21: The Cambridge Architecture Journal. In 2017 Chad was invited to collaborate with RAW Gallery and Wolfrom Engineering on the 2018 RAW: Almond and RAW: Gimli temporary restaurant projects (pictured above). Both projects are featured in the February 2018 issue of Canadian Architect and received both the Commercial Wood Design and the Wood Advocacy Awards at the 2018 Prairie Wood Design Awards.

Professor Terri Fuglem has written extensively on twentieth century Canadian architects, as well published and exhibited photographic work on the early renaissance vaults of Vladislav Hall. Her current research projects include: a monograph on the institutional and domestic architecture of Gustavo da Roza (1960 – 1975); research toward a publication entitled Sacred & Modern: The Mid-Century Religious Architecture of Winnipeg which will chronicle the post-war religious architecture of the 1950’s and 1960’s; a series of short essays on the theories of exchange and architecture; a short paper on the relationship of the poetry of William Blake to the space of imagination; and the archiving and assessment of historic student work and architectural pedagogy from 1910s to the 1970s at the Faculty of Architecture at the University of Manitoba.

Chad Connery’s research and practice enthusiastically explores the interdisciplinary promiscuity of architecture. Often collaborating with Anca Matyiku under the research-creation practice MatyikuConnery, Chad’s work is predisposed to playful interpretations of mundane phenomena, and the intersection of material temperaments and craft process with storytelling and fiction. Matyiku and Connery’s architectural research work has been featured in galleries, journal publications, and at conferences in Canada, the US and the UK. Chad has previously practiced with DIN Projects and Al Copinger Architect.

In 2017 a retrospective ‘apologia’ on Chad and Anca’s 2014 installation Stones of Teeth was included in Scroope 21: The Cambridge Architecture Journal. In 2017 Chad was invited to collaborate with RAW Gallery and Wolfrom Engineering on the 2018 RAW: Almond and RAW: Gimli temporary restaurant projects (pictured above). Both projects are featured in the February 2018 issue of Canadian Architect and received both the Commercial Wood Design and the Wood Advocacy Awards at the 2018 Prairie Wood Design Awards.


Photograph by Terri Fuglem.
Enacting a Spatial Realm is Neil Minuk’s on-going research into subjectively understanding and representing the complexity of spatial relations and territories, both existing and designed in ‘situated’ architecture. The intent is to understand the qualities of these spaces and thresholds and their impact on psychological human relations. The phenomenal and non-linear enacting of an architecture is intended to be imagined in the design process and represented such that an immersive architecture that considers multiple simultaneous human relations is possible and privileged.

This research project continues work done as part of a critical architecture practice of built work and formed the subject of the DOA teaching design studios.

Neil has been researching and compiling existing representation methods, including non-linear storyboards; model enactments and video; drawing; simultaneous photographic apparatuses; subjective mappings; and point cloud digital captures.
Liane Veness is a registered Architect, and Instructor in the Department of Architecture. She is also the Coordinator for the Centre for Architectural Structures and Technology (C.A.S.T.) and the founder and principal director of WORK/SHOP; a collaborative research, fabrication and Architecture studio. Her interest and research extends between multiple scales of the material world, working directly within the 1:1 scale of the built environment, while engaging in a myriad of material experimental processes.

In both her practice and pedagogical approach Liane places the process of building, rather than the object of Building as the leading subject of query. Her current interest is in exploring human (material) propensities such as intuition (space of hesitation) as Architectural provocateurs.

Moving forward, her ambition is to create a collaborative "workshop", postulating a direct dialogue between her work as a practitioner, her research as an academic and her role as an instructor. Ultimately providing an environment where both Architect and student can learn from the consequential exploratory abstractions realized through a direct relationship with the material world.

Dr. Carlos Rueda is currently working on a research project on generative processes of place-making in architecture, related to ideas of re-creation and imagination. He is particularly interested in the concepts of metamorphosis and synedesis and how these may help to unfold creative actions which articulate memory (in terms of poetic images) and elements of history and tradition in architectural works and projects.

His work includes case studies from contemporary practices, significantly by Peter Zumthor and Rogelio Salmona. Borrowing from the phenomenological tradition Rueda draws parallels coming from literature (poetry in particular) and philosophy of place analyzing place-making as a construct of fictional worlds, in the work writers like J. L. Borges (Fictions), S. Rushdie (The Enchantress of Florence), and film-makers, like Denis Villeneuve (Enemy, Blade Runner 2049).

Image: Museum of Colombian Historical Memory: Design competition entry, with Monumental Arquitectura (honorable mention).

Professor Ed Epp’s practice and academic interests span architecture and urban design. Projects range from Victoria Beach cottages to urban design projects such as Coal Harbour (Vancouver) to the Master Plan for the UM Fort Garry Campus (Winnipeg). His primary research in ‘flood architecture’ addresses settlements practices at the intersection of human and natural systems in floodplains, internationally. On Leave: 2017-2018.

Ralph Stern is a licensed architect in Manitoba and New York, a member of the Manitoba Association of Architects (MAA), and has served on the MAA Council since 2011. An accomplished educator, Ralph Stern has more than 20 years of educational experience in public and private institutions in the United States, Europe, and Canada. Ralph Stern served as Dean of the Faculty of Architecture (2010-2015), was a Visiting Fellow at the Bauhaus University Weimar (2016), and served as Special Advisor on Internationalization for the Faculty of Architecture (2017-2018).
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