





ARCH²⁰²¹FOLIO

The University of Manitoba campuses are located on Treaty One Territory, the original lands of Anishinaabeg, Cree, Oji-Cree, Dakota and Dene peoples, and on the homeland of the Métis Nation.

We respect the Treaties that were made on these territories, we acknowledge the harms and mistakes of the past, and we dedicate ourselves to move forward in partnership with Indigenous communities in a spirit of reconciliation and collaboration.

ArchFolio presents a selection of student work from the Department of Architecture in the Faculty of Architecture at the University of Manitoba in Winnipeg, Canada. For more information about our program, please visit our website: <http://umanitoba.ca/architecture/departament-architecture>

Image credits: (Above and right) Calls to Action by the Indigenous Design and Planning Student Association (IDPSA), issued on National Indigenous People's Day, June 21, 2021. Read the full document [here](#).

These Calls to Action are intended to be used as a guide to implement true action within the Faculty of Architecture, which shapes the minds of future designers, architects, and planners who will practice on Indigenous lands. The Calls derive from lived experiences of IDPSA members, who have courageously used their voices to shed light on these matters. The hope they encourage non-Indigenous students and faculty to take on an informed role in allyship and to share responsibility to restore what was lost, reclaim what was taken, and help fight for what is to come./IDPSA

(Front Cover): Cyclical Relations, by Nichola Basford, part of Studio Kahnawiiyaa, "Everyone" - inspired by Robin Wall Kimmerer's *Braiding Sweetgrass*, Indigenous communities of the Grassy Narrows First Nation (Kenora, Ontario), and questions about how architecture can learn from traditional Indigenous knowledge and be more effective in celebrating and responding to the land, animals, one another and the gifts that each season brings.



**University
of Manitoba**

Department of Architecture
Faculty of Architecture

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PART 4: FOUNDATION



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Cultural Awareness Training; Students

We call upon FAUM to implement a **mandatory introductory course** for students entering the Faculty of Architecture as Indigenous awareness, either included in the Urban Media Lab or a University requirement.

The first and foundation year for students entering the Faculty of Architecture is a period for critical content. Although the implemented Cultural Awareness Session in Fall 2019, was met with great support, it was still a condensed version of the wide content of Indigenous matters. **All students who come into the program should have understanding of Indigenous implications to design.**

9

Cultural Awareness Training; Staff

We call upon FAUM to ensure that all staff are informed and have a complete understanding of Indigenous knowledge and connection to land, including histories, historical and contemporary challenges.

We call upon FAUM to require all staff to undertake a cultural awareness training course/or facilitated workshop session, including the dean's office, professors, assistant professors and seasonal instructors.

PART 5: RESOURCES



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Scholarships

We call upon FAUM to include criteria that requires proof of connection to an Indigenous community for any scholarship that is intended specifically for Indigenous students at FAUM.

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Supports

We call upon FAUM to have **culturally safe mental health supports** made easily available for Indigenous students.

PART 6: STUDENT BODIES

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Organizations

We call upon student organizations in FAUM to **advocate for the goals of IDPSA** in the areas of retention, representation, and implementation, to be shared with their respective departments.



A blackboard with white chalk writing. The text is arranged in a circular pattern, starting from the top and moving clockwise. At the top, it says "I closed my eyes and I see nothing but nothing becomes something full of home...". Below this, it says "I closed my eyes to the smell of fresh coconut... I see the wind swooning through the palm". Then, "I see my Lola making banana, oh I wish to have some please." followed by "I closed my eyes to the taste of my water cooling glass - it is so good, I see the flowers waiting out to me." Next is "I see my Lola waving on his boat from the sea," followed by "I closed my eyes to the touch of soft gentle grass, I see a glimpse of his beauty through the night...". Then, "I see the sun glowing, oh so bright," followed by "I opened my eyes to the sight of white snow, I see I'm thousands of miles away from home but let me close my eyes then and maybe this time." Finally, it says "I'll find my way to the kitchen where my Lola is there again". In the bottom right corner, there is a small, simple drawing of a girl with pigtails, wearing a dress and a headband, looking towards the left. The blackboard has a wooden frame visible on the left and bottom edges.

I closed my eyes and I see nothing but nothing becomes something full of home...

I closed my eyes to the smell of fresh coconut... I see the wind swooning through the palm

I see my Lola making banana, oh I wish to have some please.

I closed my eyes to the taste of my water cooling glass - it is so good, I see the flowers waiting out to me.

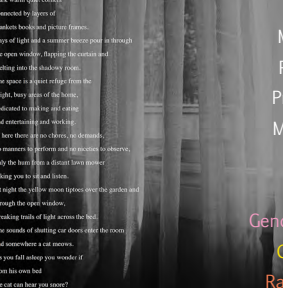
I see my Lola waving on his boat from the sea,

I closed my eyes to the touch of soft gentle grass, I see a glimpse of his beauty through the night...

I see the sun glowing, oh so bright,

I opened my eyes to the sight of white snow, I see I'm thousands of miles away from home but let me close my eyes then and maybe this time.

I'll find my way to the kitchen where my Lola is there again



Junk
 Play
 Maker
 Public
 Private
 Mental
 Safe
 Gendered
 Queer
 Race &

Dark warm sunbeams
 connected by layers of
 translucent floating dust
 Rays of light and a constant breeze pass through
 the open windows, flapping the curtains and
 rustling into the slatting noise.
 The space is a quiet refuge from the
 world. Near a corner of the building
 dedicated to making art, eating
 and experimenting and working
 he built this no chair, in domestic,
 no museum to perform and in places to observe,
 only there the time is slower, less noisy/
 sitting you to read and listen.
 At night the pitch rose up into the garden and
 through the open window,
 strutting lights of light across the fence.
 The reminder of sitting on the floor under the moon
 and somewhere a cat meows
 As you feel sitting you wonder if
 there his own had
 the cat can hear you answer?

[illegible]

My spot on the road, warmth, space is context

Soil connecting

reaching, space to be

to make space

reaches, from here

space, as it thickens, through experience

ready protection from time

born as

learned, substituted by space

learned space, near my spot

as it weaves and is woven

continues

and there

Confidence, through time, to move

< Student Manifestos on Space. TOP ROW: Benita Kliewer, *Space as the Unexpected Dip*; Max Sandred, *The Space We Share*; Teresa Lyons, *Space is Place*; Nichola Basford, *A Seat at the Table*;
MIDDLE ROW: Lexi Brennan, *Inward-Outward*; Sabba Reza, *Fragmented Space*; Cassidy Cantafio, *Gendered Space and its Relativity to Queer Space*; Falmata Osman, *The Eternal Private Space*;
BOTTOM ROW: Nurielle Gregorio, *Dreamland Homeland*; Kate Sherrin, *Bedroom Manifesto*; Chelsea Colburn, *Blended Extensions*; Bailey Taylor, *Path of Space*.



< Studio Scenario emoji 'chat'

Change is the enemy of comfort,
and comfort is the enemy of growth.
And grow we all did.

Congratulations to everyone on getting through
a year of 'normally if's...'
'can you hear me's?'
and 'can you see my screen's?'

Here's to a year of rapid change and growth!
In what ever way you dealt with the changes
brought by COVID-19, and despite lagging WiFi's
and creative photo rooms for models,
we made it through.

We all did excellently just by sticking with it.

- Alixa Lacerna and Romilie Calotes,
incoming UMASS Co-Presidents

Within my screen
I need no car
I wiggle, I wander
With no walls there's no near, nor far

In my screen I have no shades to draw
No bottom to hit
I have no shadow to cast
No fit to bit

So in my screen I'll build a tent
To call my mom and to repent
In my tent I'll nap and snooze
I'll bring my dog so love ensues

He needs a walk, so float we do
We google grass but he won't moo
Though plenty to chase, there's nothing to sniff
No hydrants to mark, only memes to GIF

For my dog I now must sink
So we can walk a winding route
He needs a world with feels and stink
A heavy, sticky real commute

I think my pup might like real space
Where he can leave his golden trace
I will miss my 5G web
But space must flow, not just ebb

- Hannah Tiessen, notmyspace (Space Manifesto)

INTRODUCTION

Space has long been a ubiquitous if ambiguous concept in architecture. 'Remote' work over the last year due to the pandemic has further complicated our understanding of space, reinforcing its paradoxical potential to connect and divide, liberate and constrain, empower and disenfranchise. Confined to home, many have renewed an intimate (sometimes awkward) acquaintance with the limits and potential of their own domestic space, while expanding virtual horizons via a plethora of communicative spaces far and wide. Some have enjoyed new opportunities and surprisingly delightful interactions; others have suffered greater isolation and inequity. The problems and perks are not mutually exclusive. Virtual spaces, like real spaces, are not neutral: both influence our ability to reimagine the world.

How will our intensified experience of remote and mediated spatialities affect the study and design of spaces going forward?

As the following pages show, despite many challenges, students produced spatially and materially exuberant work, while investigating architecture's critical social and ecological promise with creative rigor and courageous grit.

In the History and Theory of Modern Architecture class, students probed depths and complexities of cultural space. In an experimental exercise designed to open new and urgent interpretive paradigms while learning about the history of spatial politics and poetics, students were asked: *In the space of square, declare a manifesto on space!* (Examples at left).

Students also broke through lockdown constraints by extending their voice and vision on the national stage. Two initiatives by IDPSA, the Indigenous Design and Planning Students' Association, deserve special mention: 1/ *Calls to Action*, intended to guide the Faculty in developing truth and reconciliation strategies in areas of recruitment, representation, advocacy, cultural awareness, resource-building, and ongoing collaborations; and 2/ *Voices of the Land*, IDPSA's inaugural publication featuring work by 16 Indigenous students, as well as alumni.

Inspired by IDPSA, and progressive organizations like Dark Matter University, Architects Declare, and Design as Protest, we can learn to leverage physical and digital space to amplify marginalized movements toward social and environmental equity, striving to make all spaces of our shared world more open, just and enjoyable.

/ Lisa Landrum



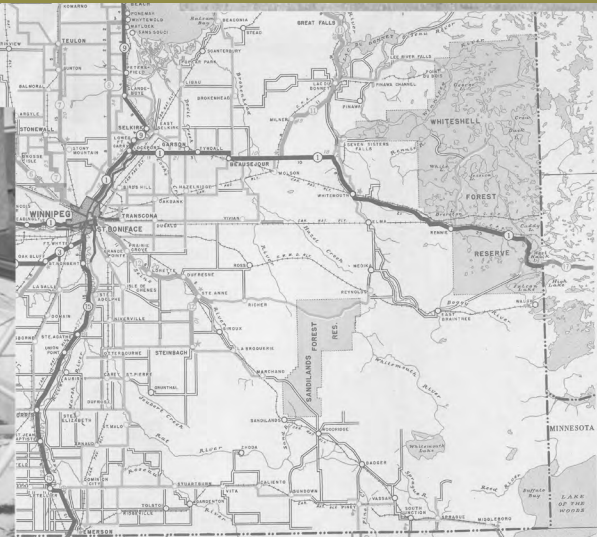
“...In the world of artifacts, there really is no “thing in itself.” In a work of architecture, nothing exists apart from the efforts and intentions that brought it into being and visibility.”

- David Leatherbarrow



Penniac Bay, West Hawk Lake, Manitoba.

MAN.



TOPO ILLOGICAL II

J.A. Baker spent 10 years watching peregrine falcons over the marshes of Essex before writing his novel *The Peregrine*. In its pages he details his accounts of birds in the landscape just beyond his backyard, framing them not as objects to fetishize or to own as a falconer might, but as complex and developed characters he seeks to see more deeply and understand more intimately.² Through this process, his words describe more than the mere objects of his focus. They build a picture of a place and moment continually falling away from the viewer, always changing and continuously aware of the human presence as a disturbance in that landscape. This re-seeing of what we hubristically think of as familiar allows surprising elements of the most real to come bubbling to the surface.

Topo Illogical II is a studio fundamentally motivated to probe the unseen or unassuming materials and relationships that comprise the built world. The studio fosters alternative modes of vision and critique for our understanding of the local context. As studies escalate from our immediate surroundings through the middle ground of our metropolitan area to the remote backdrop of the broader Manitoba region, student work leverages discoveries of the unfamiliar from the assumed. The studio looks to bind history

*"The hardest thing of all to see is what is really there. Books about birds show pictures of the peregrine, and the text is full of information. Large and isolated in the gleaming whiteness of the page, the hawk stares back at you, bold, statuesque, brightly coloured. But when you have shut the book, you will never see that bird again. Compared with the close and static image, the reality will seem dull and disappointing. The living bird will never be so large, so shiny-bright. It will be deep in landscape, and always sinking farther back, always at the point of being lost. Pictures are waxworks beside the passionate mobility of the living bird."*¹

-J.A. Baker, *"The Peregrine"* 1967.

to regionality, to materiality, to resource extraction, to ruin. The goal of this union is to construct a more holistic picture of place and practice. The studio will attempt to cease treating architectural constructions as static or autonomous object compositions and instead engaging them as temporary states in flowing systems of time, matter, and culture. Through this approach, design research constructs the basic foundations of critical empathy in design that the craft and practice of architecture requires of us.

In speaking about the sticky and interconnected reality of matter in architecture, David Leatherbarrow writes: "...in the world of artifacts, there is really no "thing in itself." In a work of architecture, nothing exists apart from the efforts and intentions that brought it into being and visibility."³ With this focus, the studio collectively considers and tests a proposed model of topological thinking. Rather than engaging the idea of topology in architecture as a drive towards tortured geometric computations in service of an aesthetic or imagined totality, *Topo Illogical II* uses it as a model to examine architecture as an artifact inseparably lodged in systemic context.

First term explorations ask students to examine, extract, process, tool, and finally, inhabit the material palette of their urban surroundings in Winnipeg. Through this process, architectural study is not only the proposition of an anticipated future construction or the action inside the studio, but also inclusive of the endeavors of obtaining, harvesting, and shaping of its subject.

In the second term, the studio expands its view to sites across Manitoba broadly defined as "ruins." Keying into local systems with empathy and imaginative vision, the studio proposes "museological architectures" specific to the material, social and biological ecosystems that precede them. These propositions are prioritized to be more than a container to hold artifacts, and instead elect to perform and embody the museological exercise through their conception, construction, and relationships. Here architecture quickly declares itself a contested inflection point between past, present, and future as well as the human, nature, and artifice.

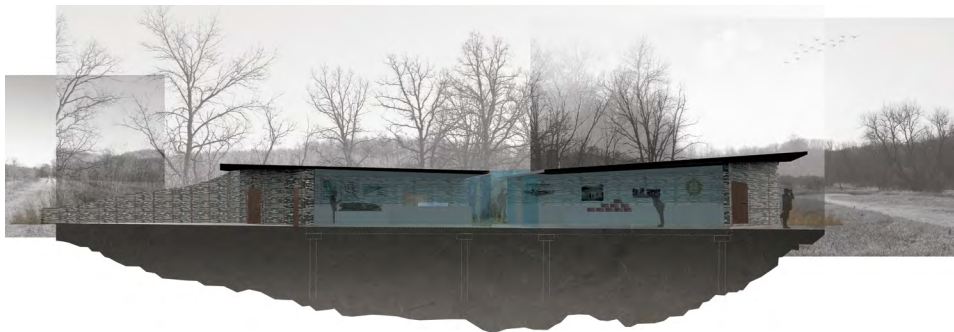
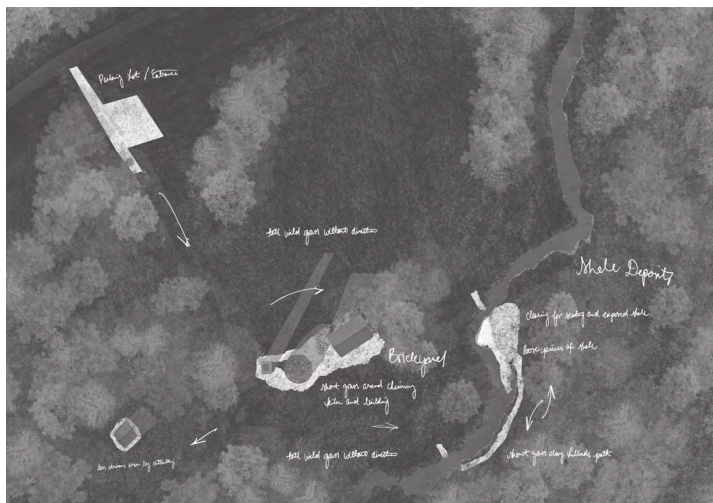
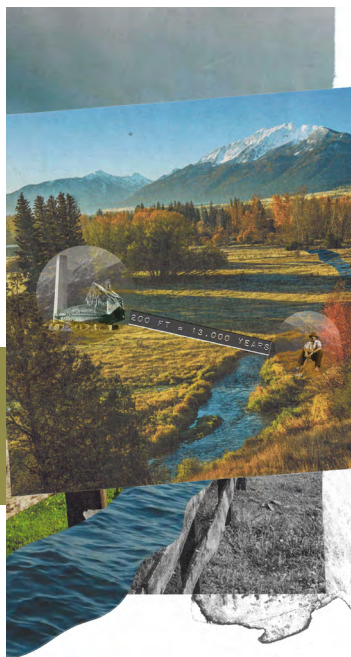
¹ Baker, J. A. *The Peregrine* (New York: Harper & Row, 1967), 36.

² Cynthia Zarín, "Time Out: The Beauty of J. A. Baker's *"The Peregrine,"*

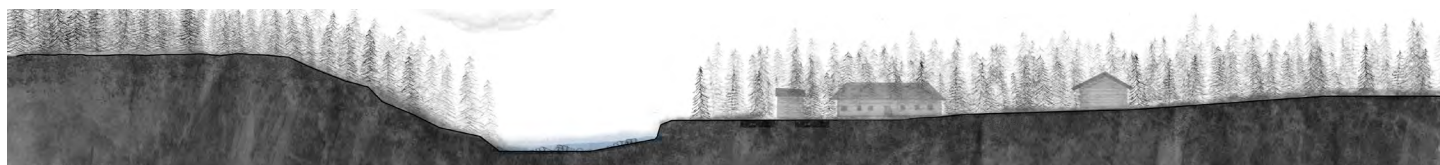
New Yorker, April 17, 2017.

³ Leatherbarrow, David, *Architecture Oriented Otherwise* (New York: Princeton Architectural Press, 2009), 81.

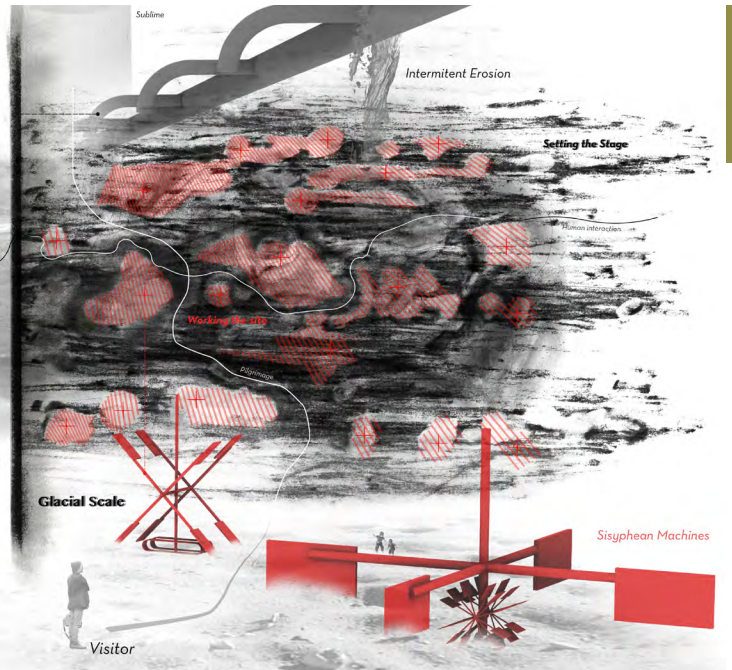
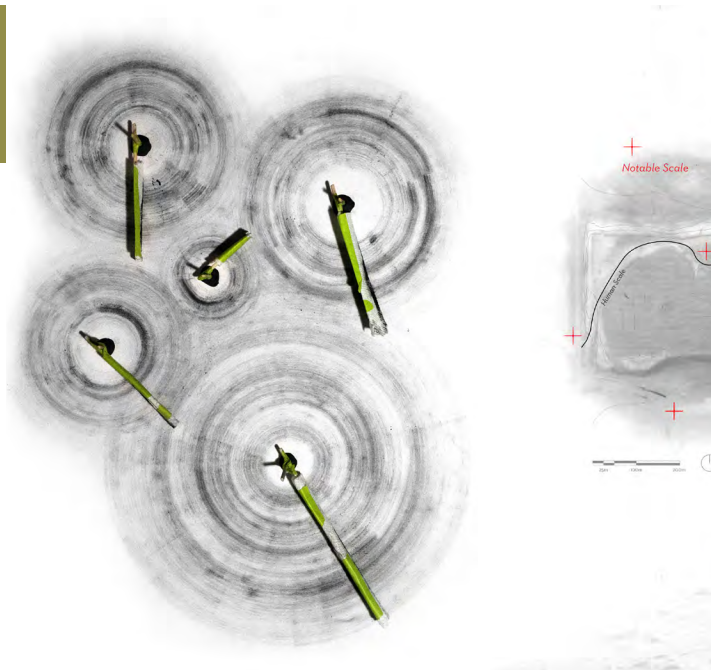
1-6: Katarina Toews - Site collage (1); Tall grass path perspective (2); Schematic site plan (3); Site section (4); Shale museum entry perspective (5); Shale Museum section (6)



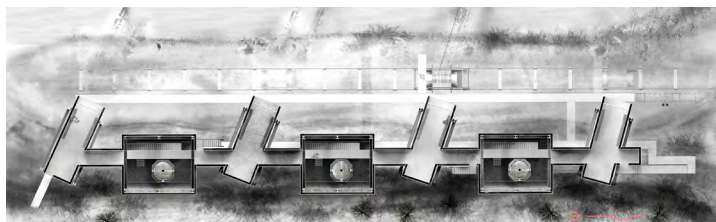
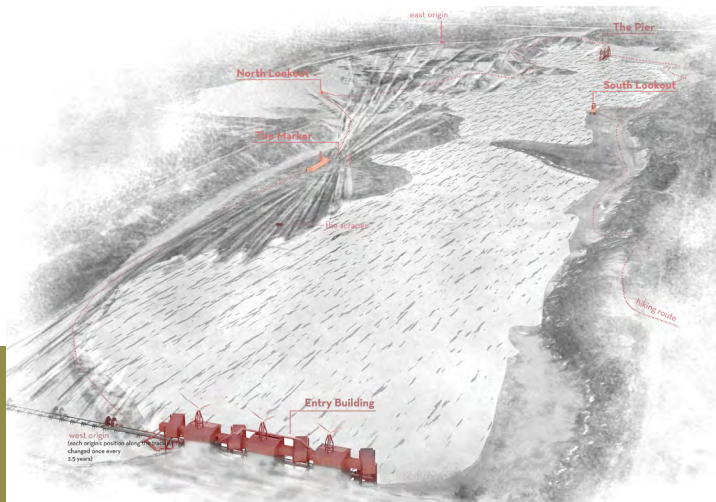
1-7: Brook Rocquigny- Cosmo-terra drawing (1); Cosmo-terra museum entry perspective (2); Site plan (3); Sky-to-earth vertical panoramic window (4); Museum section (5); Museum transverse section (6); Site Section (7)



1-4: Max Sandred - Anthropocene montage drawing (1); Swim platform plan with turbine pylons (2); Reciprocal drawing device (3); Site intervention montage (4)
 5 & 6: Student Name - Description Image (5); Description Image (6)



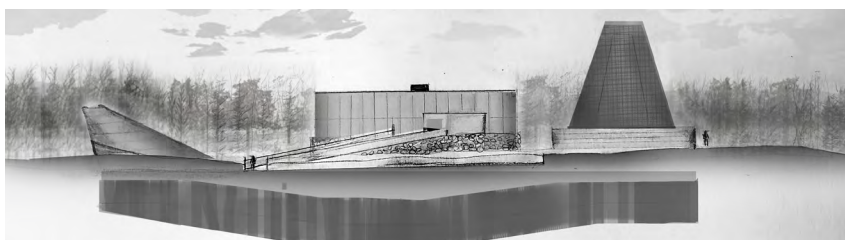
1-4: Max Sandred - Projected aerial site view (1); Landform device marker section (2); Entry building turbine hall plan (3); Entry building turbine hall section (4)

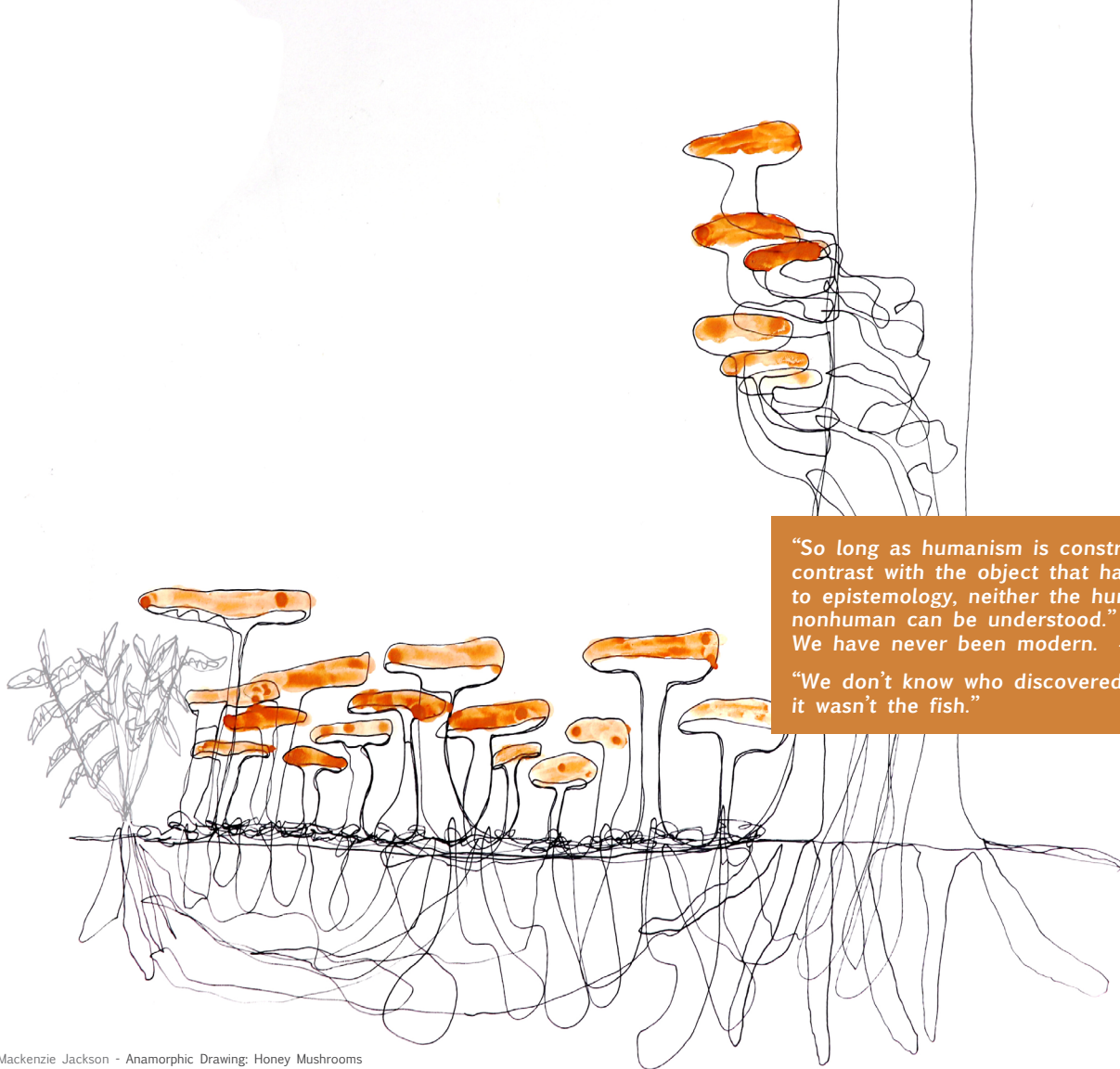


1-4: Kaylee Peters - Inverted projection of excavated shaft (1); Shaft cap interior perspective (2); Archival site photos (3-4)



1-4: Kaylee Peters - Surface site plan with subterranean traces (1); Site surface perspective (2); Museum section (3); Shaft opening experiential view (4)





“So long as humanism is constructed through contrast with the object that has been abandoned to epistemology, neither the human nor the nonhuman can be understood.”

We have never been modern. - Bruno Latour

“We don’t know who discovered water, but we know it wasn’t the fish.”

- Marshall McLuhan

For 2.5 million years humans thrived upon a coexistence with the natural world; gathering plants and hunting animals with little to no intervention. All this changed about 10,000 years ago, when sapiens began to devote almost all their time and effort to manipulating the lives of select animals and plant species, introducing a revolution to the way humans lived – the agriculture revolution.

- Yuval Noah Harari. *Sapiens: A Brief History of Humankind*. HarperCollins, 2015

This revolution was not only a technological transformation, but an existential and ontological one as well. "Nature" was reduced to a "thing" or a surface, edited to a primary object that can be owned and territorialized. Shifting the collective perception of land, from an inclusive and coinhabited ecological existence to a reduced abstract object, defined by political ownership.

We have moved indoors while the natural world has remained outdoors; drawing a distinct separation and paradoxical relationship between man and "nature".

This is why we need to find other ways to coexist, striving to be inside of nature rather than apart from it. This is also why we need to find other ways to talk about entities, or objects; ways that don't reduce things to dull substances for human subject; ways that implies

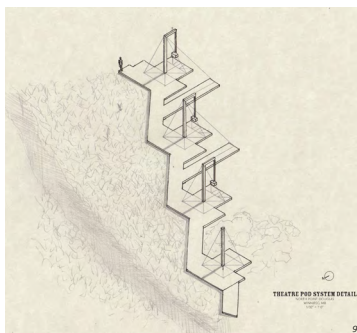
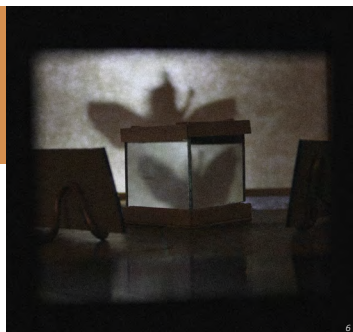
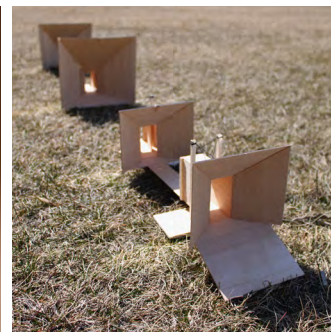
that there are more scales, and that the human-world correlation doesn't sit on top. We need to inhabit the "middle" ground.

In his recent book *Humankind: solidarity with nonhuman people*, Timothy Morton, a professor and theorist considers humankind as being bigger on the inside because we are much more than what we can point to in a physical sense (economic patterns, consumption habits that are shaping our global scale) and therefore, attuning to who we are, includes other lifeforms and other beings which says something about who we are in return. "Humankind is solidarity with nonhuman people". (Morton, Timothy, *Humankind: Solidarity with Nonhuman People*. Verso, 2017)

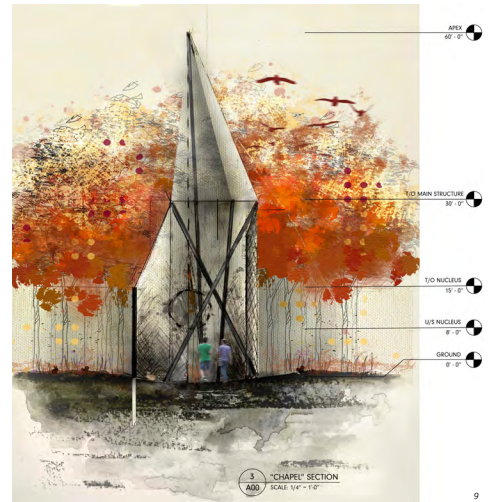
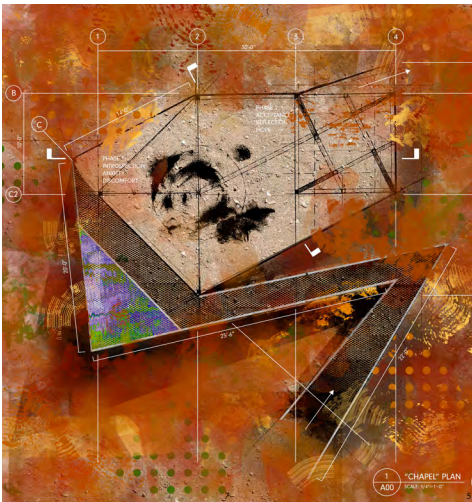
Calling for action, this studio intends to capsize our anthropocentric approach and explore architectural

space through the lens of a biological time span and anamorphic space of the "biocene"; inviting nature to advance across the threshold, ceding our colonial definitions of "territory" and appeal for solidarity with nonhuman people.

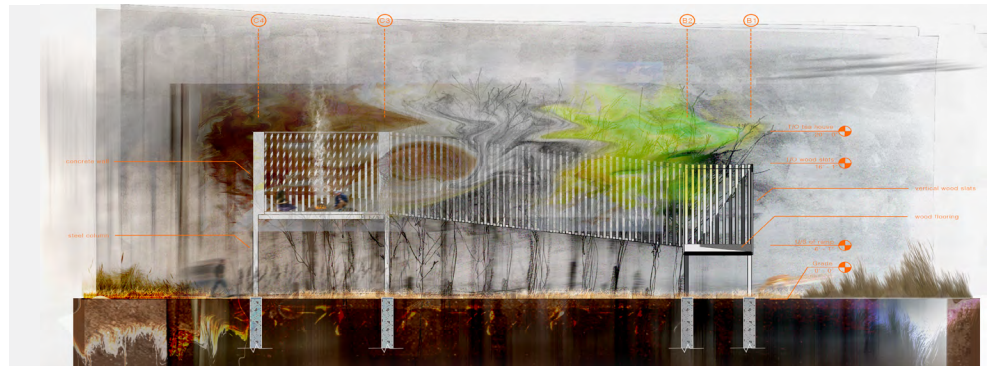
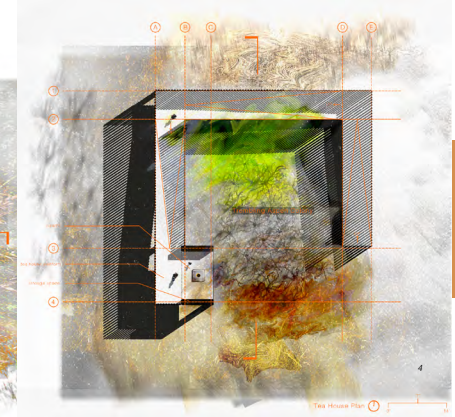
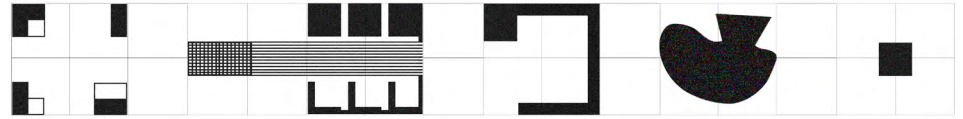
1-10: Dallin Chicoine - The Great Plains Ladies' Tress (1); The Bombus Fervidus (2); Mixed Media Drawing: The interaction between the Bee and the CPLT (3); Staged Anamorphic Model made of Paper, Wire, and Wooden Dowels (4); Reflective Wrap, String, and Basswood Model, Photograph (5); Viewfinder Model made of Glass, Wood, Mirror, Wire and Parchment Paper Photographs (6); Mixed Media Drawing: Perceptions of Presence (7); Ink and Graphite Drawing on Parchment Paper (8-9); Ink, Watercolour, String, Reflective Tape, and Digital Media on Watercolour Paper (10)



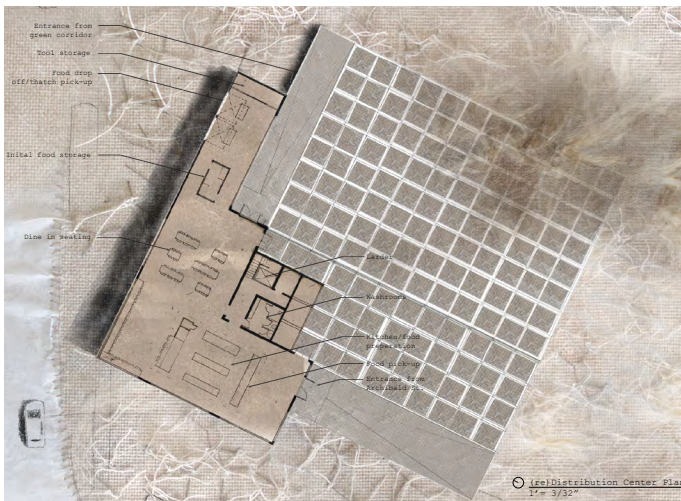
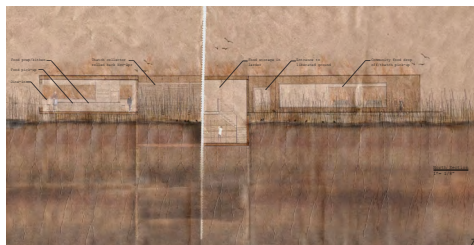
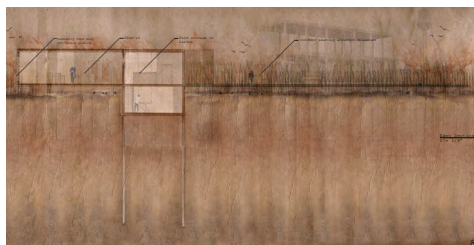
1-12: Derelyne Raval - Equilibrium Model (1); Mycelium Growth Models (2); Consumption (study) Models (3-4); Final "Chapel" Plan (5); "Chapel" Perspective (6); "Chapel" Section (7); "Chapel" Persepective (8); "Chapel" Section (9)



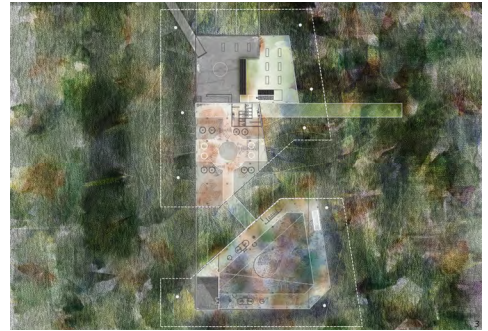
1-9: Falmata Osman - Biodegradable study model (1); Parti Plan (2); Drying Racks/Medicinal Storage Plan (3); Tea House Plan (4); Ecological Site Plan (Fall) (5); Drying Racks/Medicinal Storage Section (7), Organic Chemistry Lab Elevation (8); Tea House Section (9)



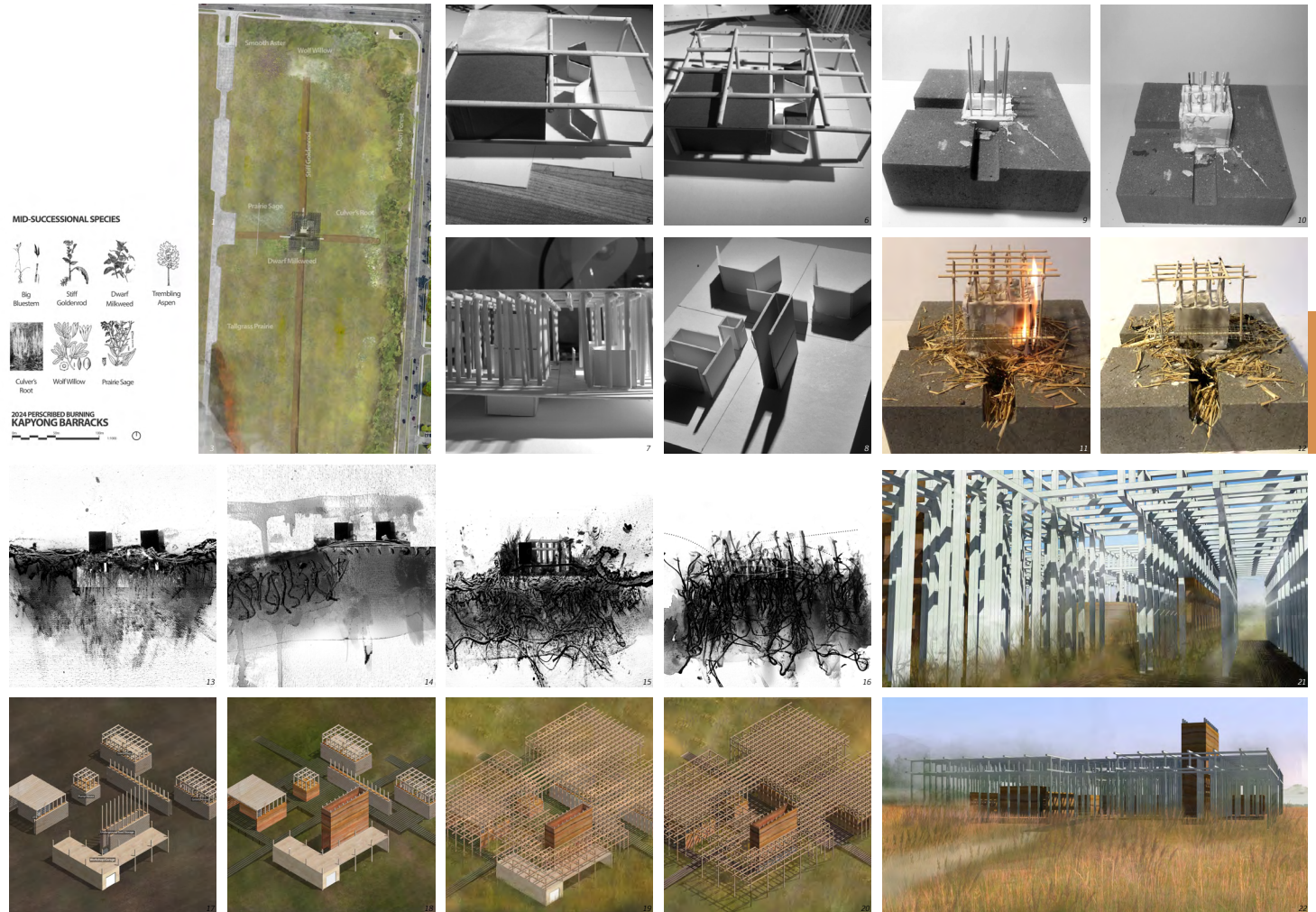
1-8: Lauren Bennett - Process of drawing nature: Watercolour on canvas, trace, thread (1); Drawing nature with building: Watercolour on canvas, trace, thread (2); Blackout Drawing: Graphite on Paper (3); Niche Collage: Burlap, leaves and big bluestem (4); Andropogon Gerardii: Graphite and watercolor on mylar (5); Final proposal with details: Mixed media (6); Final proposal north section: Mixed media (7); Final proposal east section: Mixed media (8)



1-8: Mackenzie Jackson - CONSTRUCTION: Phase 2 (1); CONSTRUCTION: Phase 4 (2); CONSTRUCTION: Phase 6 (3); Section 1 (4); Section 2 (5); Perspective 1 (6); Perspective - Interior Tap Room (7); Perspective 2 (8)



1-12: Michael Wu - Ecological/Phased Site Plan ; Phase Models (5-8); Burn Models (9-12); Drawings Exploring the Relationship between the Architecture + the Site (13-16); Drawings Depicting the Life of the Building (17-20); Perspectives (21-22);



Technology is not neutral. We're inside of what we make, and it's inside of us. We're living in a world of connections — and it matters which ones get made and unmade.

Donna J. Haraway



The wonder of it all is that what looked for all the world like a diminishing horizon has, like some marvelous philosophical riddle, turned itself inside out to reveal its opposite. What appeared to be a question of object/nonobject has turned out to be a question of seeing and not seeing, of how it is we actually perceive or fail to perceive “things” in their real contexts. Now we are presented and challenged with the infinite, everyday richness of “phenomenal” perception—one which seeks to discover and value the potential for experiencing beauty in everything. -Robert Irwin

HYPER- LOCAL / COTTAGE INDUSTRY

1: Beyond the merely physiological and psychological, feeling at home reaches to our perceptive and cognitive systems: as architects we absorb the world in order to find plausible translations (architecture), and perception is central to the process of perceiving. When the options to move around these days seem forcefully reduced by an unpredictable pandemic,

staying at home becomes the best option. So why not use this unique opportunity to dive in the hyperlocal spaces of domestic intimacy? In this new contradictory state, hyperlocal confuses with hyperglobal: without leaving the house we reach out to the vastness of the world through the Internet and digital technologies. This studio resides within this gap, in between the physically immediate and the digitally expansive. Within this cavity lies a world of pure wonder and possibility.

Keeping focus on the hyperlocal, we will use psychogeographic techniques to understand place and space beyond the eye by “studying the precise laws and specific effects of the geographical environment, consciously organized or not, on your emotions and behavior,” as Guy Debord proposed

in his ruminations around his situationist thinking. We will seek to find alternative representations and personal readings by roaming around the house and going around the block, digging like an archeologist at times, transforming your own local inside-out. Through restless observation and careful analysis, you will develop design tools from the ground up. Ultimately, understanding that architecture is essentially memorialized (past), lived (present) and propositional (future), we will develop creative exercises and design proposals connected to your own experience of dwelling.

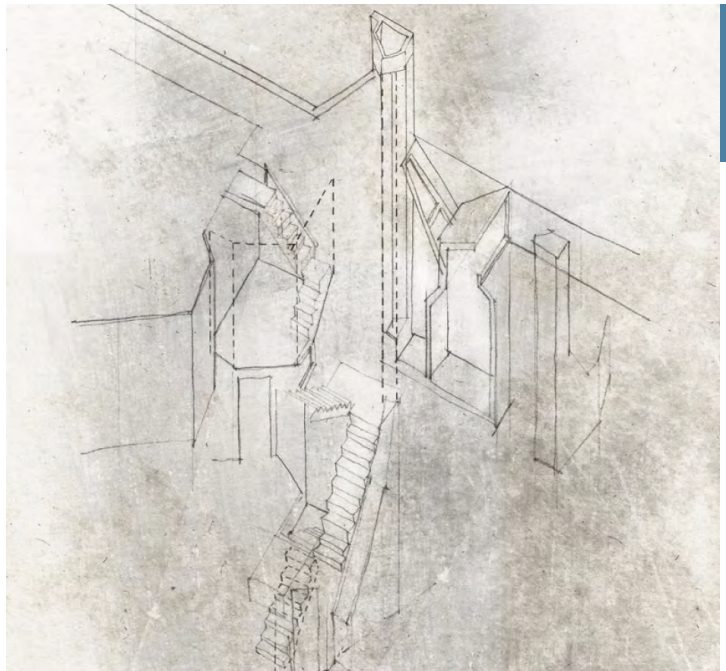
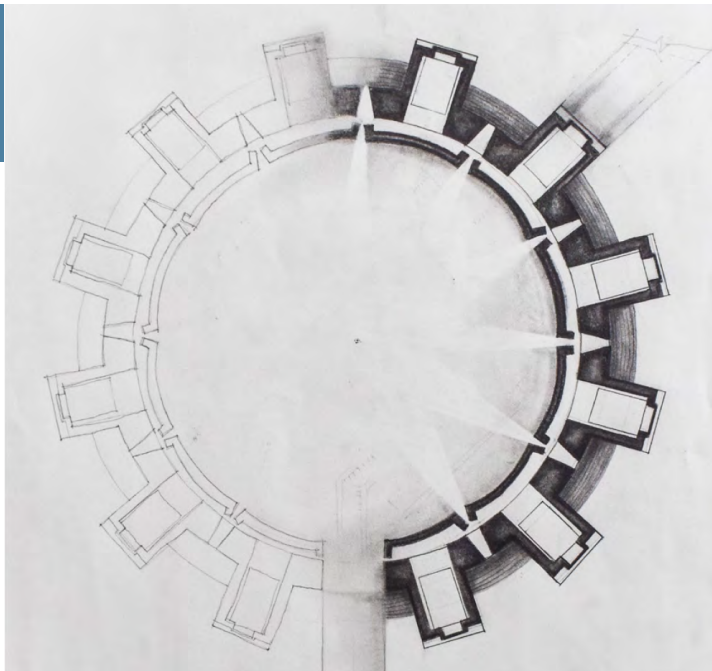
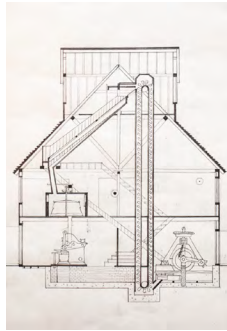
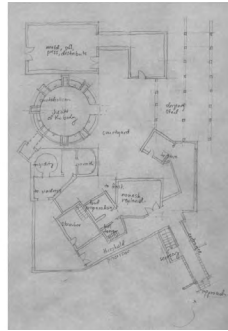
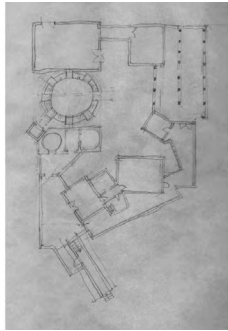
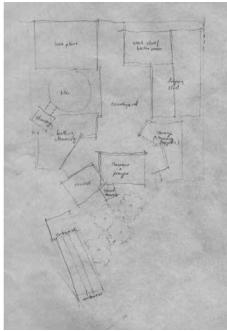
2: Industrial buildings, large-scale infrastructures and their landscapes often conjure negative associations: pollution, climate change, ecological disasters, or the dubious human traits that propagate them. But sometimes these buildings and landscapes possess a beauty that belie the negative qualities they often represent. Ranging from brutal simplicity to lushly complex organic meshes of shapes, the forms are dictated by human logic and knowledge of a certain time and place. They are designed and built using a directive to promote the most efficient production, movement and containment of materials in sequences of refinement or rendering. Any human spaces or interfaces that are present are in support of ensuring the smooth operation of the central process, the recognizable elements of “architecture” seemingly present to offer a semblance of a design sensitivity to an otherwise unsympathetic specimen. Ironically, the ruthless logic and often immense scale of their forms

are in many ways more akin to a natural phenomenon than a designed one.

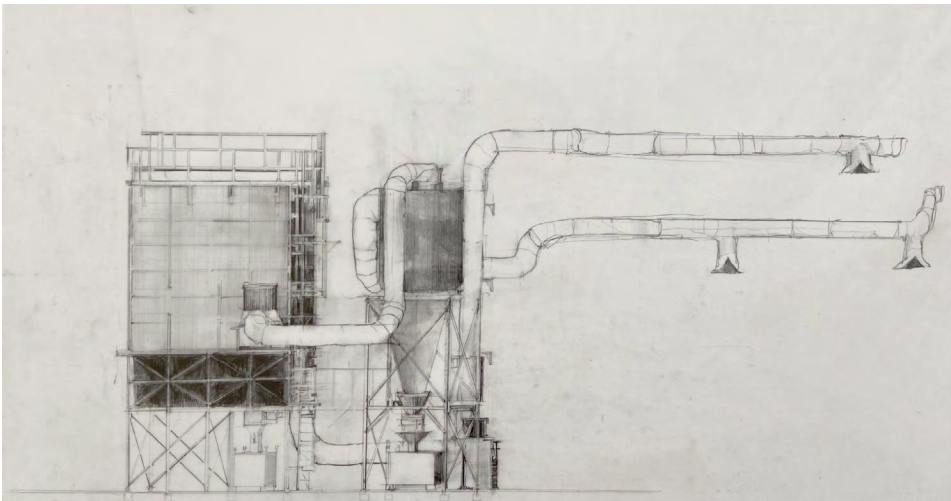
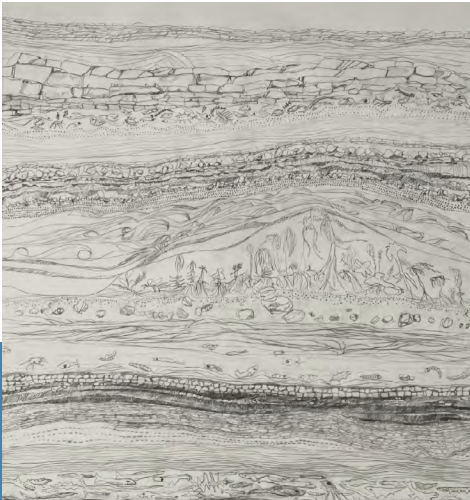
This architecture is largely indifferent to human scale and behaviours, but nonetheless requires human interface and occupation. In more recent history, industrial buildings have tended to migrate away from urban centres and instead grow at the fringes of human settlement or in dedicated “parks”. Despite this separation, they remain a fixture in our collective physical and experiential landscapes and occasionally you can find places where the two worlds collide unexpectedly.

This studio seeks to find common ground between dwelling and industry, to explore, record, and analyze our relationships with industrial architecture and propose specifics way with which we can become entangled with it and exposing hybrid opportunities. This proposition probes into the extremes of what live-work scenarios can entail.

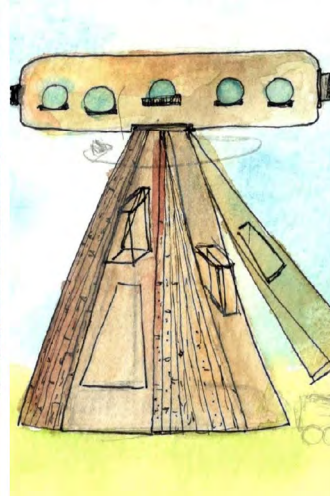
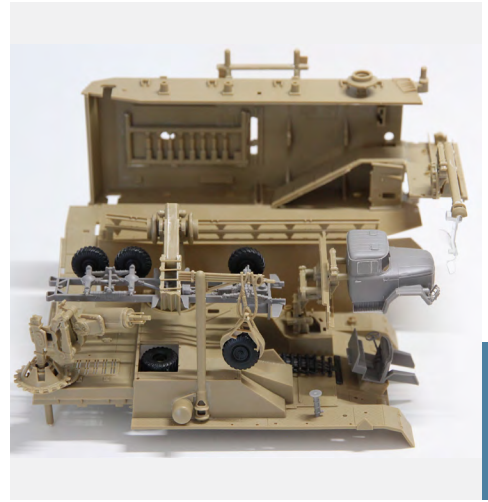
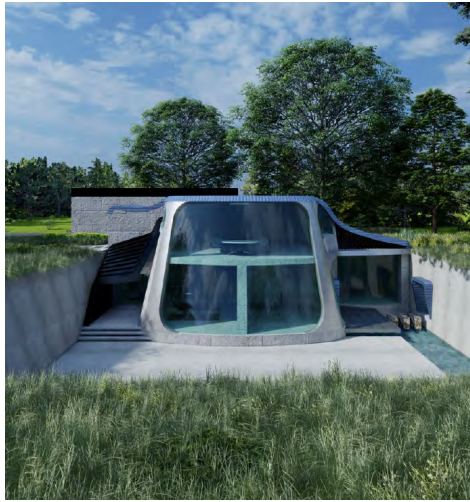
1-5: Angeline Reyes - Brickworks/Dwelling Plan Development (1); Brick Plant Section Drawing (2); Courtyard Perspective (3); Kiln Plan (4) Section Axonometric at Dormitory Stair (5)



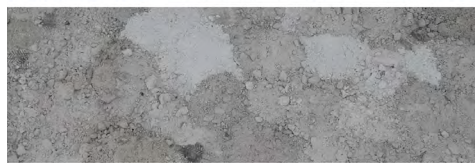
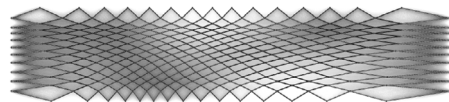
1-4: Tara Fuller - "Yesterday's gardens" Speculative Ground Section Detail (1); Perspective of Quarry's Artist Residence and Studio (2); Dust Collection Infrastructure (3) Gathering Site (4)




1: Alessia Foderaro - Bridge Perspective (1); 2-3 Ka Long Frank Wong Test Driver's House Elevation (2); Kit-Bash Study Model for Truck Manufacturing Facility
4 - 6: Alexandra Margulets - Study Water Colour Drawings for Cement Plant Occupation



1-2: Raegis Nepomuceno - Speculative Section of Green Sand Casting Facility (1); Casting Equipment Collage Drawing (2); 3: Parvin Ata Bridge Study Model (3) 4: Ariana Streu - Concrete Plant 'Decoy' Site Plan (4)
5-6: Kyle Peters - Snow Dump Ground Pattern Photograph Studies (5); Section Drawing of Snow Dump Passive Cooling Relationship



The image is a digital artwork depicting a lush forest scene. In the foreground, a path of tall, golden-brown grass leads into the distance. On the left, a person with a large backpack is walking away from the viewer. On the right, another person with a backpack is standing, and a third person is sitting on the grass nearby. The background is filled with dense green trees under a sky with soft, white clouds. A bright blue rectangular box is superimposed over the middle of the image, containing white text. The overall style is painterly and serene.

“The way that Canadians understood homelessness by the Canadian definition was about not having a house to live. I realize that it was more about a dispossession from something called ‘all my relations’ which is an Indigenous worldview where everything is interrelated, interconnected.”

- Jessie Thistle

KAHNOWIILYAA "EVERYONE"

The housing crisis has been one of the most significant challenges facing northern communities for several decades. The Senate report on housing in Indigenous communities [1] has indicated that housing conditions are deteriorating fast due to the increased demand for new housing units, overcrowding, mould contamination, poor construction, and the high numbers of homes in need of significant repair. In addition, the problematic social and physical conditions facing Indigenous communities have caused an increase in homelessness and addictions nationally.

Both Indigenous and non-Indigenous communities have an essential role in reconciliation by recalling the ecological, social and communal responsibilities that have been abandoned in place of colonial methodologies. The OHRC was clear on how this can be addressed when it stated that the government and other organizations must all partner with the local initiatives dealing with hands-on projects as soon as possible to help provide the funding and technical aid for local organizations to flourish [2].

By prioritizing colonial practices, communities have experienced a disconnect from tradition, leaving many Indigenous communities and individuals out of balance.

Furthermore, social policies continue to encourage the abandonment of Indigenous tradition and culture. If sustainable housing is to be addressed, a new methodology and approach are needed, returning to culture and tradition.

Based on Indigenous ways of seeing, the studio unified academics, grassroots initiatives, medical professionals, cultural guides and people with lived experiences in homelessness to find ways to approach this matter and strengthen the community. As a collective, the work sought to unpack and recognize systemic and structural barriers that prevent people from becoming housed. An overarching focus during the studio was Mino-Bimaadiziwin (the good life) for all nations people. The process created an environment inclusive of Kahnowiilyaa (Everyone) and reduced the hierarchical structure between members.

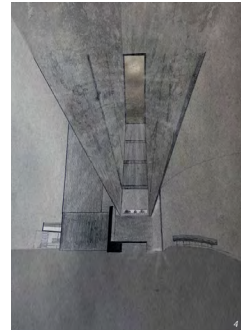
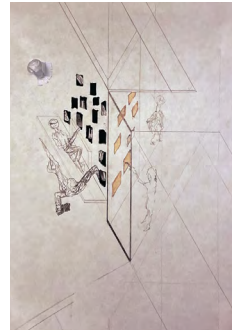
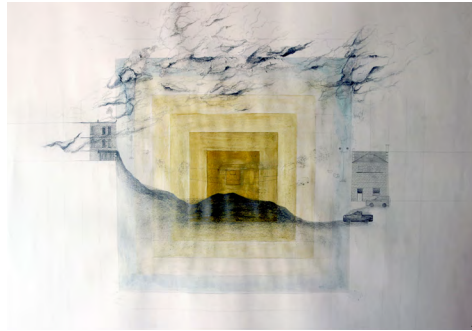
A collective voice can restore, identify and reduce systemic and organizational barriers to housing and find forward-thinking solutions for the transformation of housing services. This body of work explores and represents a collective voice, prepared to identify and reduce systemic and organizational barriers to housing and find forward-thinking solutions for the

transformation of housing and healing services.

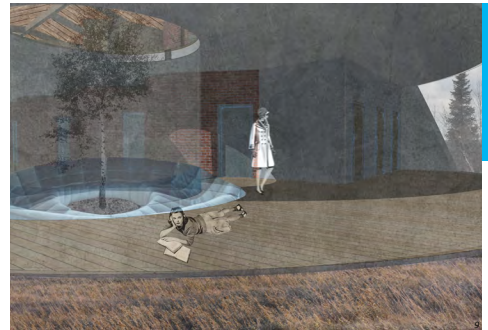
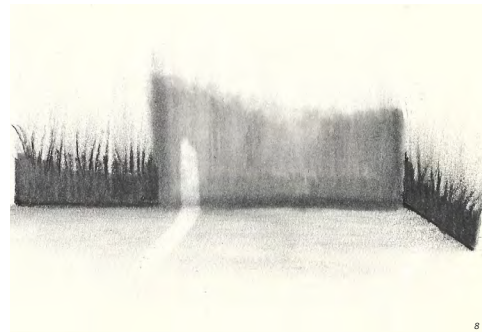
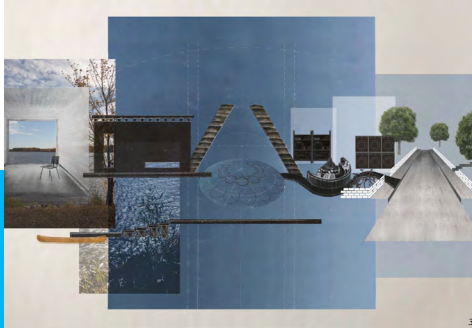
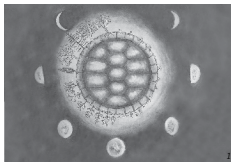
1. *Housing on First Nation Reserves: Challenges and Successes, 2015, Interim Report of the Standing Senate Committee on Aboriginal Peoples*, <https://sencanada.ca/content/sen/Committee/412/appa/rep/rep08feb15b-e.pdf>.

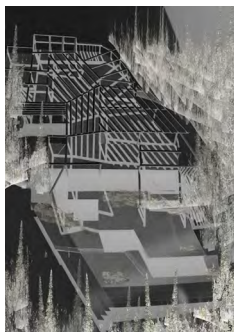
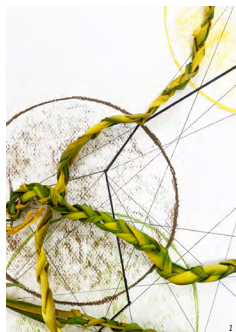
2. *Ontario Human Rights Commission, "Report and recommendation on Homelessness in Kenora Ontario Human Rights Commission", July 07, 2020*, http://www.ohrc.on.ca/en/news_centre/report-and-recommendations-homelessness-kenora

1-7: Hannah M. Thiessen - Drawing discussing water governance role of Indigenous women (1); Site Relationship drawing (2); Study drawing discussing dialogue between members of the street family (3); Main entrance (4); Perspective (5); Exchange wall (6); Street Perspective (7) 8-10: Stacey-Leigh M. Berrington - Concept Drawing (8); Approaching the Transitional Home (9-10)



1-5: Nichola A Basford - Cycles of Healing (1); Site Plan (2); Transitioning from public to private (3); Approaching the Community from the path (4); Section through homes (5)
 6-10: Ali Impey - Nuclear Family (6); Physical Model (7); Study drawing of the Longhouse (8); Interior Perspective (9); Rear perspective (10)

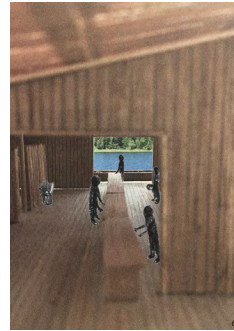
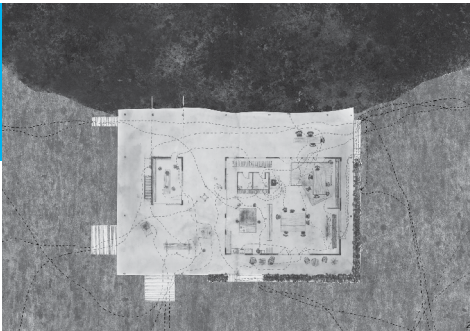




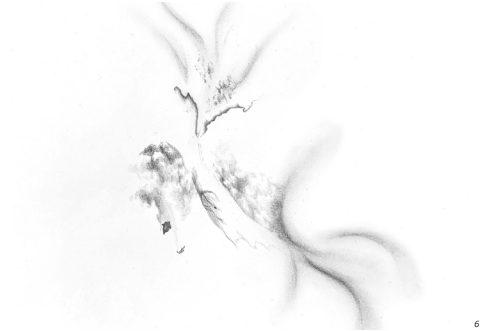
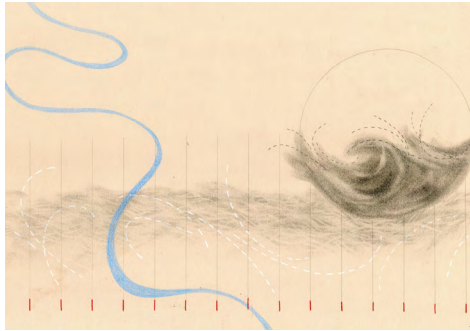
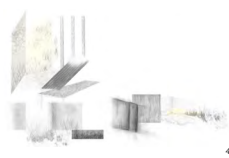
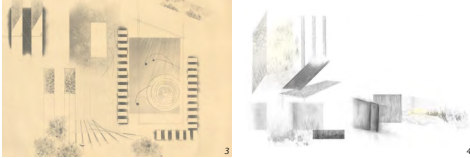
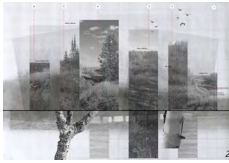
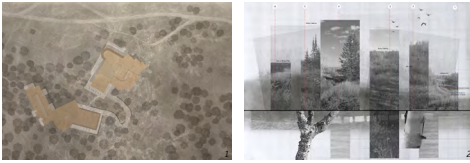
1-12: Teresa M. Lyons - Drawing studying transition (1); Healing Frame work (2); Log wall and clay mortar (3); Log wall and clay mortar detail (4); Structural Frame (5); Interior Perspective (6); Spatial study (7); Site Mapping (8); Construction drawing (9); Construction process (10); Clay wall construction (11); Green Roof construction (12)



1-9: Kate O. Sherrin - Site Drawing (1); Plan of Community Building (2); Kitchen and workshop building (3); Exterior perspective of porch (4); Night Perspective (5); Dining and work area (6); Entrance way (7); Study (8); Perspective of Community Building (9)



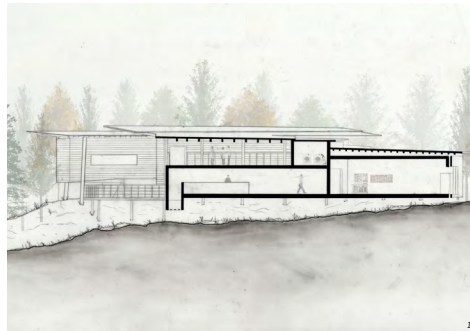
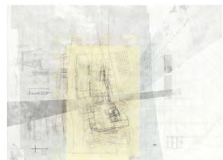
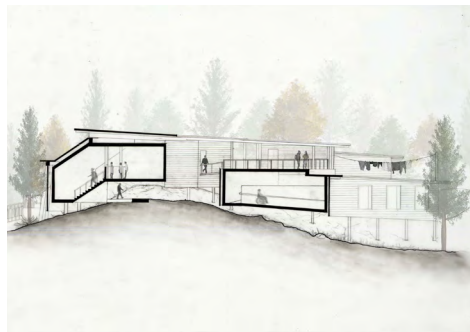
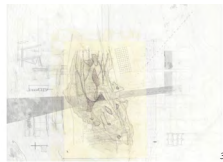
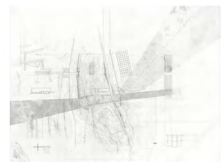
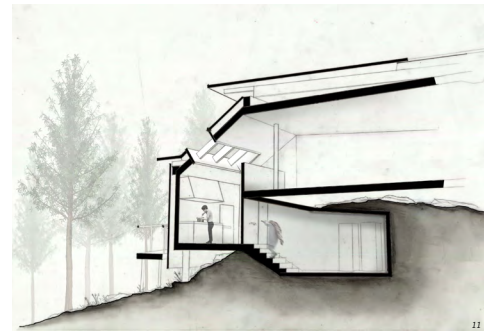
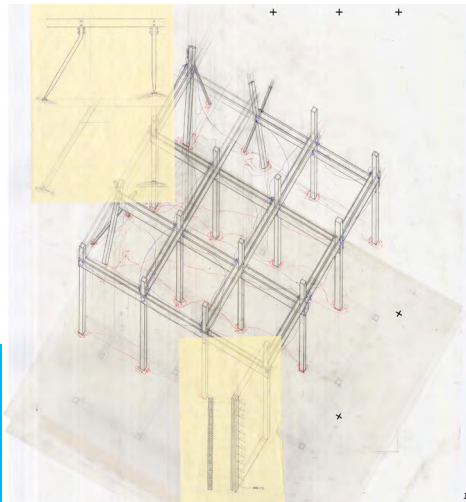
1-12: Micaela L. Stokes - Site Plan (1); Site Investigation (2); Phenomenological study of the clinic (3-4); Drawing looking at the process of healing over time (5); The formless house (6); Site Section (7); Plan of Clinic (8); Codependant housing perspective (9); Perspective of Clinic (10); Interior Perspective of codependant housing (11); The building unfolding into nature (12)




1-17: Kirsten D. Wallin - Three sisters concept (1); Site Plan (2); Proposal development (3); Relationship Drawing (4); Bedroom Suite (5); Flex Market Space (6-7); Public Fireplace (8); Public Fireplace at night (9); Public Cooridor (10); Post Office (11); Communal garden (12); Medicine Garden (13); Healing Centre section (14); Housing Entrance (15); Outdoor gathering Space (16); Resource Centre (17)



1-12: Rhys T. Wiebe - Construction process study drawing (1); Drawing looking at desing narative (2-5); Plan Drawing (6); Second Floor Plan (7); North Elevation (8); Section (9-10); Section Perspective Drawing (11); Site Drawing looking at the the real and imagined (12)





“Designing for life out there should teach us how to find real economy, but also how to extract real value -and real pleasure- from the resources that we use on Earth”

- Andrew Nahum

BIOM STUDIO: (RADICAL ARCHITECTURE) FOR EXTREME ENVIRONMENTS

Lovelock's Gaia theory describes our planet as an ever changing super-organism capable of self-regulating and sustaining life. As such, it has overcome multiple chemical, climatic and geological crisis, and it will continue to do so despite humans' best efforts to destroy the biosphere. Rockstrom identified nine interconnected planetary boundaries that represent critical Earth systems for human survival, and estimated that we have at least transgressed three of these boundaries: climate change, biodiversity loss and nitrogen cycle. This affirmation reinforces the idea that our planet is a complex system of hierarchically organized structures that thrive in a delicate balance of positive and negative feedback loops. As a resilient system, Earth tolerates disruptions and it is able to return to a dynamic equilibrium, but there are thresholds that if disrupted simultaneously or repeatedly can provoke a planetary collapse.

In this context, learning from Nature's resilient strategies appears as a humbling, and yet powerful, approach to rethinking our aspirations as a species, but also as designers. The BIOM Studio is positioned in this territory where architectural creation is inspired by a careful consideration of Nature's lessons of adaptation and survival to address environmental challenges and respond to societal and technological requirements of our profession.

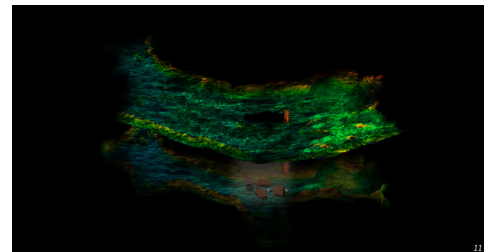
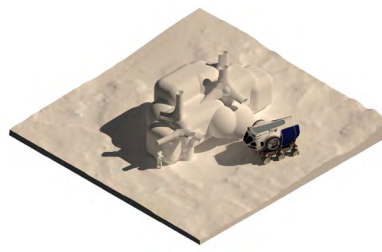
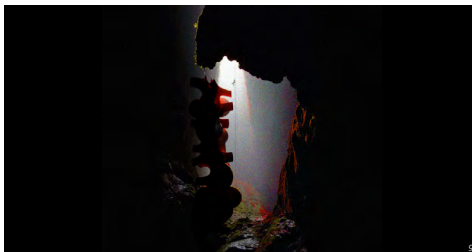
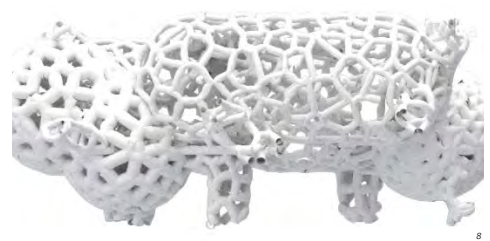
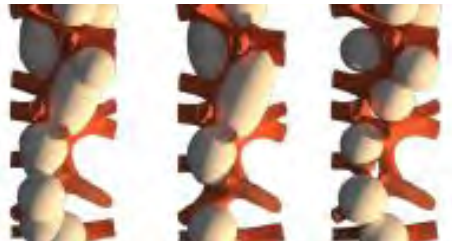
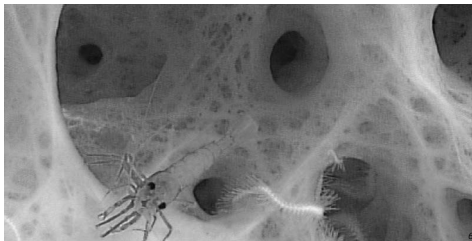
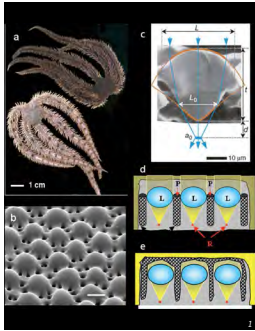
Manifestations of Earth's system disruptions in human infrastructures are abundant. From flooded cities, to inadequate air quality in buildings due to air pollution or sudden health risks, as well as failing structures caused by atypical strong winds, and escalation in resources use (energy-material) and GHG emissions to maintain hygrothermal comfort, among others. This disrupted reality is slowly but consistently becoming the 'new normal' and architects have to be prepared to

work in extreme environments, and more importantly, in cooperation with these environments.

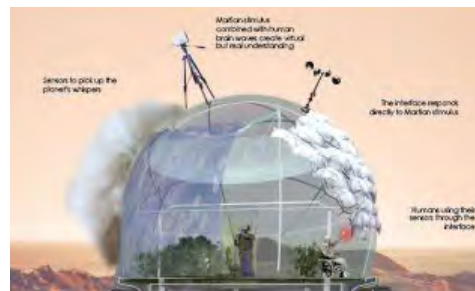
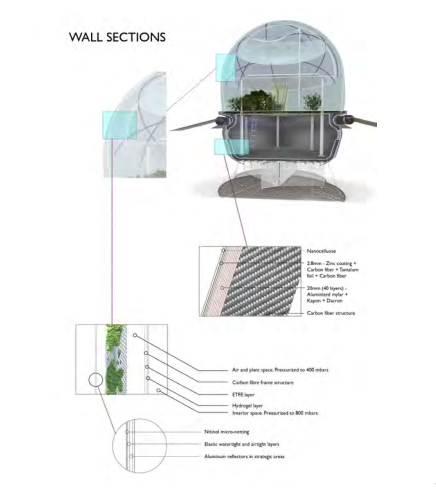
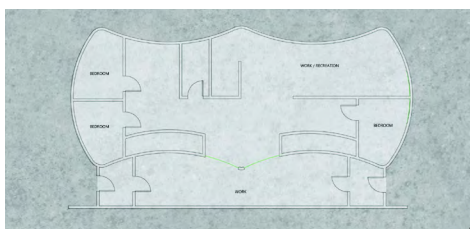
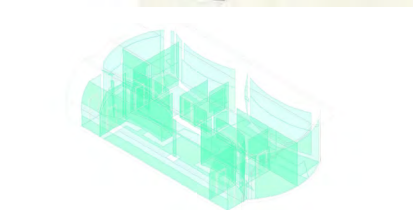
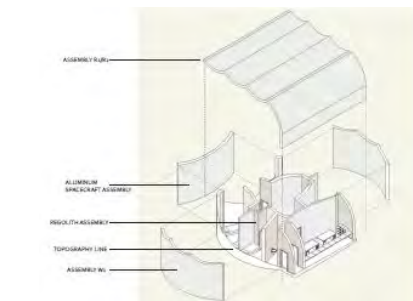
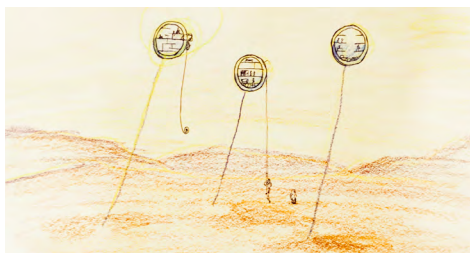
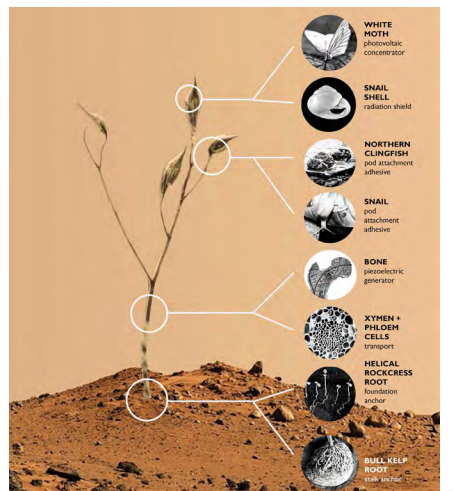
Extreme environments can be defined by climatic conditions (e.g. extreme temperature, humidity, winds), by social conditions (e.g. COVID's imposed isolation, housing crisis caused by overpopulation/market, social inequality) or even by outer space requirements (e.g. orbital habitats, Moon or Mars colonies). However, in all cases architects have to become true system thinkers if we are to transcend the boundaries of our discipline.

In doing so, the BIOM studio will encourage students to explore biologically inspired venues to expand their creativity, undertake environmental challenges and deliver radical architectures for extreme environments.

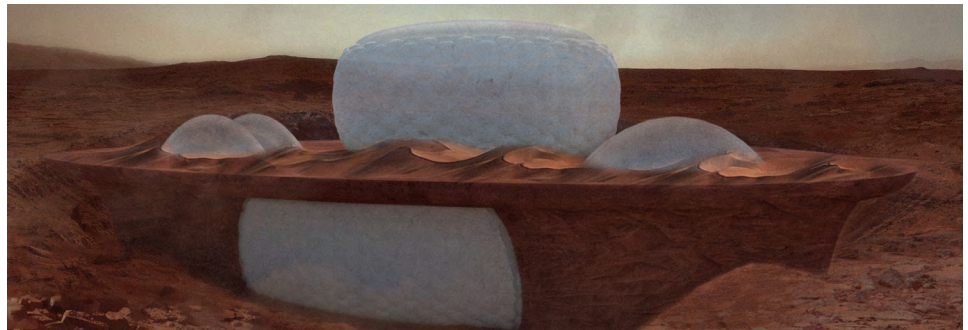
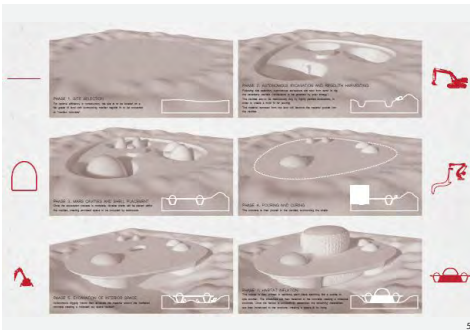
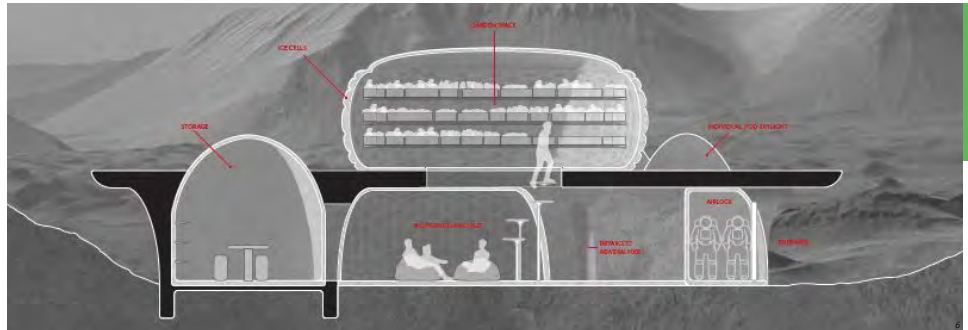
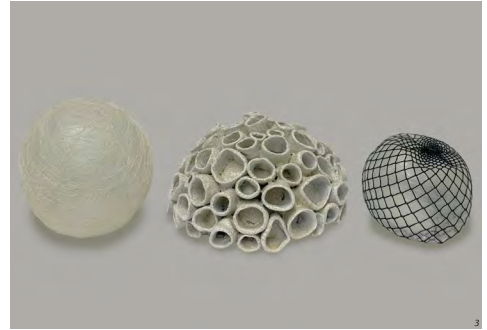
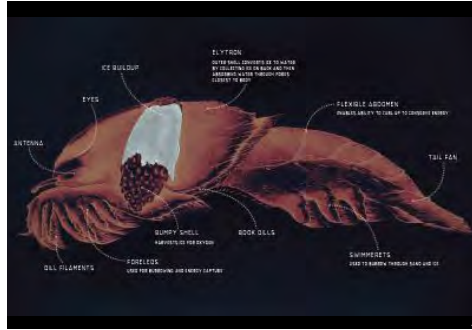
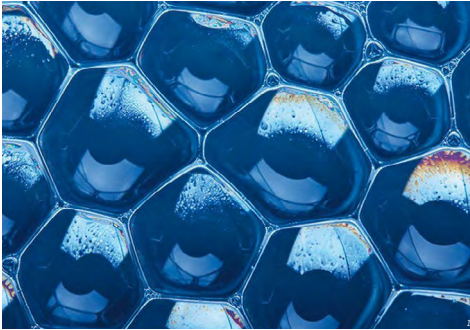
1-5: Dylan Moll - Brittle Star's use a system of lenses to manipulate light (1); Section A2 (2); Bedroom (3); The Proposed Design (4); Watercress tetradecahedralshaped plant cell (5)
 6-11: Thai Cao Nguyen - Glass Sponge Structure and the Habitation of Deep Ocean's Shrimps (6); Construct of the Inhabiting Chambers (7); The Coral-Like Structure is Developed as a Structural Base of the Inhabiting Chambers (8); Render of the habitat with context (9); Rendering without Texture of the Habitat in Relation with Context (10); Rendering Shows Group of Habitats in Comparison with the Context Scale (11);

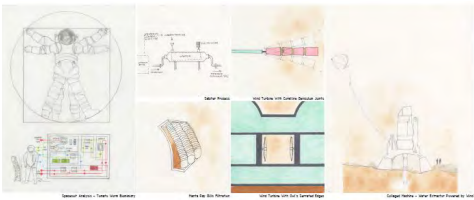


1-5: Benita Klierer - Biomimetic Possibilities of an Airborne Mars Pod (1); Removable Foundation: Anchored and Floating (2); This a Pod for Earthlings, Seeking to Establish a Bridge with Mars (3); Wall Section (4); Other Ways to Know (5) 6-10: Carter Hague - Dust Storm Condition (6); Regolith Collection (7); Programmatic Spacing (8); Energy Test (9); Exploded Axo Materiality (10)

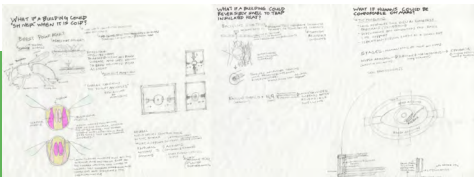


1-7: Matthew Evans - Natural Processes for Early Inspiration (1); A Martian Organism that Combines Several Evolutionary Adaptations from Species with Some of the Techniques that Nasa Expects to be Used for Building on Mars (2); Process Models Using Various Conceptual Techniques Suited for Early Martian Architecture (3); Modeling this Theoretical Construction Technique (4); Construction Phases (5); A Section Down the Center of the Habitat (6); Final Rendering (7)

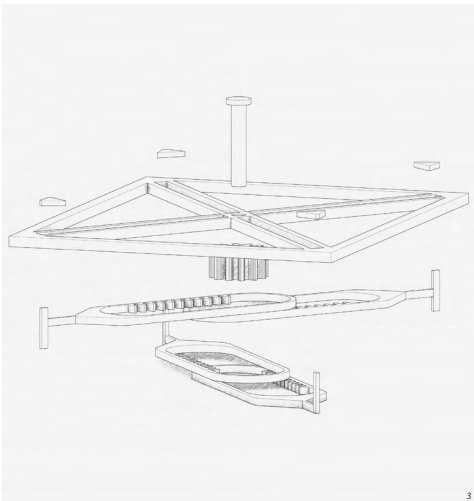




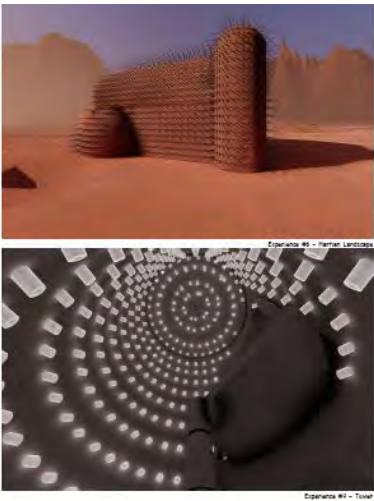
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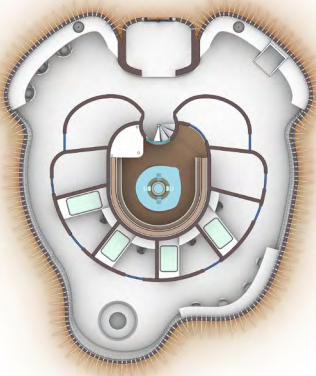
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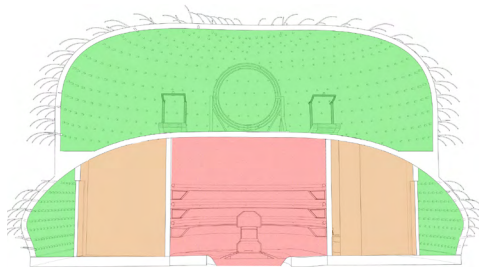
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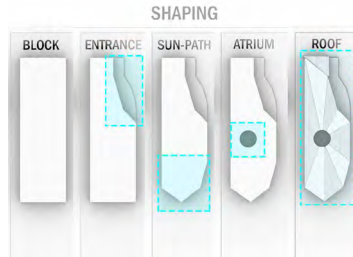


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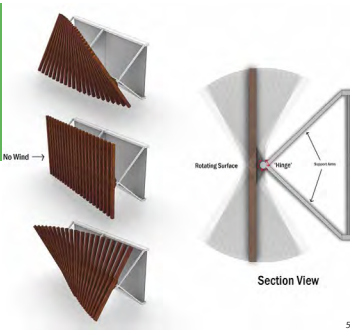
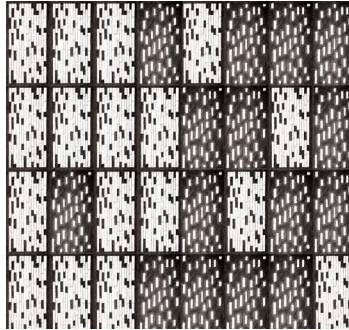


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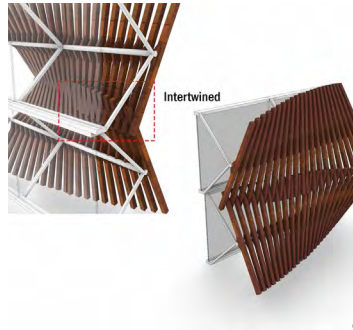
1-10: Maximilian G. Eschuk - Site Plan (1); A series of cutting and shaping based on solar paths and the cardinal directions (2); Perforated panels to generate a middle ground between exposed and not (3); From dark to light, the prairie landscape became an inspiring precedent to explore to soften the edge condition. (4); A screen system to generate a moving facade based on the wave-like movements found in the prairie landscape caused by the wind. (5-6); East Wall Section (8); The louvers would allow nature to portray its imagery as part of the building itself (9); The southern facade utilizes a kinetic system (10)



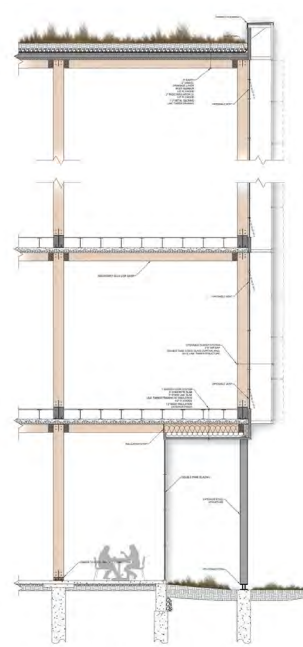
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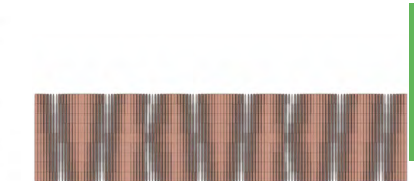
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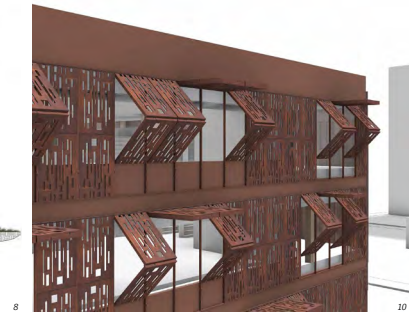
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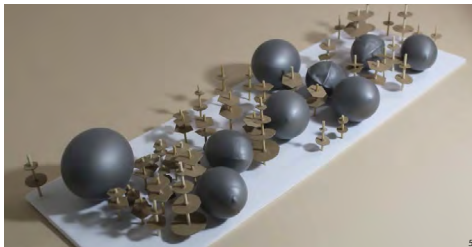
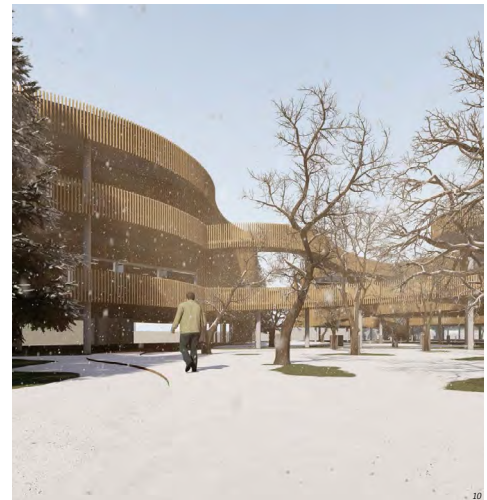
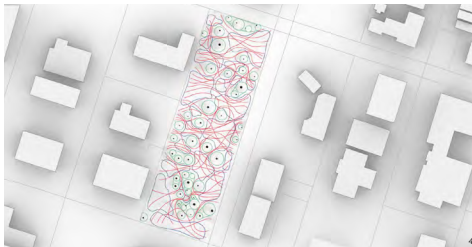
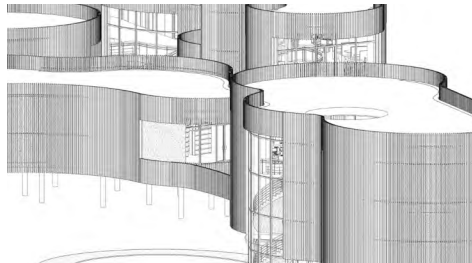
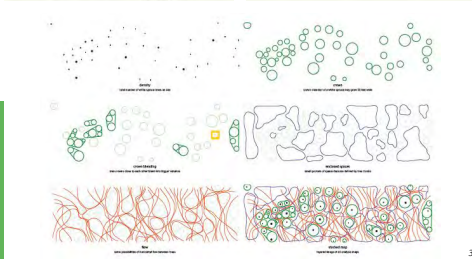
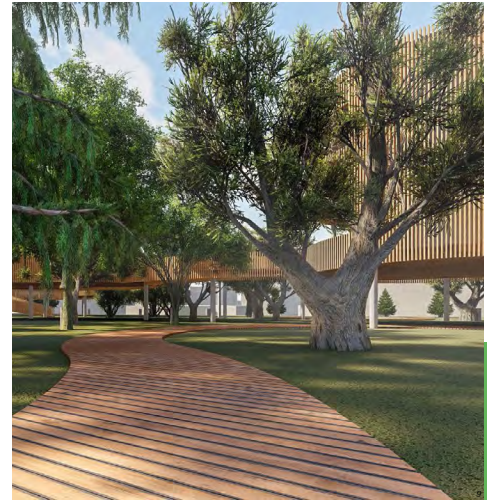
EAST WALL SECTION



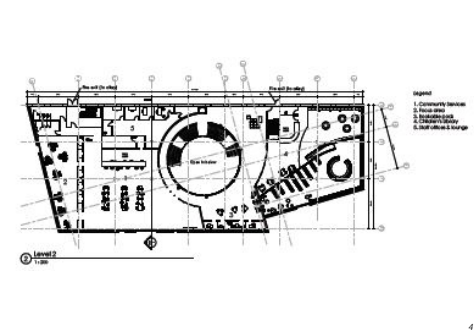
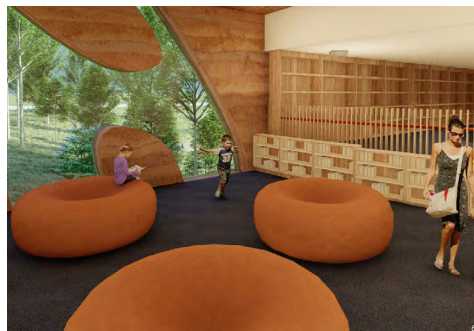
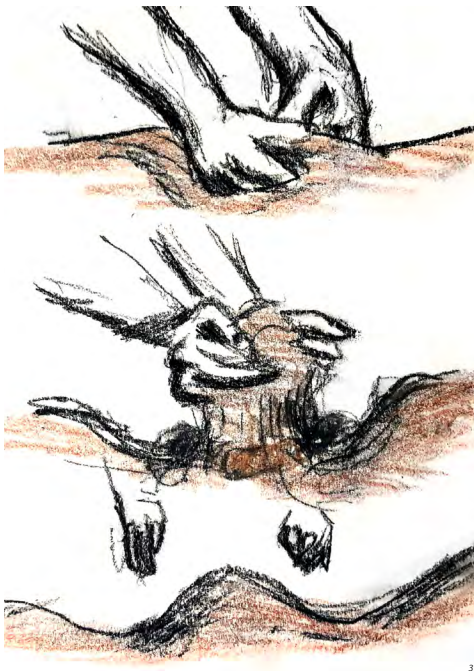
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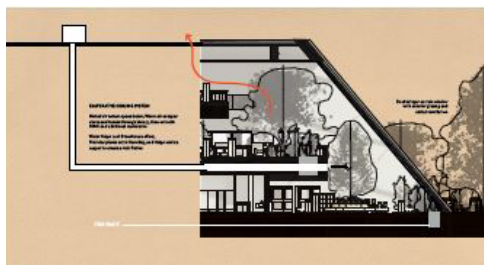
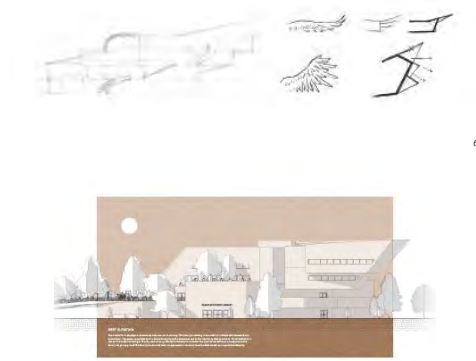
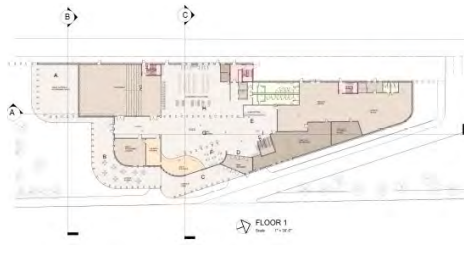
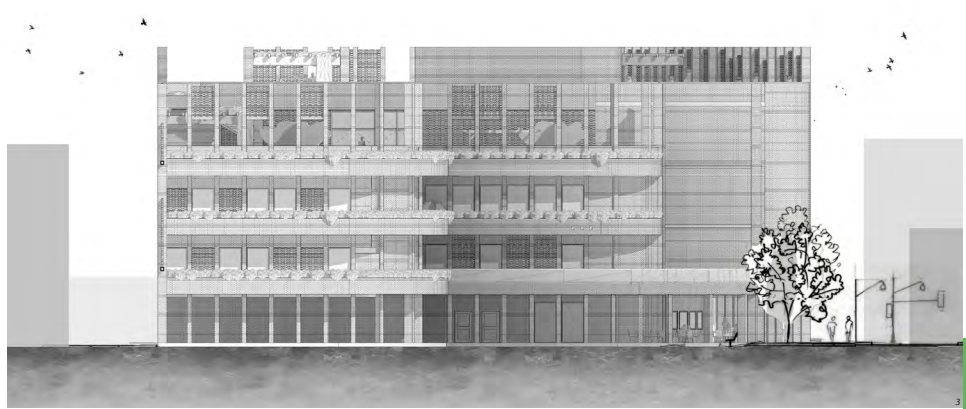
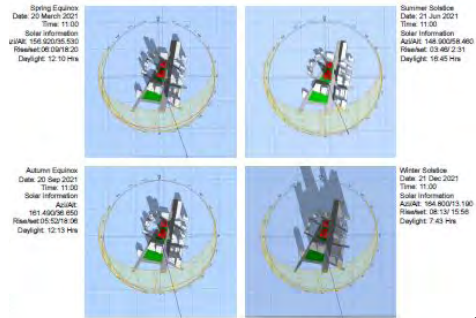
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1-7: Jami Holden - Conceptual Collage: Site (1); Indigenous Sod House Techniques (2); The Extraction of Earth would Create a Void as a Consequence (3); Level 2 Floor Plan (4); Exterior Perspective (5); Interior Perspective: Level 2 (6); Exterior Perspective: Level 5 (7)



1-5: Ifta Khairul Ahmmad Ridan - Site Sun Light Study (1); Brick Identified As The Dominating Building Material Around The Site (2); South Elevation (3); Floor 1 Plan (4); East Elevation (5)
 6-10: Cassidy Cantafio - Owl possesses the knowledge of our ancestors, and is the bridge between the physical and spiritual world (6); West Elevation (7); Two Spirit (8); Program Organization (9); Evaporative Cooling System (10)





MASTER PLAN



ENTERTAINMENT



GREEN SPACE/FARM LAND



BIRD SPACE/MEADOW

FOREST



GREEN SPACE/WATER/GARDEN

WATER



BUILT SPACE



POSSIBLE BUILDING BLOCKS

MEMORIAL



INTERVENTION



GATEWAYS (NOT REALLY A GATE)

BERLIN BABYLON STUDIO: INTERSECTIONS OF CINEMA AND ARCHITECTURE

“Berlin is a city condemned forever to becoming and never to being.”

- Karl Scheffler in Berlin: Ein Stadtchicksal

Berlin-Babylon

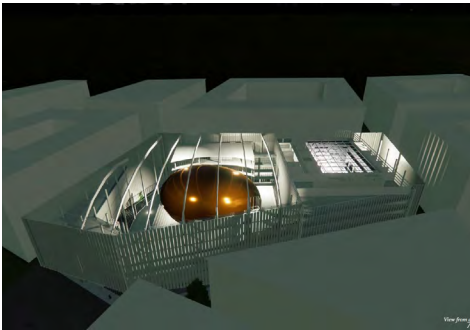
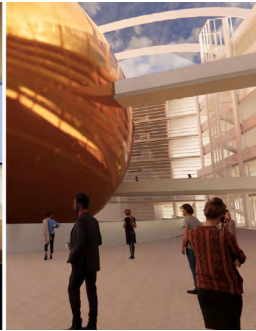
Berlin has undergone a series of great changes in the post-reunification period. In the early years just after 1989, there was a great euphoria and the belief that the city would grow from four to eight million within a couple of decades. This proved to be completely illusory and, beset with various scandals and enormous building costs for structures and infrastructure, the city (despite great architectural achievements) went into something of an economic decline.

As of 2010 the city had stabilized economically and it increasingly became the target of not individual investors, but corporate investment. These often had no stake in Berlin other than an economic one. As such, from 2010 until today, the cost of housing has increased dramatically and all attempts to place caps on increases have been met with successful court challenges. The city might still be sexy, but only for an increasingly specific economic group.

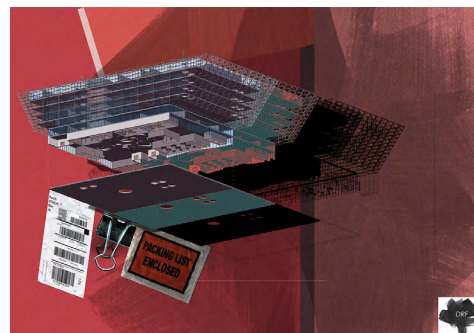
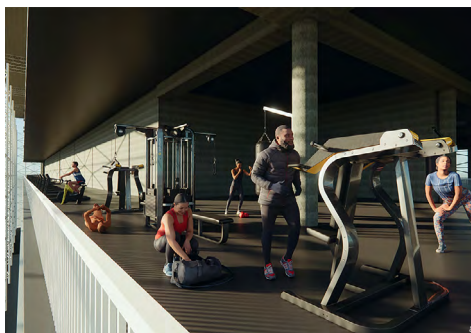
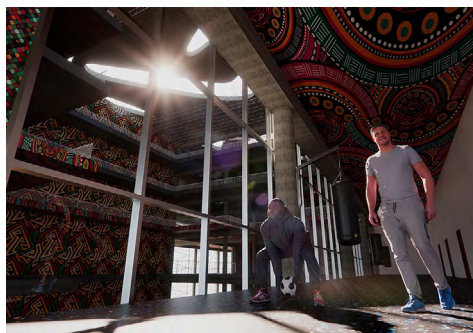
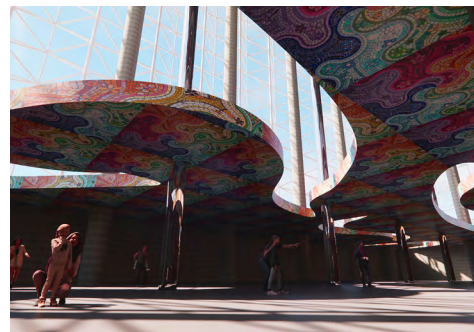
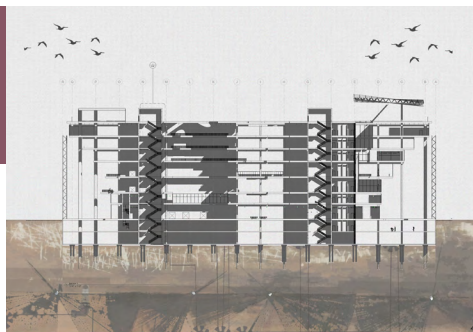
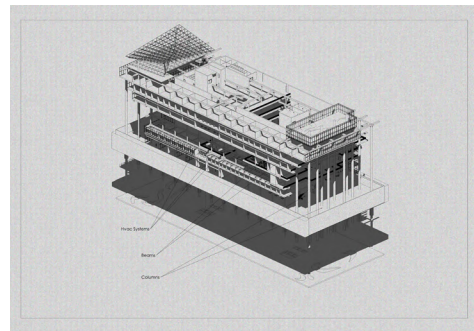
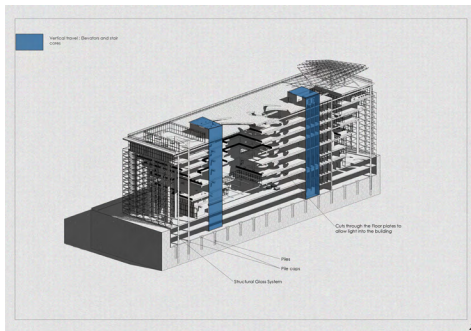
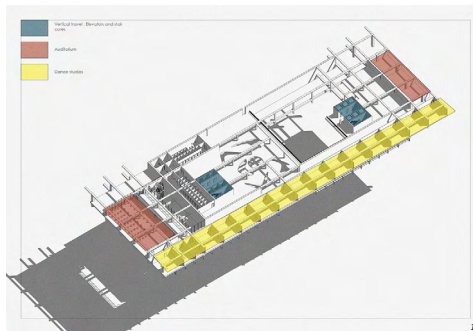
‘Poor but Sexy’ was the official marketing phrase for the city around the year 2000. ‘Poor’ meant inexpensive housing and the city became a great attraction for Europeans taking advantage of the new European Union structure to purchase second homes. These were then often rented out as party havens for weekends engaging the city’s ever-growing party scene. Sexy and no longer quite so poor marked the next phase of urban development.

In this environment, Tempelhoferfeld, which had served as an airport until the late 1990s, became a flashpoint. Developers wanted to develop it; those that had enough of global capital and its negative impact on communities wished to retain it as a park open to all. The mood is now moving towards compromise - part of the Tempelhoferfeld might be developed with the majority of the site left as a multi-use park. Working within this compromise was the overall theme of this Studio.

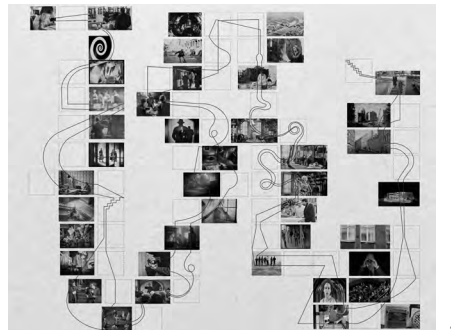
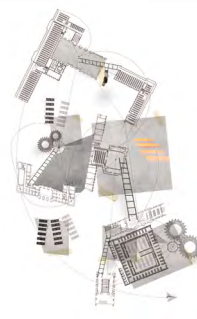
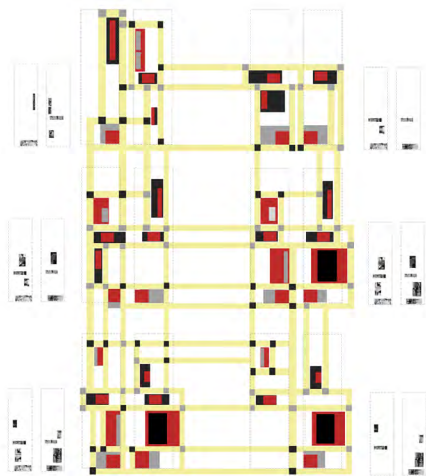
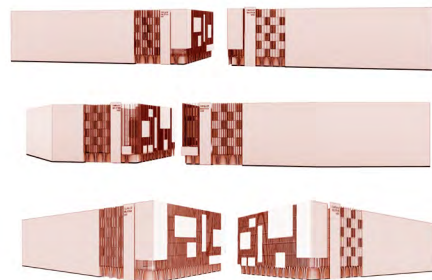
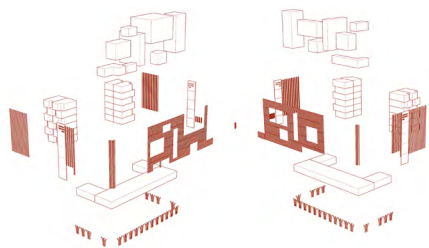
1-9: Paige Coleman - Facade: Final (1); Ovoid Auditorium (2-4); Secondary 'Tower' (5); Main Block (6); View from above (7); Perspectives (8-9)



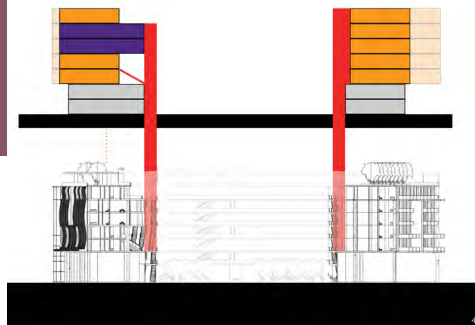
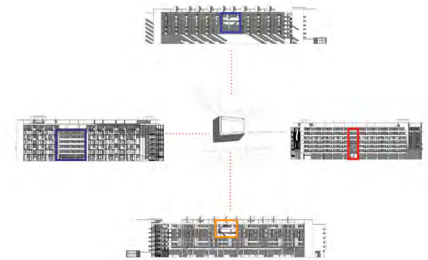
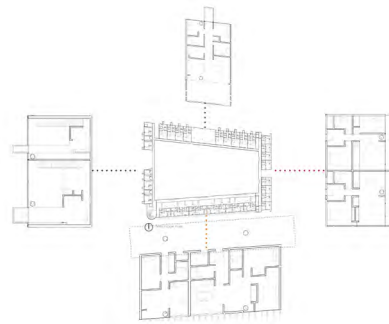
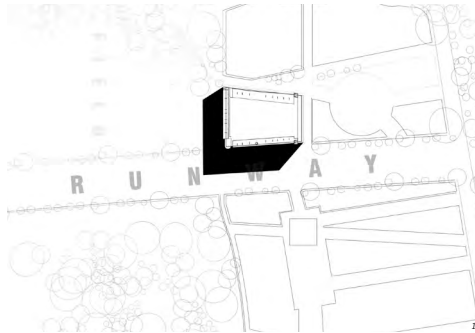
1-9: Benjamin Mijuni - Model of the seventh floor (1); Section model showing elevator cores (2); Model showing building systems (3); Building section (4); Site model (5); Basement rendering (6); 5th floor rendering (7); Gym floor 1 rendering (8); Abstract collage (9)

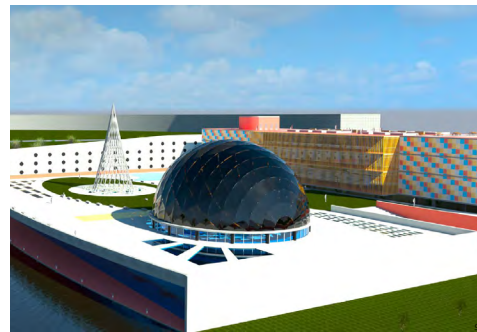
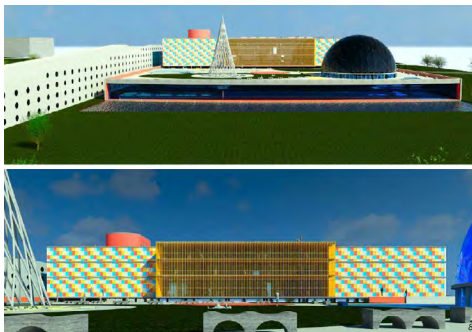
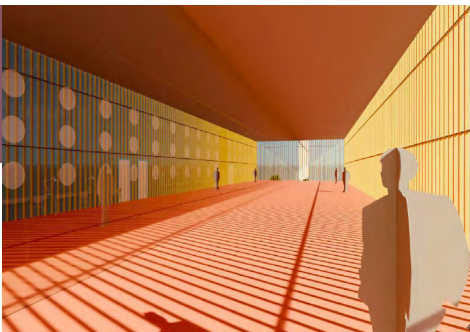
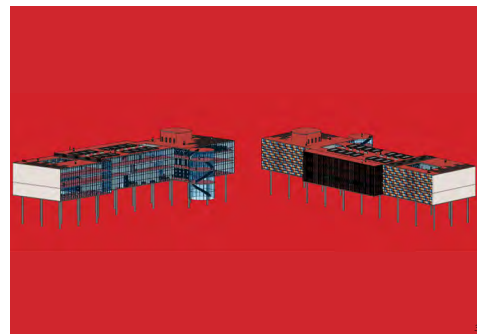


1-8: Lexi Brennan - Take 2- Design (1-2); Collages (3-4); A rediscovery of Haus Unter den Linden (Berlin State Library) using images and existing plans combined with current processes (5-6); A story board using stills from the many films watched in first semester: The plane path is mapped over top to explore architectural potentials. (7); The path of the series of sounds carried throughout the audio (8)

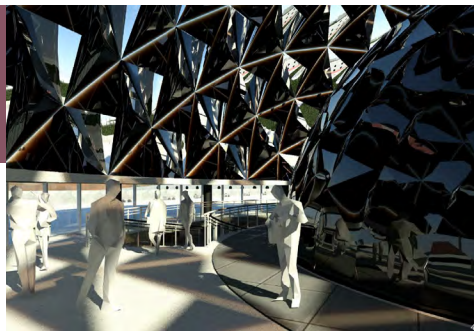
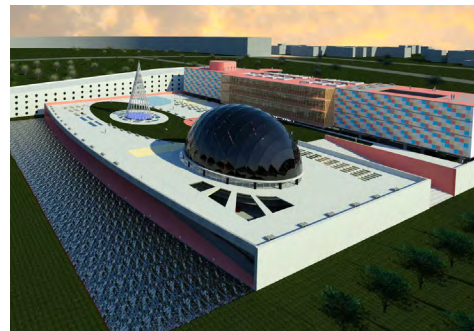


1-9: Nurielle Gregorio - Site Plan of the Tempelhof Runway Housing project (1); Different apartment units responding to different conditions (2); A variation in facades; the runway façade is of a parametric form in reminiscence of an airplane moving through the runways (3); A section diagram showing different floor plates corresponding to different apartment units (4); Render of the façade facing the parkscape field (5); A major spiral staircase overlooking the parkscape (6); An urban forest in the courtyard and its amenities (7); An apartment unit responding to bigger families, the runways and the South sun (8); The runway at night (9)

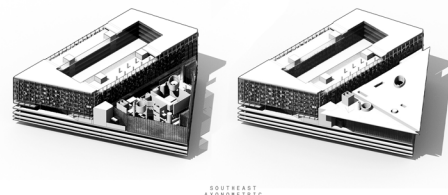
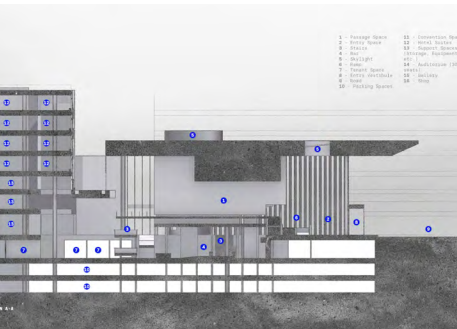
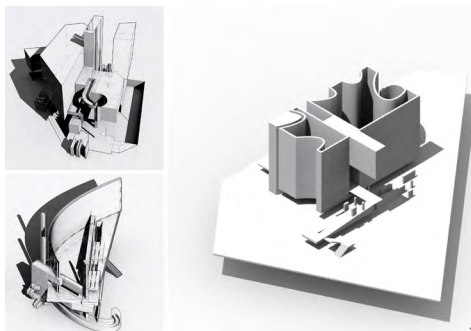
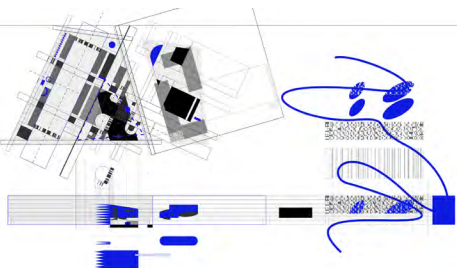




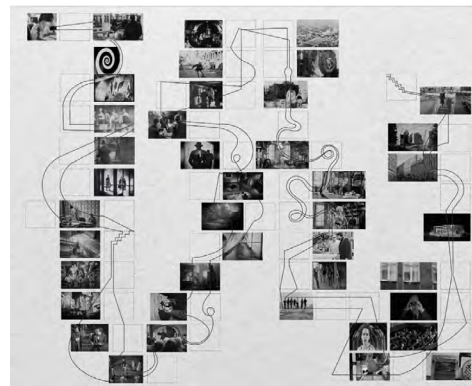
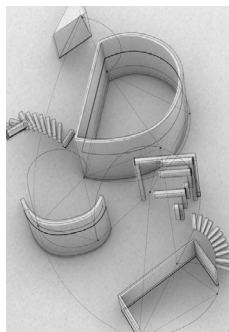
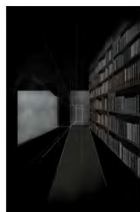
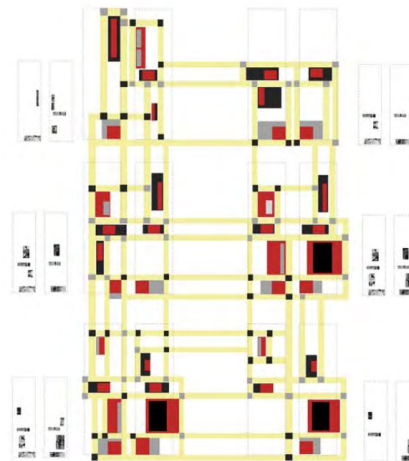
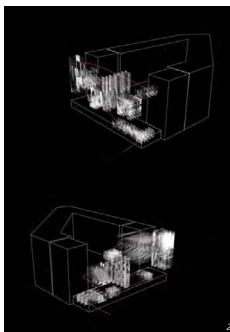
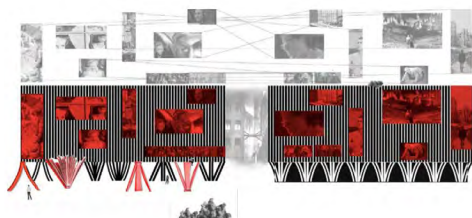




1-8: Michael Mandac - Site Plan (1); This collage is a reimagining the Faculty of Architecture in the Technical University of Berlin as a squat (2); General disposition went from productively optimistic to bleak and hopeless. This was an earlier interest, expressed as collage (3); This is a process drawing showing plan and elevation (4); - These drawings imagine the desired unique form of the distinct program as opposed to the regular geometries of the hotel and convention centre (5); This section cuts through all main programs of the building (6); This section cuts through the auditorium and food hall spaces (7); Southeast Axonometric (8);



1-9: Giordana Nocita - The facades of the sister libraries would feature cutouts which would frame different 'scenes' taking place within the building (1); Conceptual drawings and models were made to illustrate how these 'scenes' or spaces fit into the overall scheme of the library with its other elements, and how one might circulate through these spaces (2); a story for tempelhof library east (3&7); An overall diagram of the major spaces and potential circulation paths (4); a story for tempelhof library west (5-6&9); An exploration of the Library through sound (8)




1-8: Rui Tang - Site Analysis (1); Building Development (2); Public programs (3); Design diagram (4); Case study: GSW headquarters (5); Building Facade (6); Exploded axonometric (7); Context Axonometric (8)
 9-14: Brooke Nero - Site in context, adjacent to playing fields and lying on the exterior ring of urban development (9); Preliminary process work (10); Final Rendering: Entrance (11); Final Rendering: West Facade (12); Final Rendering: Splash Pad (13); Final Rendering: East Facade (14)



12

13

An aerial photograph showing a vast, blue-tinged glacier flowing through a rugged, snow-covered mountain range. The glacier's surface is marked by numerous crevasses and longitudinal stripes of sediment. The surrounding peaks are partially covered in white snow, contrasting with the dark, rocky outcrops and the deep blue of the ice.

“ . . . If you cannot understand our scientific findings and present them in an emotional, psychological, poetic, or mythological context, then nobody will understand the issue and the world will end.”

- Andri Snær Magnason

THE SEVEN SISTERS: TRANSNATIONAL ICE IN THE 21ST CENTURY

Imagine sweeping high over the earth – like the Archangel Gabriel in CODEX 1962 – over all the tumultuous world, the endangered places, ecologies at a tipping point, communities at risk, Antarctica breaking apart, the Annapurna Himal feeding the Ganges . . . looking for good ice. Above the Arctic lightning bolts are flashing around you, a phenomenon never seen before as you fall spinning and spiraling down over Ellsmere Island at 83o N -73o W to the deep fractures of the Ward Hunt Ice Shelf.

The trail of living ice and time has only begun. From Vatnajökull in Iceland (64o N -17o W), across Greenland, to the Rockies Mountains and then the Andes and Antarctica, the studio tested both sentient and scientific models of understanding, exploring climate change through the lenses of time and water.

While remote, glaciers are not tangential to our well-being – the ice caps, glaciers and ice packs of the world account for approximately 10% of its area. In this architecture studio seven (7) glaciers were offered as

‘Many Icelanders expressed for and of ‘their’ local glaciers. Implied they (read: people and ice) are in this together – mutually caring for each other. Soffia did not say she grew up in a world that had glaciers, rather, she said, “I grew up with the glacier”. Like one might say, I grew up with my sister. With. Together. Soffia implied development and growth together. They grew together, her and the glacier.’ [2].. 3 (. . . a lifetime.)

- M. Jackson

sentient beings and scientific interfaces that will help us understand their origins and the short and long-term impact of their decline on the fate of the world. The studio encouraged the adoption of a glacier from amongst the recommended seven by each student. Our inquiry involved collaboration and inspiration from the fields of science and the arts.

A physical and narrative transect up and through the glaciers revealed their origins, material makeup, upstream conditions and downstream impact. Understanding their eminent life-fullness including hourly, daily and annual changes of growth, movement and collapse – the studio examined the chaotic and unpredictable points of breakdown and disintegration, the sudden release from restraint, and the precipitous impact and non-recoverable transformation driven by rapid climate change. Several examples of ice-based Research Stations were introduced as guidance to build competence in complex programming and to draw the cultural research and scientific findings into architectural expression.

Fundamental to the architectural research are ideas

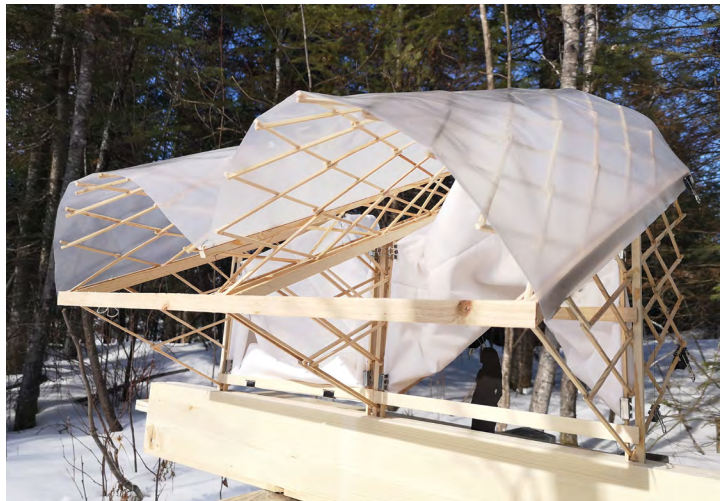
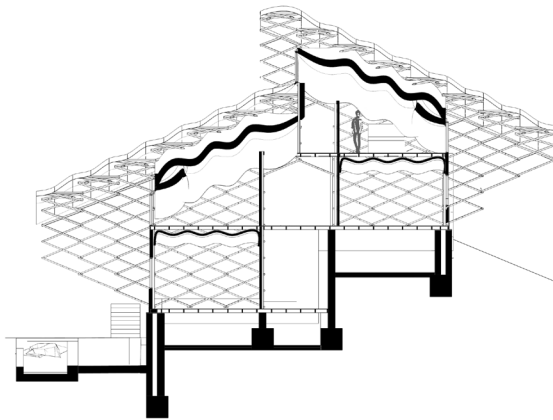
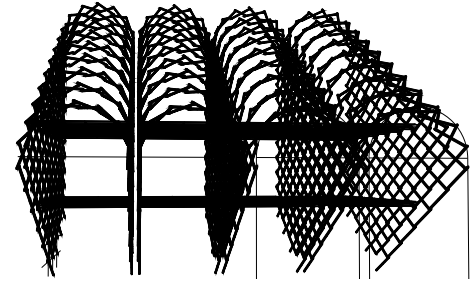
of environmental interaction in extreme conditions, structural and assembly strategies, energy generation and distribution, new transportation technologies and no-trace zero carbon living related to remote life in a paradoxically pristine and unsettled environment. Our second term was devoted to a significant intentional programmatic and architectural expansion of the first term proposal inspired by the Australian Network for Art and Technology (ANAT) and their long-standing Australian Antarctic Arts Fellowship. This studio promoted the imagination and supported the interlacing of art and science in a collaborative and interdisciplinary manner. It speaks to the need for complex and multi-vectorial reflection and intercession in order to fully comprehend the nature of these environments and to plan against all odds for their recovery.

1 Horn, Roni, Acknowledgments to Vatnasafn / Library of Water: Stykkishólmur, Artangel / Steidl (2007)

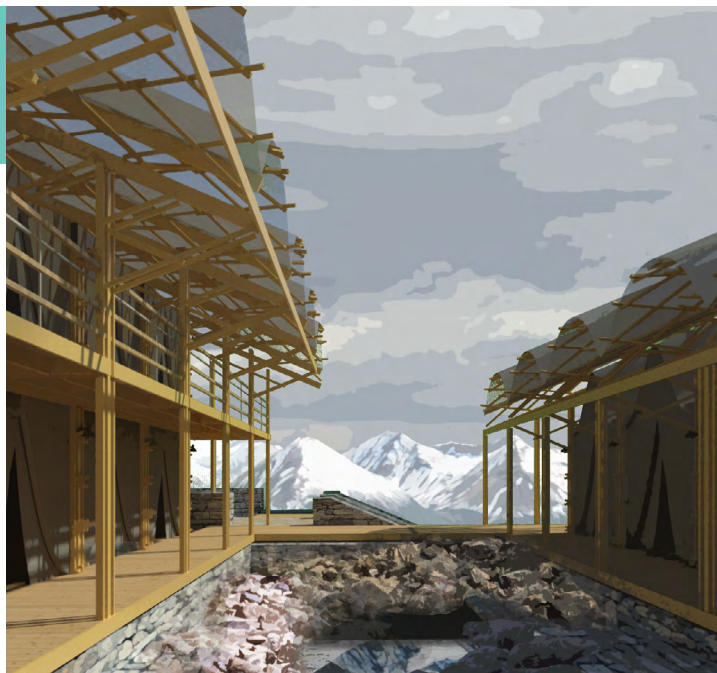
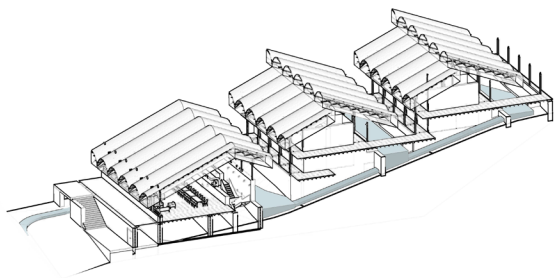
2 Magnusson, Andri Snær, On Time and Water, (Translated by Lytton Smith), Pub. Bby Open Letter, March 23, 2021, ISBN-10 194883023X, ISBN-13 978-1948830232

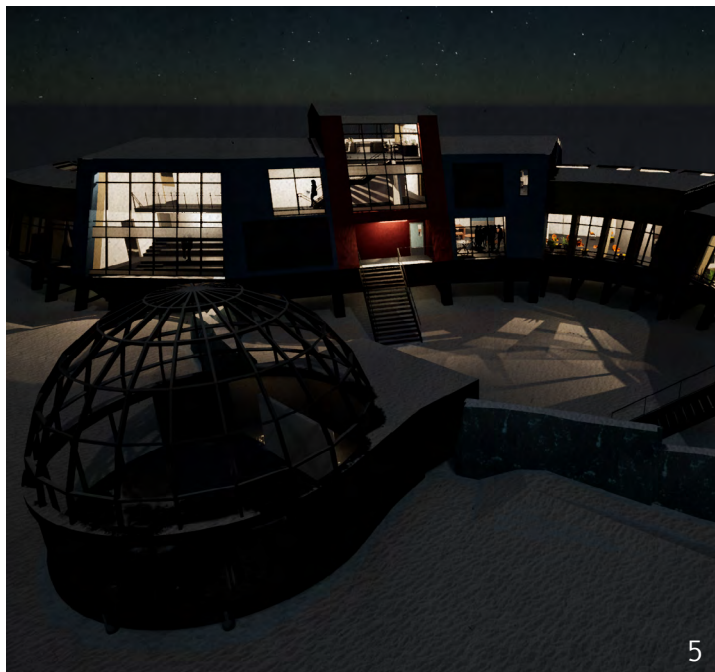
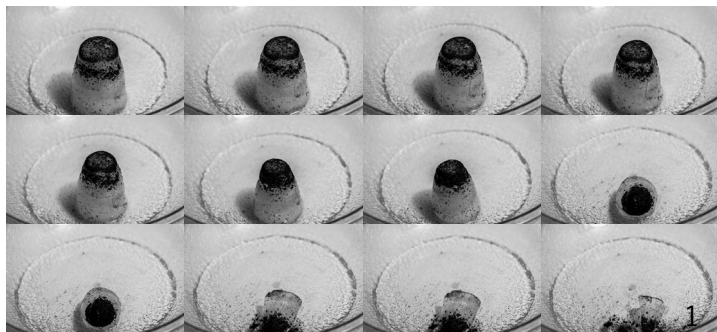
3 Jackson, M, The Secret Lives of Glaciers, Pub. by Green Writers Press, 2019, p.179.

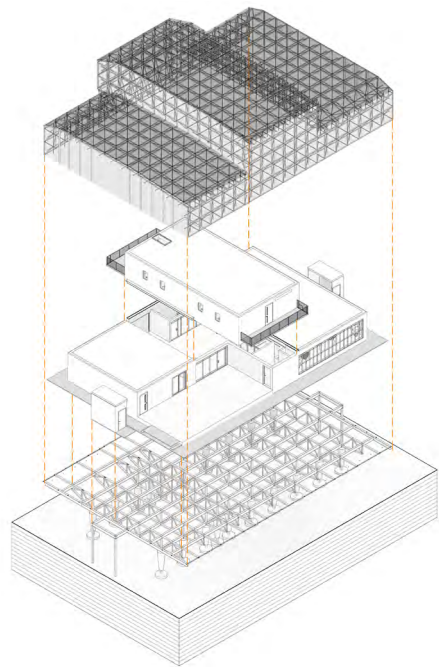
1-5: Paul Hanbury - Path from into the South Patagonia Icefield (1); Tehuelche Aik Shelter (photo by Arturo Boote, c. 1895. Gallica) (2); Lattice Structure form experimentation (3); Section exploring building envelope (4); 1:12 physical structure and textile study (5).



1-5: Paul Hanbury - Section: rain and meltwater management (1); Expedition hall interior (2); Rock pool between residences (3); View onto Glaciar Perito Moreno (4)







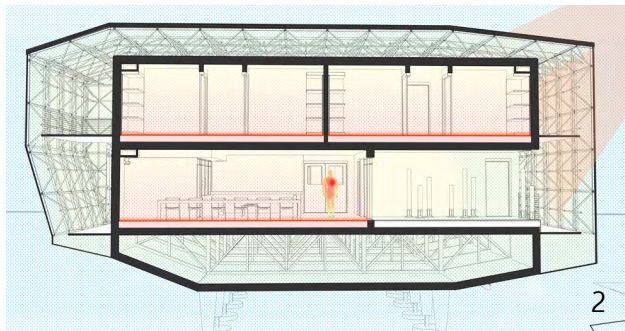
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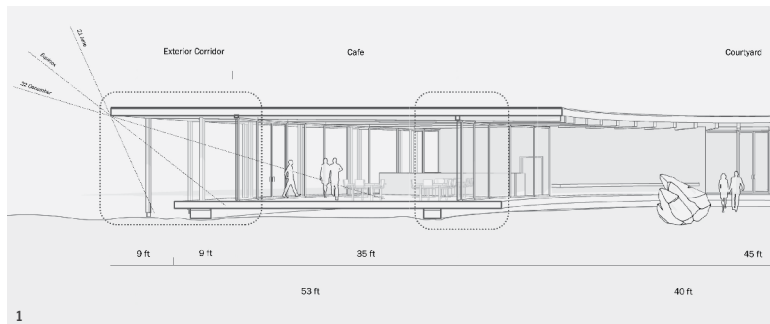


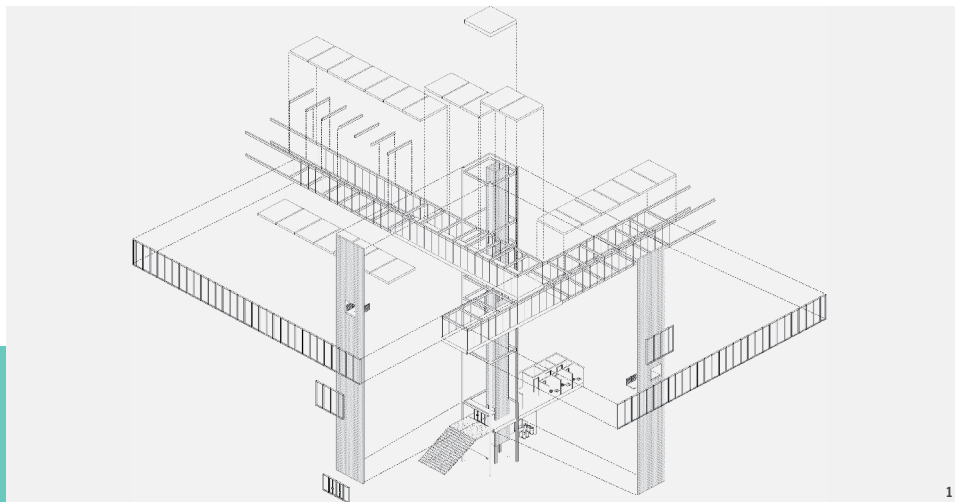
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1-4: Michele Palmieri - Artist Centre Section (1); Courtyard (2); Colonnade (3); Artist Centre Exterior Facade (4)



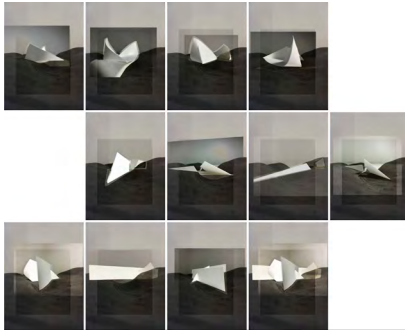


1-3: Coral Ross - View of spa deck and entrance to hot pools (1); View from private apartment deck leading into hot pool (2); Total complex including hot pools, apartment wing, sky bridge, spa, and research center(3)



1-4: Coral Ross - Entrance into atrium space for research station(1); View from top floor restaurant out to hot pools (2); Section of building stepping down with landscape to hot pools (3); Exterior of apartment wing with glaciers behind (4)





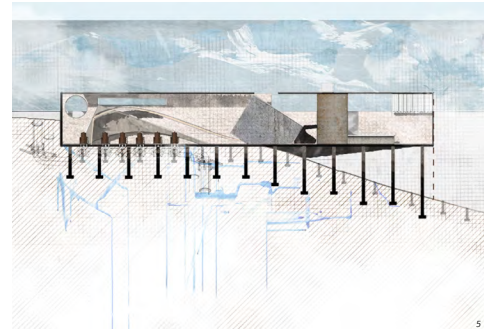
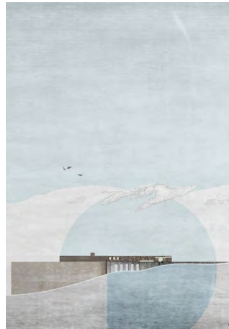
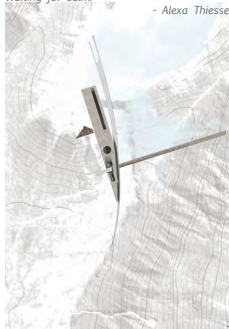
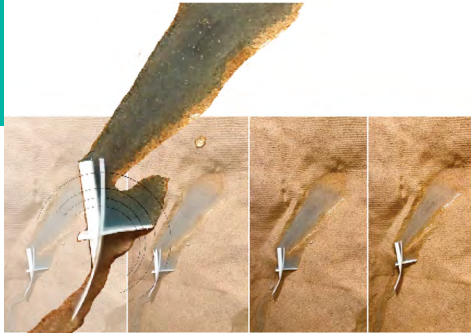
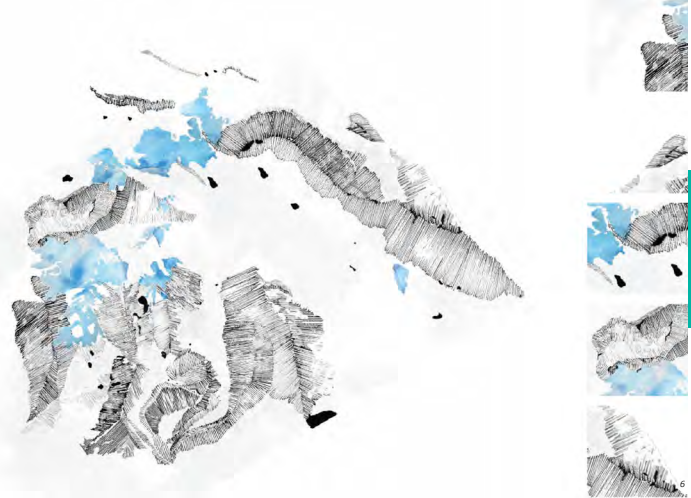
The glacial floods have destroyed cities and ruins of the indigenous people, but more seriously, the natural disaster has killed approximately twenty thousand people. Because of this, it has caused a strained relationship between people and the mountains. Due to global warming, Lake Palcacocha has turned into a highly watched and dangerous site. Glaciers are melting, and daily avalanches have caused the volume of the lake to swell. The battle to keep the water at a safe height has been a decade-long fight. This glacial lake could flood at any moment, killing more people than any other flood in South America. Victor Morales wakes up every morning, makes his cup of coffee, grabs his chair and rickety table, binoculars, and begins his day of watching the landscape surrounding Lake Palcacocha. He is a watchman. He has the crucial job of observing the mountains to see if he spots any major avalanches or changes in the landscape, making Lake Palcacocha flood and destroy the cities below. Specifically, the city of Huaraz. He sits, listens, and watches, ready to radio to Huaraz that it is time to evacuate. Victor Morales is the warning system, and he sits a stone's throw away from where the killer wave broke the natural morales decades ago and killed hundreds of people. Victor Morales is a machine, a hero who sacrifices his life every day for others' safety.

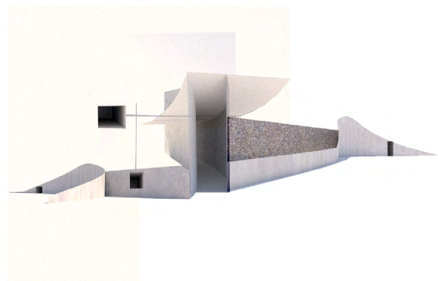
The Hydroelectric dam design was inspired by sculptures, beginning to view floors and walls as art pieces and creating architectural moments throughout the structure. I was thinking about materiality and human interaction, creating spaces large enough for the dam and small enough for people to interact with. Each sculpture aims to create a conversation and opinion of the people who would see it. Pushing the boundary of what we consider a floor plan.

While the building's primary purpose is to create hydroelectricity and manage the glacial lake, it also explores a new architectural typology. Large open cutouts invite light and mountains into space, reminding people where they are situated and what is happening around them. The dam itself aims to house Victor Morales, supply living quarters for 2,000 staff, generate electricity for the cities below and deal with the global warming issue at Lake Palcacocha.

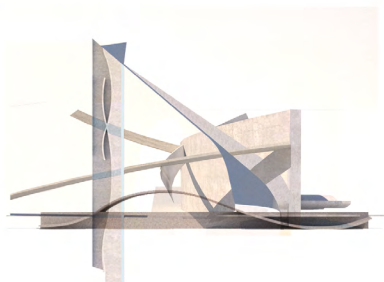
Watching, Listening, Day after day, Watching, Changes, Nothing's too small, Watching, Skyward, Ready to act, Watching, Breathing, Waiting for calm.

- Alexa Thiessen

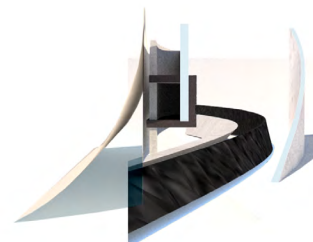




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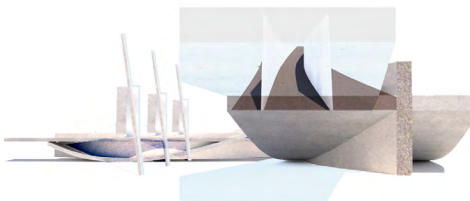
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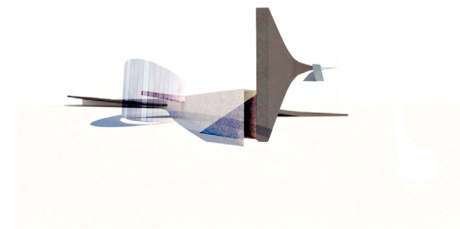
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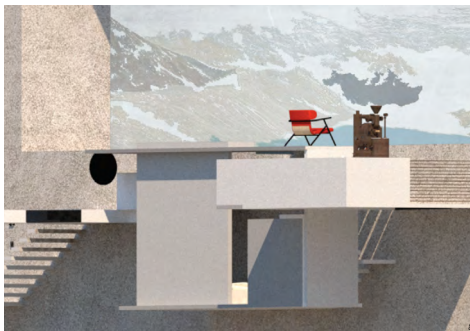
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8



9

SCENE 3 - LOOKING OUT → EYE @ WINDOW

①



→ RIVER
LOOKING OUT → IN ROOM
→ NIGHT

②



→ NIGHT
BALCONY

③



→ THE ANGLE OF VIEW? 1

- NOOD BECOMING FRESH?
- FRESH BECOMING NOOD?

SCENE 4 → DREAM IN A DREAM
WITNESS → DREAM LOOKED AT

①



→ SHOW MYSELF A BIT
WITHIN & OUT

②



③



→ MAYBE
WINDOW

→ ESCAPE



SCENE 5 → REALITY

①



→ MAYBE
WITNESS

②



→ MAYBE
WITNESS

③



→ MAYBE
WITNESS

ACT 2 ANGLE OF VIEW

→ MAYBE
WITNESS

→ MAYBE
WITNESS

→ MAYBE
WITNESS

→ MAYBE
WITNESS

→ MAYBE
WITNESS

→ MAYBE
WITNESS

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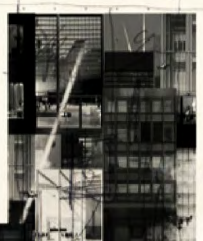
→ MAYBE
WITNESS

I see infinity through every window.

- Charles Baudelaire



→ MAYBE
WITNESS



→ SELF FIN

I cannot do a building without building a new repertoire of characters, of stories, of language, and it's all parallel. It's not just building... it's building worlds. It's building worlds!

— John Hejduk, “Builder of Worlds” (1992)

Architecture is a poetics of living.

— Michael Sorkin “Domestic Apparatus” (1991)

A short story is what you see when you look out the window.

— Mavis Gallant “A Window Scene” (1985)

The city can only become the crucible of dreams if it offers a stimulating home to every dreamer.

— Michael Sorkin What goes Up (2018).



Sara Mahabadi,
Urban World Collage

STUDIO SCENARIO

Studio Scenario explored narrative arts and acts of dwelling in a struggling but hopeful city.

Working creatively and collaboratively through a series of nested scales, modes and sites of architectural imagination, students devised exquisite Window Worlds, Room Worlds and Urban Worlds for Winnipeg's storied Exchange District.

Students ultimately crafted comprehensive Building Worlds – mixed use residential and public amenities – enabling diverse dwellers to more fully perceive and engage their social world as a living collage. Studio Scenario generated transformative stories and places, empowering people to change the narrative of world crises into creative scenarios of collective enjoyment, resilience and propinquity.

Window Worlds

Inspired by creative research into thresholds of ordinary settings and extraordinary art, Studio Scenario began by building multi-faceted Window Worlds. Students interpretively incorporated windows from personal worlds of experience, memory and imagination, together with creative responses to windows conjured in exemplary paintings, fiction and poetry. Each Window World

developed via a loosely ordered cosmos of material, spatial and phenomenal studies, including architectural and tectonic precedent research, to become a portable portal : an operable and inhabitable apparatus framing micro and macro world-making events.

Room Worlds

Synthesizing and expanding this developing-enveloping work, students launched architectural studies of a specific room – detailed inhabitable enclosures for emerging stories and characters. Room Worlds developed in tandem with technical-poetic studies of window components from personal worlds of experience, as well as interpretive responses to window details of exemplary architecture projects. Iterative and collaborative “exquisite collage” experiments fueled this phase of creative work.

Urban Worlds : Society of Rooms

Elaborating and proliferating Window Worlds and Room Worlds, students then developed a Society of Rooms for arts and acts of collective ‘Urban World’ dwelling, situated within a network of infill sites in Winnipeg's downtown Exchange District. These Urban Worlds



Ashley Polet, Window World Study

became places of social aggregation and propinquity – fostering community, conviviality and exchange, while considering present urban and ecological challenges.

Throughout Studio Scenario, students exchanged, interpreted and invented scenarios that were simultaneously architectural and urban; material and allegorical; human and environmental; social and situational. Studio Scenario sought to empower comingling of the ordinary and extraordinary, enabling cohabitation of all living beings, however burdened by cares and concerns, to have the chance – and choice – to dwell poetically, even in times of crises.

Studio Scenario encouraged radical experimentation in diverse media, across multiple scales and modes of design thinking, and involved numerous local and international guest critics and technical experts via online meetings and virtual group site visits. With humour, diligence and collective imagination we changed the pandemic narrative into scenarios of renewed propinquity and hope.

Check out Studio Scenario on Instagram
[@studio_scenario](https://www.instagram.com/studio_scenario)

Ralph Gutierrez: *Window Worlds*, "We See You," Animated Collages interpreting personal memories and Yevgeny Zamyatin's science fiction novel "We" (1921); *Room World*, Nebelmeer: A Grotto Beneath a Sea of Fog, and temple of scenic life; Collage studies for *Urban Worlds*; *The Beacon* : a temple of dramatic life dedicated to the mythical blazing spirit of the Exchange District, and evanescent memories and dreams of transient living.



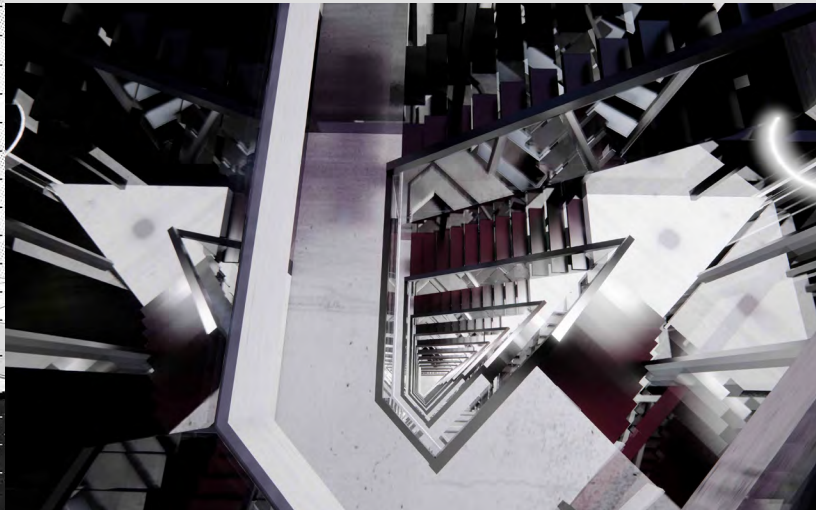
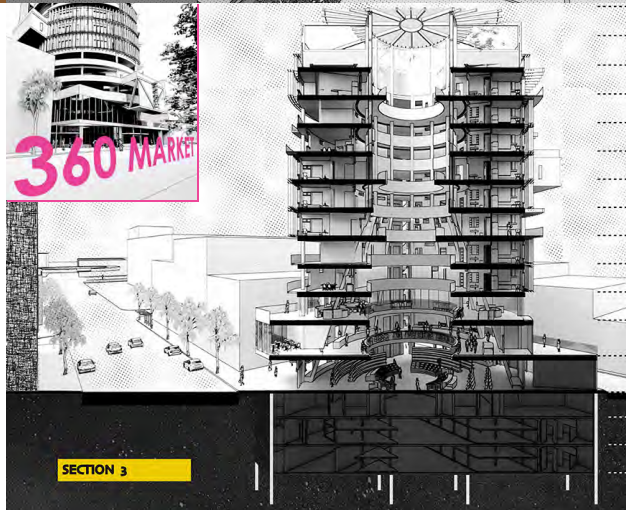
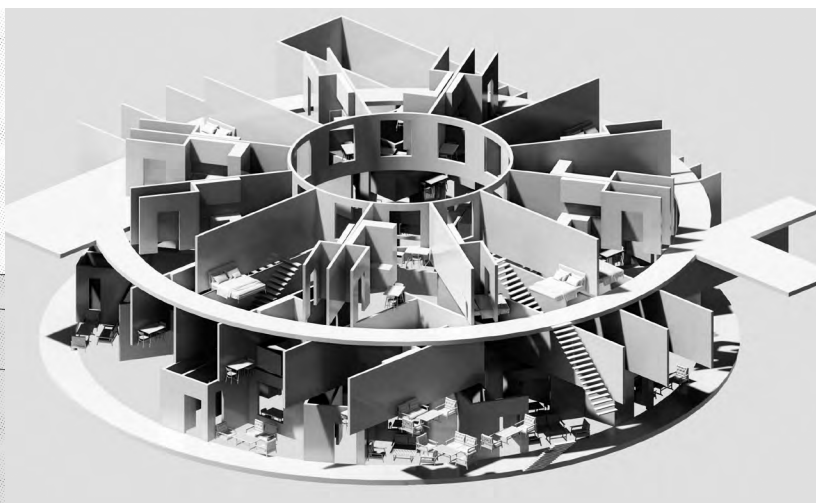
An urban infill 60-room hotel, The Beacon brings together the dynamic and tourist-oriented scenarios relevant to the Winnipeg's Exchange District. Visitors will experience mythic potentialities of the city. It caters to thespian travellers and enthusiasts. Amenities celebrating the acts and arts of bathing are embodied in the hotel allowing the theatre community to have a place of repose amidst the drama of the city.



The comic 'The Paperman' by John Rocco is a 24-panel story. The first panel shows a man in a yellow-tinted scene, looking at a woman's drawing of a man. The second panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The third panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The fourth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The fifth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The sixth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The seventh panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The eighth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The ninth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The tenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The eleventh panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twelfth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The thirteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The fourteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The fifteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The sixteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The seventeenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The eighteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The nineteenth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twentieth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twenty-first panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twenty-second panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twenty-third panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The twenty-fourth panel shows the man looking at the drawing with a speech bubble saying 'I've been thinking...'. The comic is a mix of black and white and yellow-tinted panels.



360 Market is also a memory room – a place to recall and create the best memories. The design originated with storied recollections of childhood dwellings in the dense urban fabric of China, with story-board narrations of pandemic design studio life, and experiments with spinning slide carousels as preservers and projectors of multivalent memory and social imagination.



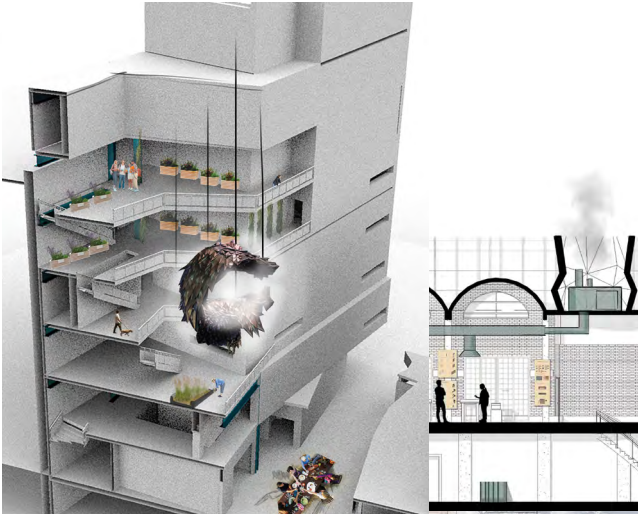
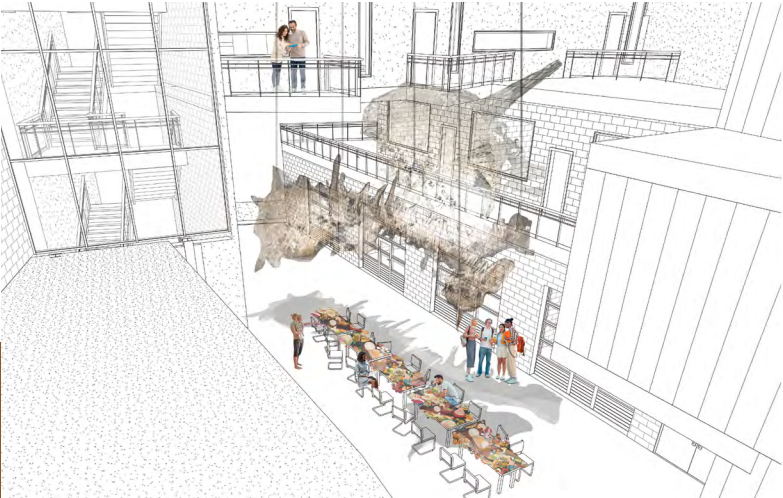
Cleo Syverson: School City reimagines the city as a classroom and the school as a city. This K-6 elementary school creates a community hub, where children feel welcome and excited to learn about the city where they live. The heritage buildings, land, streets, alleys and community all become learning tools. The school is also an asset for the community for various public events and festivals on weekends and evenings.



Alix Lacerna: Mabuhay (Filipino: 'to live') is a place to breathe. The project explores an architecture of care and mindfulness. It is a study on the relationship and effects between good health, architecture, and building materials. Mabuhay prioritizes Indigenous values to honour Winnipeg's heritage and inform alternative approaches to climate change. The design proposes 175 units of pet-friendly, permanent supportive housing for Winnipeg's homeless population. Mabuhay encourages eco-ethical awareness of healthy lifestyles, and social and environmental well-being.



Sean Vandekerkhov: The Stacks provides collaborative workshops and live-work studios where Earth, Metal and Street can be transformed by the collective hands of the Exchange. The infill building provides 23 residential units for working artists, 3 collaborative ground floor studios, and a 'Hot Shop' with ceramic kilns and other firing equipment, all opening onto a central courtyard, encouraging collaboration and public engagement.



HOW TO: Stack Panels

1. Select Designated Panel Type and Color from Model
B01 B02
B03 B04
R01 + R02
2. Place Designated Panel into Unit Center
to Achieve Desired Wall and Ceiling
3. Lock in Place Using Panel Locks (Locks are located on the bottom edge of the panel. Push the lock into the bottom of the panel to lock it in place.)
4. Lock in Place Using Panel Locks (Locks are located on the bottom edge of the panel. Push the lock into the bottom of the panel to lock it in place.)
5. Check if Completed Panel is Ready to Use

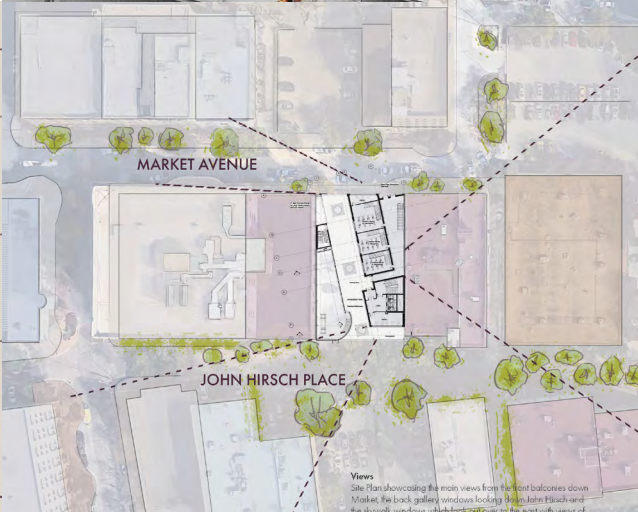
The Stacks: Operable Panels

Door Panel, 8'x12'

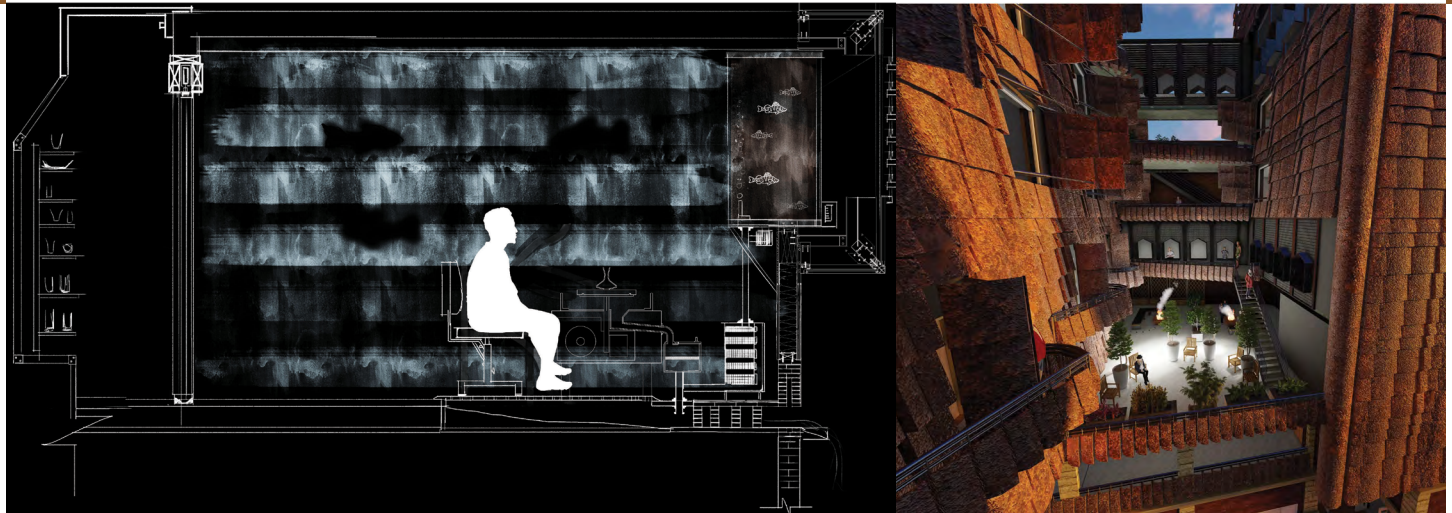
Balcony Opening in Ceiling, 8'x12'

Balcony Opening in Wall, 8'x12'

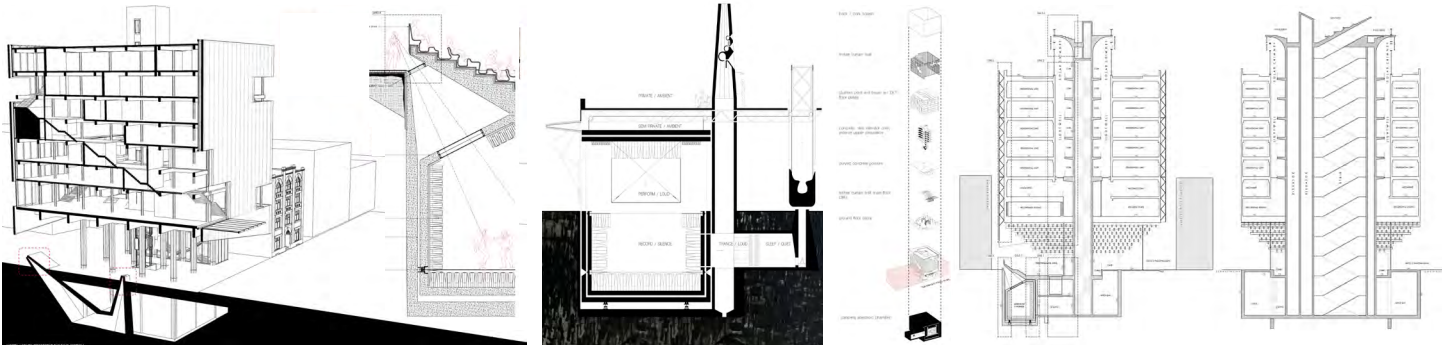
Diagram showing the assembly of the Stacks panels. It includes a door panel, a balcony opening in ceiling, and a balcony opening in wall. The panels are shown in various configurations, demonstrating their flexibility and how they can be used to create different spaces.



The Stacks connects to the history of the Exchange District as a bustling neighborhood focused on production and transportation of goods and people. The design helps the crafts flourish again with accessible workshops and large public exhibition spaces (indoors and outside), while enabling the community to participate in transforming the building itself through interactive and seasonally adaptable façade elements.

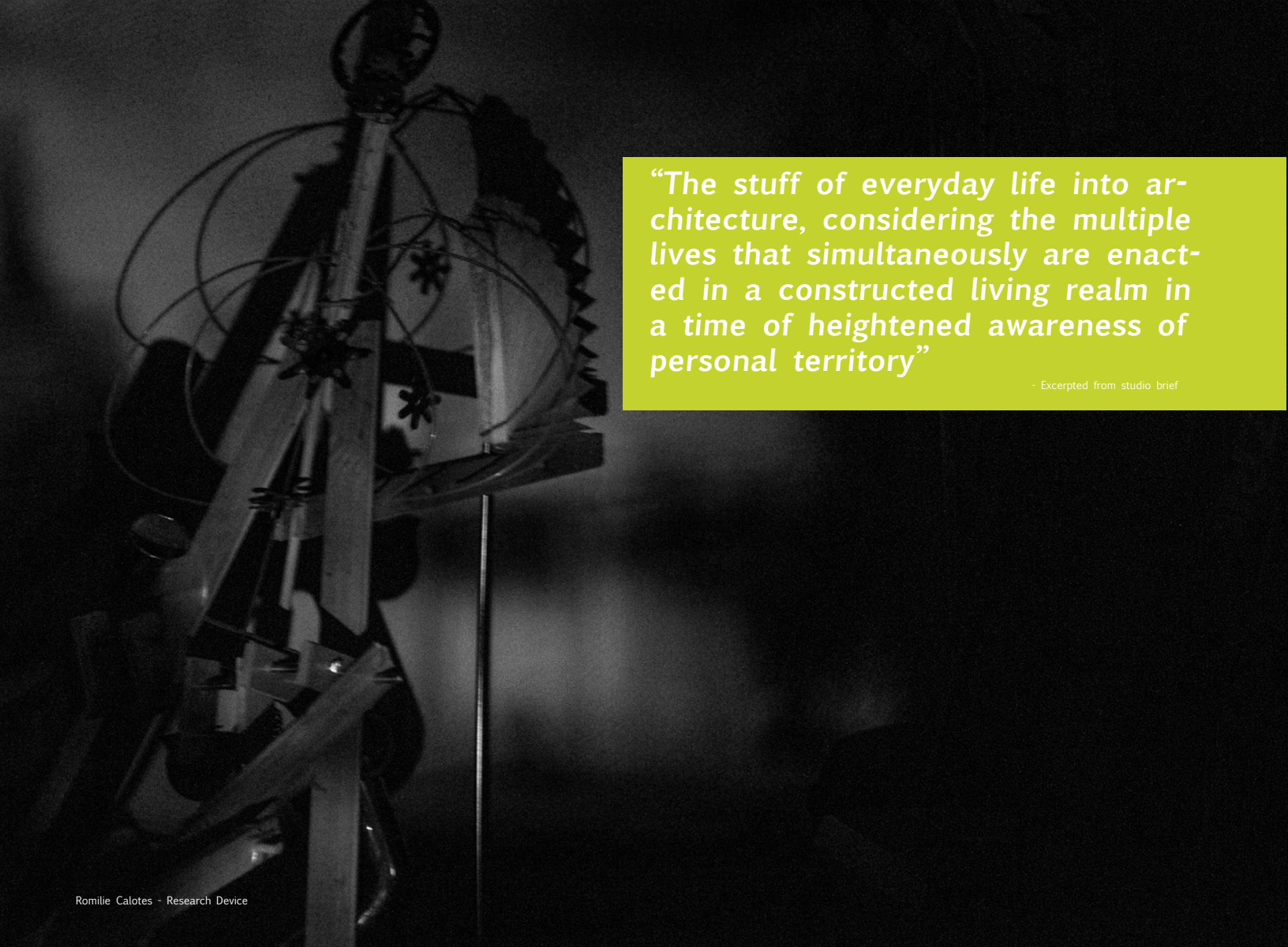


Brandon Bunkowsky: Muscle Shoals is a world class musical/sound facility in the heart of the Exchange District, enticing auditory talent from across the globe to live, work, perform and invigorate daily life in Winnipeg. This infill project enriches the urban fabric and adds verve and vibes to wonderful mix and serendipity of pedestrian friendly streets.



At Muscle Shoals, famous pop stars, fringe metal bands, and budding podcasters jostle and jive with downtown executives, locals and tourists. The building includes 48 residential units, multiple diverse performance, recording and jam spaces, and a public plaza connecting Bannatyne Ave. and John Hirsh Place. The perforated screen resonates mystery and rhythm.





“The stuff of everyday life into architecture, considering the multiple lives that simultaneously are enacted in a constructed living realm in a time of heightened awareness of personal territory”

- Excerpted from studio brief

STUDIO PROXIMITY

ASSEMBLING RELATIONS

The studio will focus 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]. I am interested in both the specific conditions and the Interfaces. We are not alone in the world. Architecture needs to be cognizant of the multiple lives that simultaneously take place within it.

Studio PROXIMITIES will focus on constructing a complex living realm that is not about the forest and its paths. [Heideggerian] Rather about building and locating; about Assemblages and constructions [Deleuzian] [not ideal, pure or autonomous; rather the opposite: it will embrace the dirty realism of the world that we live in including pandemics, 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

STRATEGIC CONTRADICTIONS IN STRIVING FOR INSTABILITY: THEMES

1. WEAK ARCHITECTURE

Weak architecture is the diagonal, oblique and or transverse cut through recollection. Philosopher Sola Morales describes the lingering resonance of poetry after it has been heard, with the recollection of architecture after it has been seen. Weak architecture gains strength from a position of weakness, of not being centered and aggressive and dominating but tangential and weak.

2. RADICALLY IMPERFECT

The radically imperfect will provide the traction for advancing ideas into architecture. SHADOW STUDIO is interested in how these can become charged places of meaning within an architectural investigation. Can giving up some control to changing environments, enacting situations still yield poetic and rich work? Can we yield to the things that we don't have control over and make these critical places where meaning can generate architecture, can structural deflection in a wood frame building or the tolerance in dimensional lumber or other seemingly real annoyances and imperfections be affirmed critically to generate embodied work. This exploration requires a will over reason, DIY, positivistic attitude where one makes no excuses and has no regrets.

3. REVEALING ATTITUDES

When attitude, discovery and material knowledge generate form. Against purely formal methods of working, how can the attitudes that a student already has and methods of working, shape their architecture. Constraints illicit attitudinal responses.

4. CONSEQUENTIAL METHODOLOGY

One becomes aware of one's choices after taking on consequences. One has to make choices that create consequence. Students will be encouraged to make consequential choices.

5. MAKING

Architecture students need to be engaged in making stuff, working with real materials, not just for the sake of making something but because it offers a greater

aim. The encouragement will be to restrict the natural default to catalogue kit of parts fitments and ways.

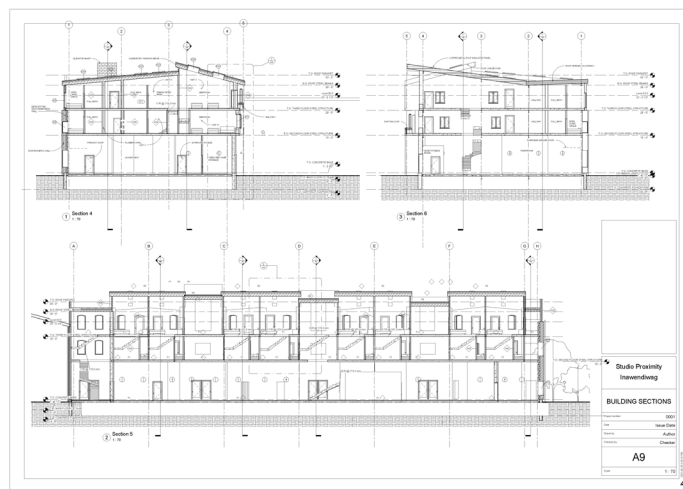
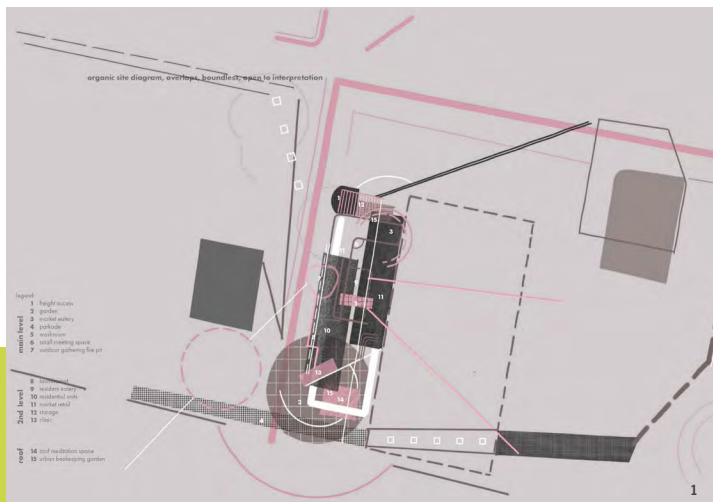
6. SPECIFIC HOUSING

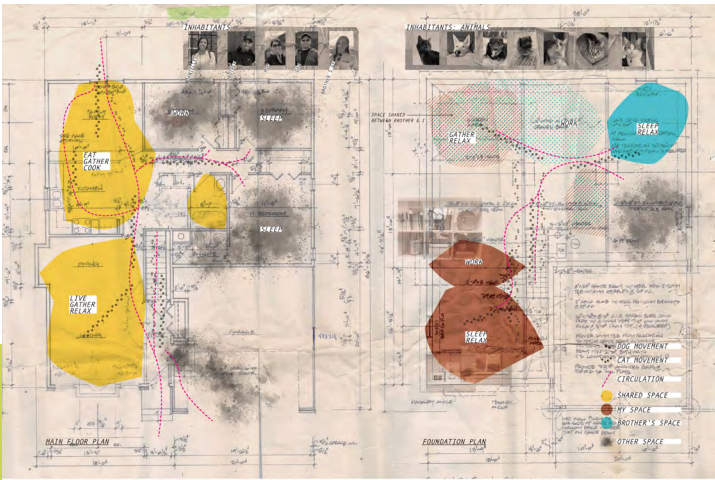
You will design a medium scale housing project guided by your own beliefs. You will draw some of your design at a one to one scale such that you can imagine inhabiting.

7. CPCI FRAMEWORK

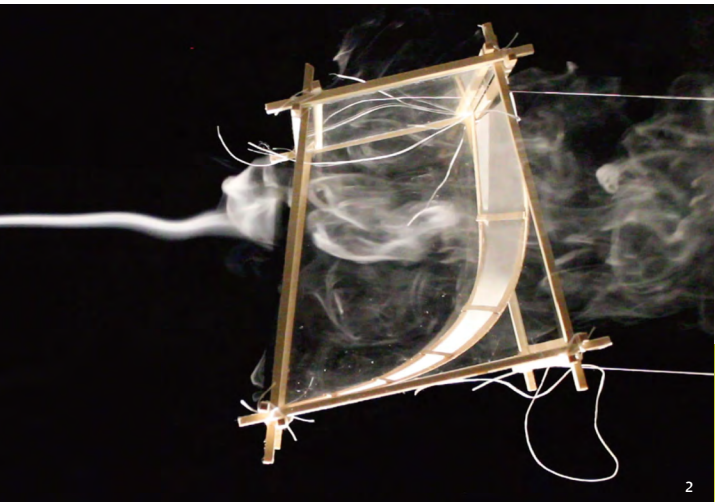
You will explore your ideas in a tectonic physicality in precast concrete. CPCI is providing some funding for this studio.

1-4: Romilie Calotes - Site diagram (1); Site model (2); Perspective (3); Section drawings (4)

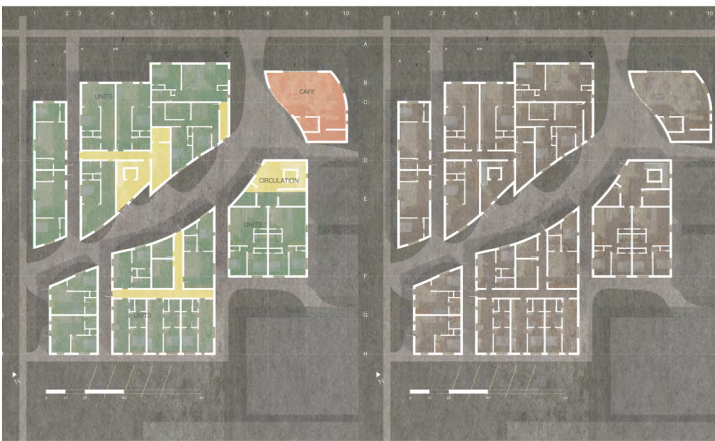




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1-4: Emma Ross - Construction diagram (1); Wall sections (2); Perspective rendering (3); Section drawing (4)



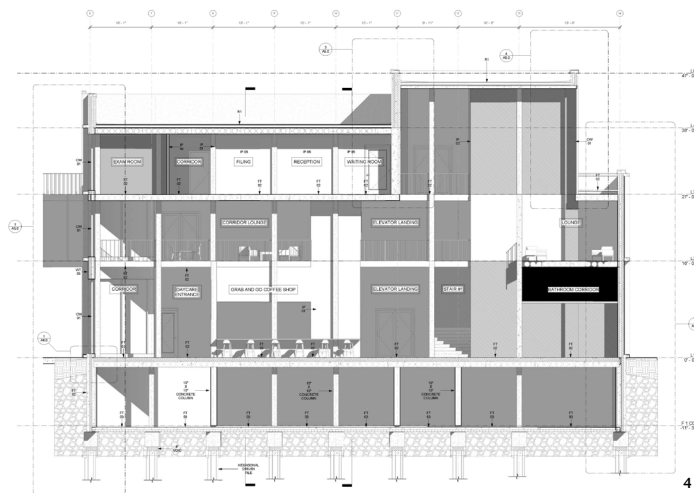
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1-4: Jaden Janzen - Structure diagram (1); Perspective rendering (2); Section rendering (3); Construction model (4)



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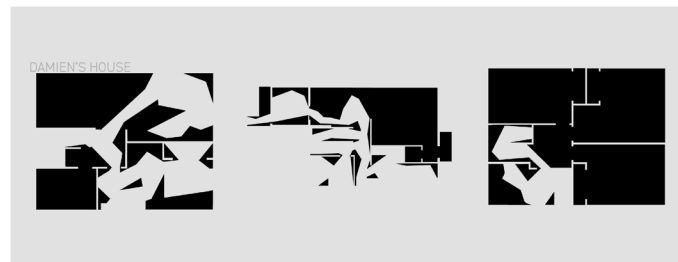
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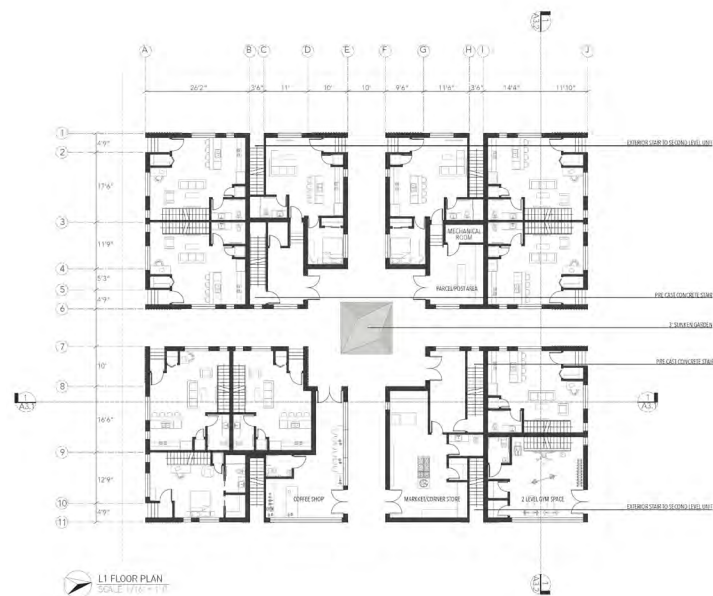
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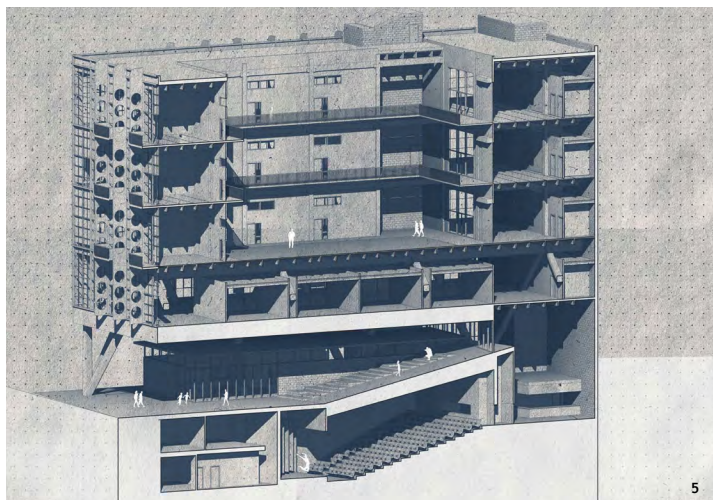
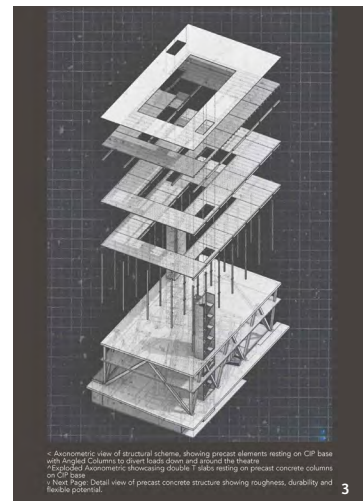
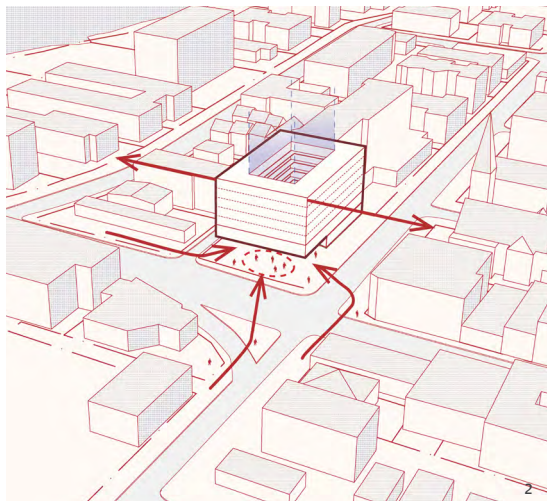
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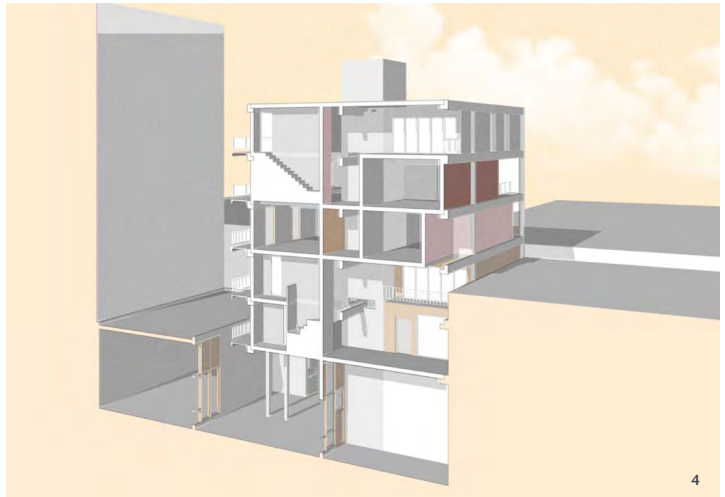
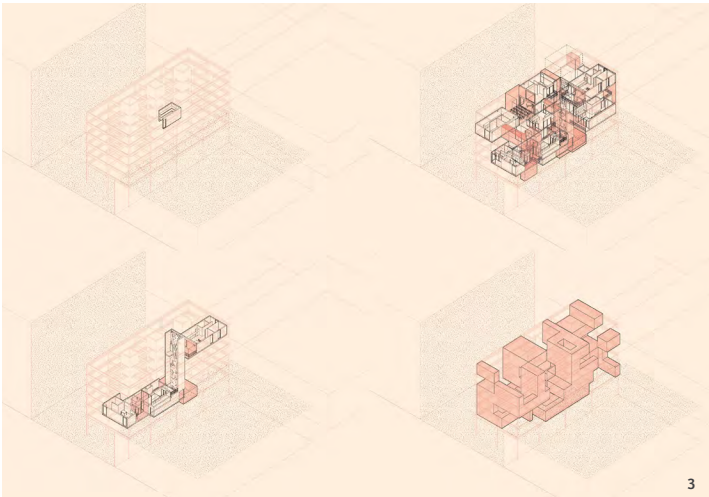


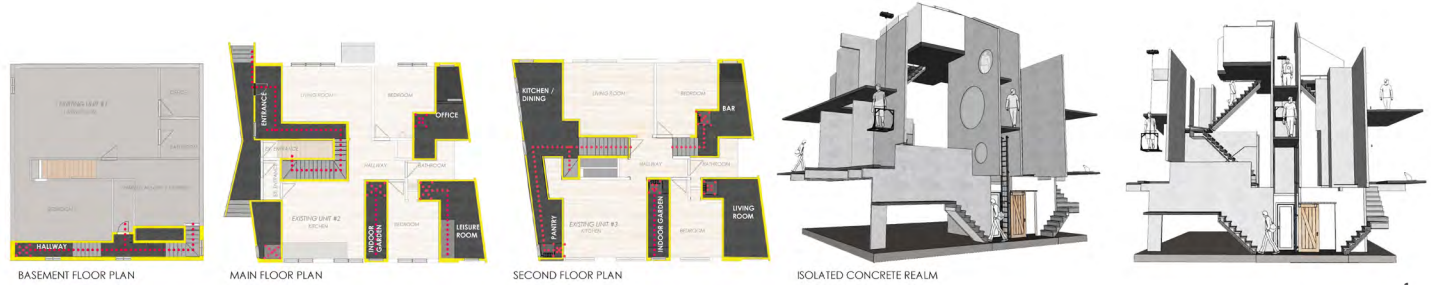
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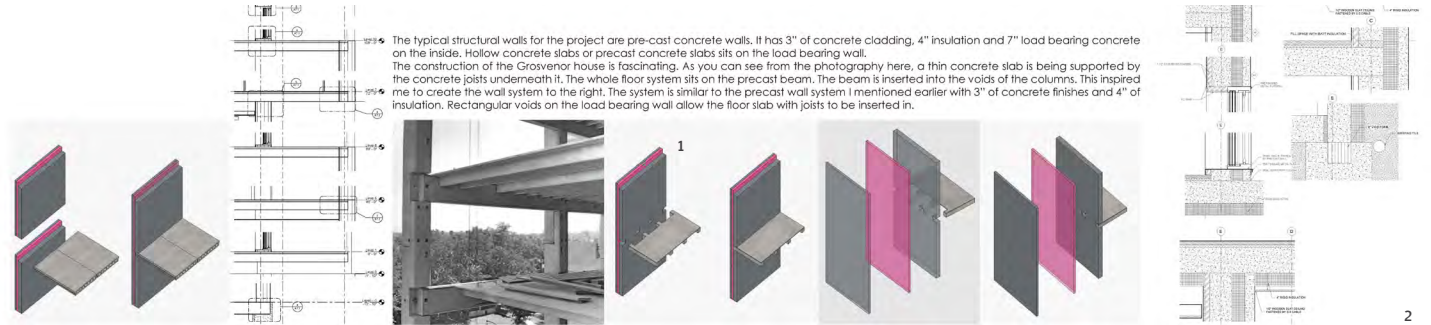


Each decision made permeates through from the first unit on the ground floor, all the way to the last unit on the 5th floor.





1



2



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BIOCULTURAL DESIGN FOR FOREST FIRE KNOWLEDGE AND PRACTICES: KEEPING THE LAND "CHEEKAHNAHWAYDAHUNGK KEETAHKEEMEENAN"

The world is seeing an increase in forest fire frequency and intensity due to climate change. Climate change is causing warmer temperatures, drier conditions, increased lightning, longer fire seasons and summers that allow for invasive insects to kill more trees creating more flammable matter.¹ The boreal forest is a firedependent ecosystem that has been managed through western approaches over the past hundred years. Western approaches have altered the forest regime through forest fire suppression, property rights, industrial and resource management, with top-down decision making that have excluded Indigenous knowledge and communities in the past. Indigenous peoples understand that forest fires are apart of the forest mosaic perceiving it as a living being that shapes the landscape; the Thunderbird gives us a gift of new life which happens when the forest is too old. Indigenous communities in the boreal forest are at risk and subject to wildfire first. "In Northwest Ontario, 60% of First Nations reserves are located within high-risk zones of wildfire areas."² Today's forest fire management policies are determined through the notion of "command and control", this approach is human-centred and often ignores the forests natural ecological processes.³ By rethinking the word management it can begin to develop a framework for architecture to facilitate and question how we can influence, think, and feel about land-use and forest fires. This research will engage traditional indigenous knowledge and perspective with influencing contemporary ways of approaching forest fires. Traditional Indigenous cultures have a reciprocal relationship with the land for example, Cheekahnahwaydahungk Keetahkeemeenan, which means "keeping our land" and to receive a gift, our livelihood, the way we have lived and respected the land. ⁴ This research will look at how architecture can address the increased frequency and intensity of wildfires from climate change in the boreal forest. The research will investigate programs, materials, space, location, and knowledge of wildfire and land-use strategies. This thesis is an exploration of how a shared knowledge approach to thinking, managing, and reading the land which could start to enable change in forest policies and land use. By combining western and Indigenous approaches this research will look at how we can limit the effects of climate change by creating a meaningful dialogue between the land and architectural processes "to care for our forests for future generations - Oohnuhcheekayween."⁵

1 Urbich, Kurtis. Prescribed Fire and Design: Two Biocultural Design Case Studies from Northwestern Ontario. Fire in the Boreal Forest, 2018, 24.

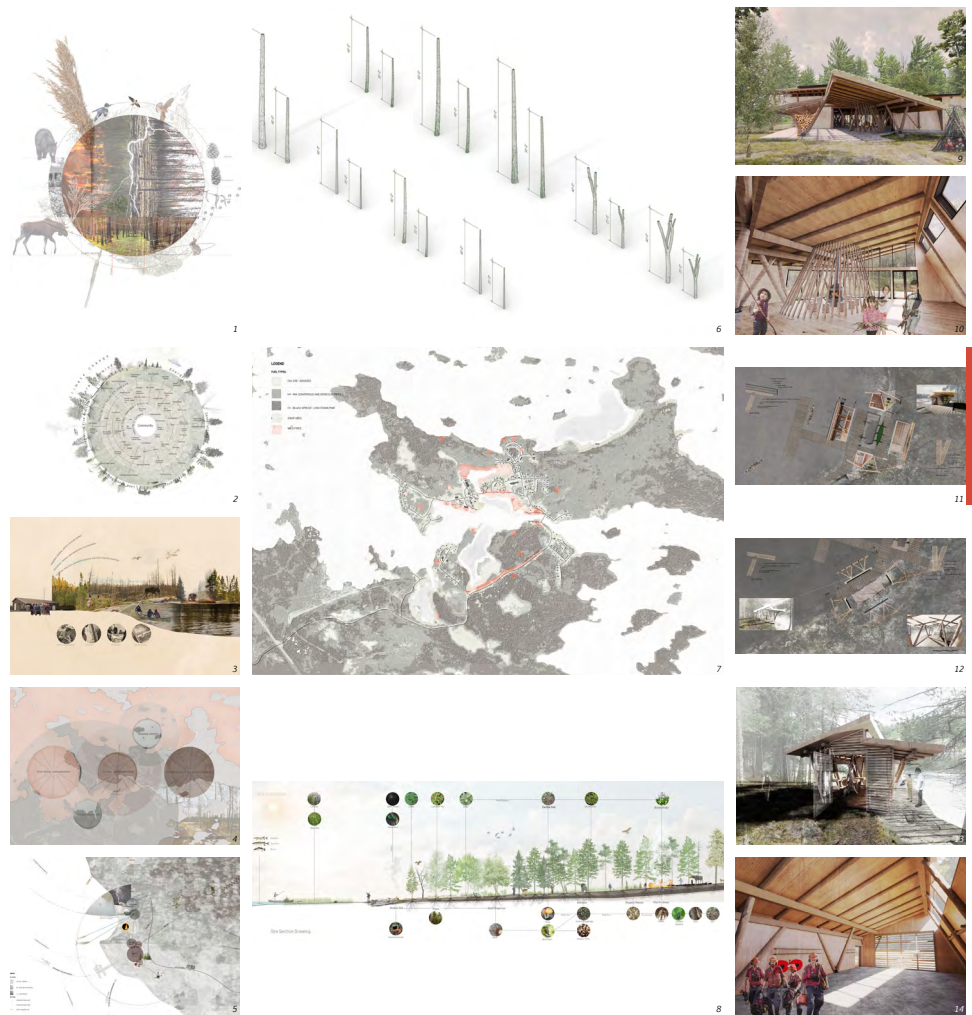
2 Lake, Frank K. and Amy Cardinal Christianson. Encyclopedia of Wildfires and Wildland-Urban Interface (WUI) Fires. Indigenous Fire Stewardship, 2019, 3. https://doi.org/10.1007/978-3-319-51727-8_225-1.

3 Miller, Andrew M. Agency and Resilience: Teachings of Pikangikum First Nation Elders, Northwestern Ontario. Ecology and Society 18, no. 3 (2013): 9. <http://www.jstor.org/stable/10.2307/26269364?refseq=search-gateway:264e733843012e28a04012460740277>.

4 Pikangikum First Nation, and Northwest Region of the Ontario Ministry of Natural Resources. Keeping the Land. A Land Use Strategy for the Whitefeather Forest and Adjacent Areas, June 2006, 6. www.whitefeatherforest.com.

5 Pikangikum First Nation, and Northwest Region of the Ontario Ministry of Natural Resources. Keeping the Land. A Land Use Strategy for the Whitefeather Forest and Adjacent Areas, June 2006, 6. www.whitefeatherforest.com.

1-14: Cultured Landscapes (1); Concept map (2); Collaborative Landscape (3); Program Development (4); Program Mapping (5); Tree Inventory (6); Site Location (7); Site Section Drawing (8); Entry (9); Entry Perspective (10); Boat Storage Structure (11); Butcher and Fillet Structure Plan (12); Butcher and Fillet Structure (13); Firestation interior (14).



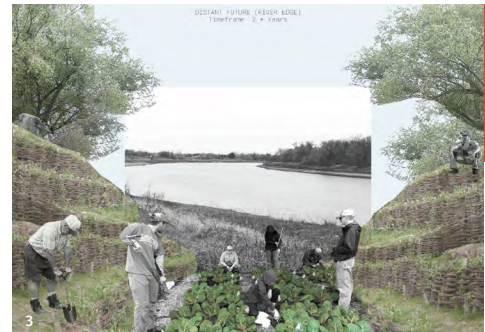
1-15: Fire Station (1-2); Landbased education (3-4); Feating and Ceremony (5-6); Landbased education Interior (7); Greenhouse (8-9); Housing (10-11); Meeting Space (12-13); Workshop (14-15).



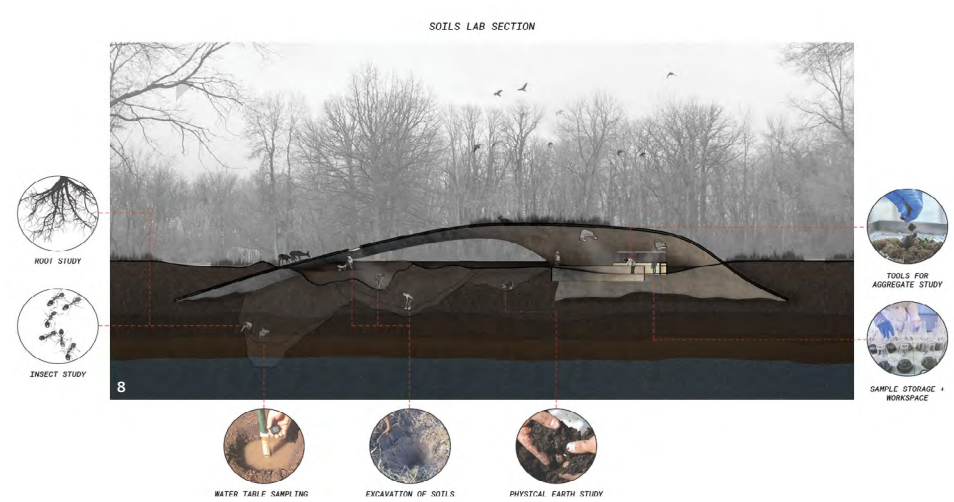
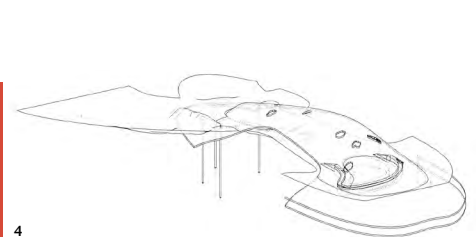
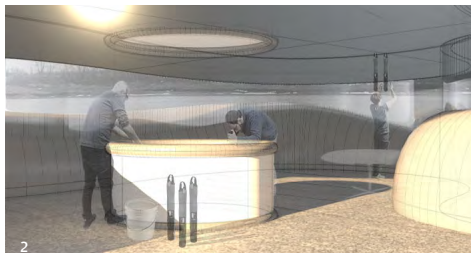
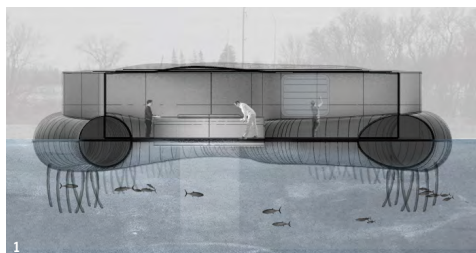
PROJECT: ROOTED IN THE RIVER'S EDGE: NEW METHODS OF FRAMEWORK ON THE RED RIVER

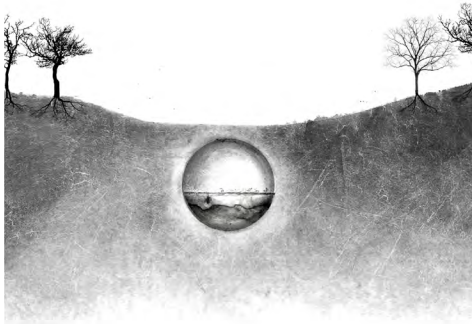
Modern architecture tends to attempt to forge and replicate the beauty of nature only for human admiration. Yet natural systems are the driving forces of Earth. Throughout research, observation, and exploration on the Red River in Winnipeg, this project delves into an explorative analysis of the potentials of incorporating architecture on and adjacent to rivers and riverbanks.

This thesis introduces new ways of framing architecture on riverbanks by integrating naturally sourced material and provoking natural systems to be incorporated into the design rather than being subservient to it. The project aims to embrace the river and its ecological systems as architectural participants.



1: Section through aquatic habitat research lab; 2: Interior view of aquatic lab; 3: Jack fish perspective of underside of aquatic research lab; 4: Foundation and vault design of underground soils lab; 5: Perspective of tree-blind wildlife observation lab; 6: Worm's perspective of tree-blind wildlife observation lab; 7: Construction sequence of soils lab; 8: Sectional study of soils lab describing specimen and sampling subjects.





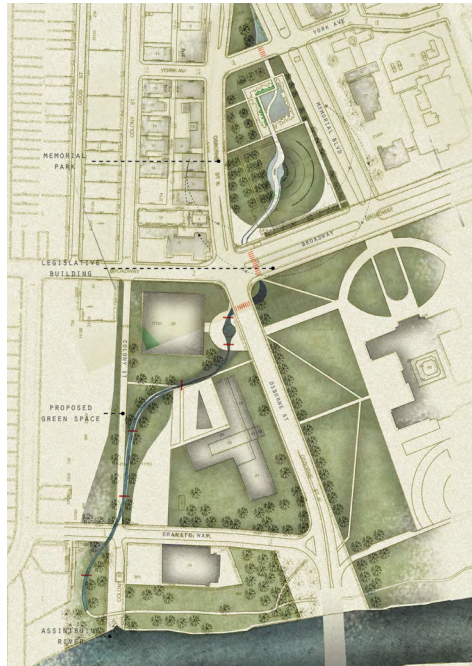
REIMAGINED AUTHORSHIP IN DESIGN: WATER'S AGENCY IN THE CITY

"Avoiding degradation of water includes changing the way water is perceived." - Elder, Haudenosaunee Iroquois Nation (Climate Change & Water Report, AFN, 2008).

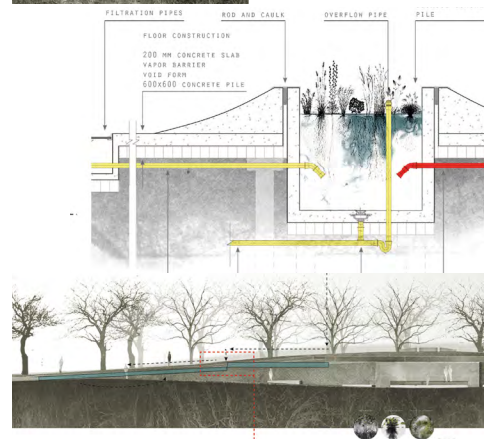
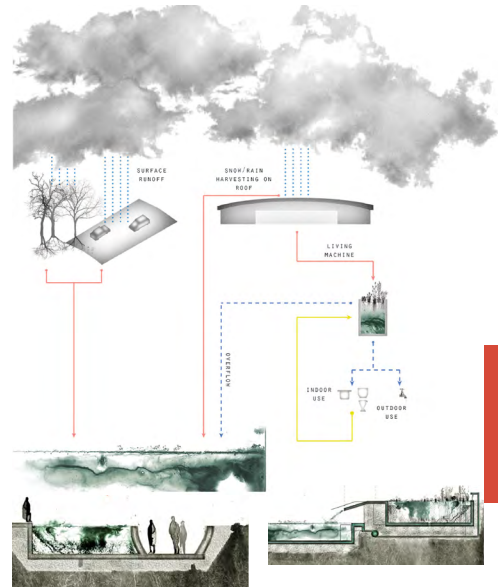
Humans have caused and continue to inflict consequential harm on the environment. This thesis explored ways to move from an anthropogenic mindset of control over nature to one of alliance. By re-defining human relationships with nature, the project sought to mitigate the climate crisis and to expand the notion of authorship in design through an entropic lens.

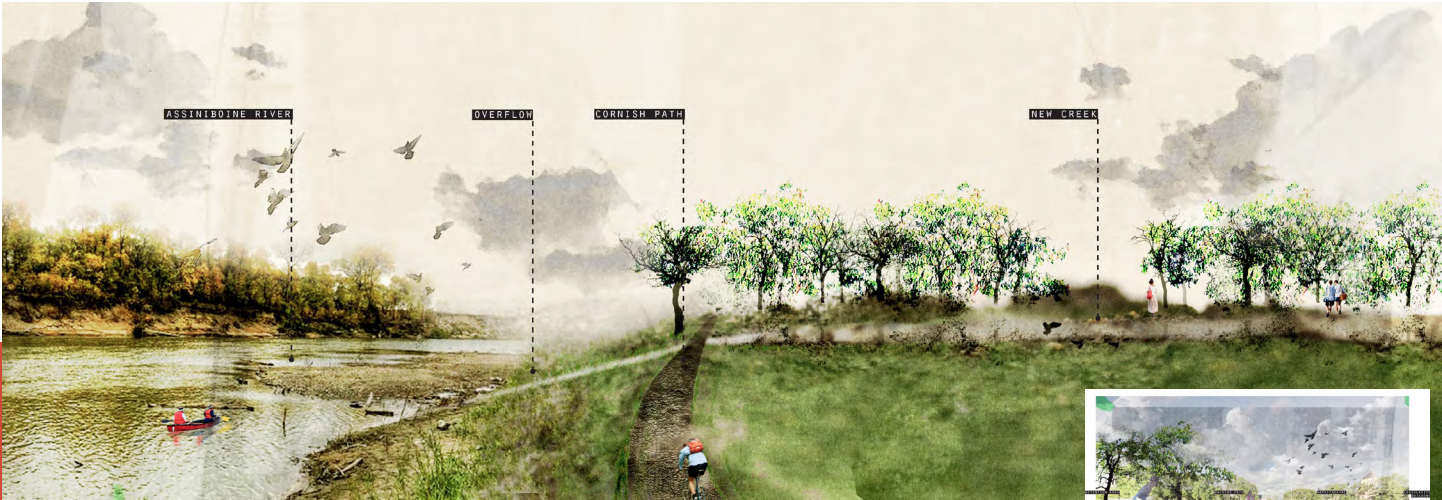
Specifically, the research explored the relationship of humans to water at micro and macro scales, and in docile and disorderly states to make environmental processes, cultural co-dependencies and ecological precarity legible in the public realm.

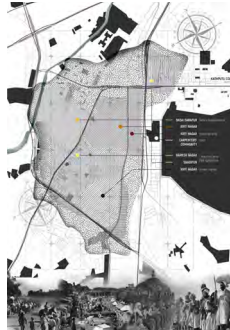
Sited at Winnipeg's Memorial Park on the Manitoba legislative grounds, the design featured interventions to reveal humanity's dependence on water and make sustainable systems more visible and viable, while urging governments to be more accountable to climate justice and social justice. Design strategies included natural filtration, a living machine and bioswales, plus a learning centre, community paths and gathering spaces - all to foster positive environmental and social change.



Site plan; water studies; and design for living machine and bioswales.



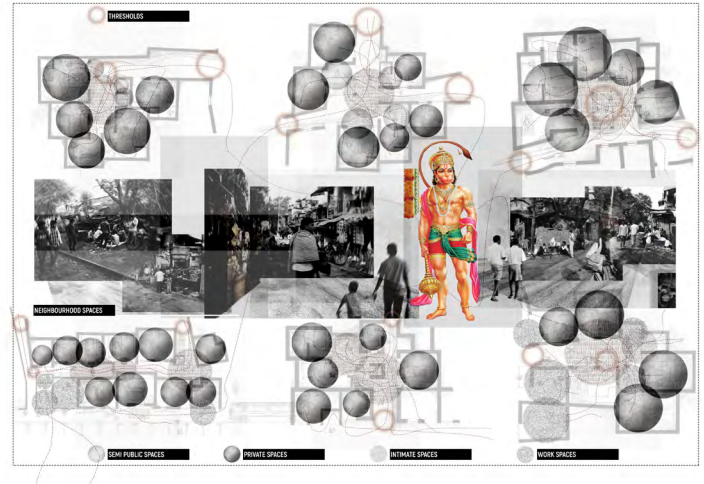
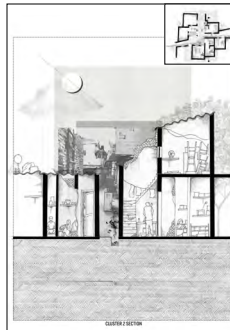


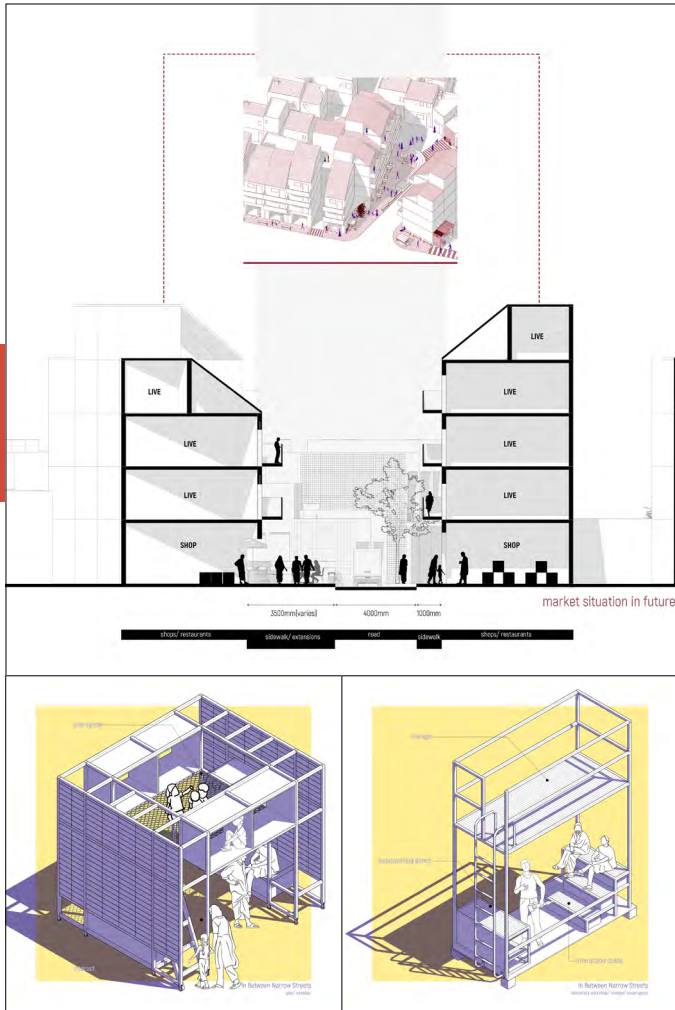


A SUBCULTURE FROM SAWDUST: URBAN REGENERATION AND IDENTITY FOR A COMMUNITY OF CARPENTERS IN DELHI

Culture reflected in the built environment of the individuals who created them creates rules and habits that define their lifestyle and perceptions in their setting (Yilmaz and Maz, 2006, p. 140). Due to urbanization, the insensitive approach of architecture, and the changing urban fabric of the cities, most of the cultures have been damaged, raising concerns about their extinctions and destruction of cities' diversity.

This design thesis envisioned defining a sensitive approach to the architecture of a local community in an identical and cultural sense. It focuses on the Carpenters' Community of Delhi. This thesis rejects the standard practice of demolishing informal settlements and building new structures and utilizes existing spatial and socio-economic networks to promote community engagement and cultural growth. The project proposes regenerative strategies to improve the existing poorly used spaces and develops designs that worked as social, economic and cultural infrastructures. These ranged from neighbourhood gathering spaces, primarily for women and children, to the cultural center for community gatherings and celebrations. Repairment of existing infrastructure, public spaces along with revitalized sidewalks promote and strengthen local businesses. Focusing further investigations on the research of the carpenter's community's material culture, this thesis aims to use local, sustainable materials to evoke memories and a sense of familiarity and identification of the carpenter with the new built environment.





MAKING STORIES: FACILITATING SPATIAL AGENCY THROUGH DEMOCRATIZED DESIGN

If we truly believe that design wields the power to improve our quality of living, inspire awe, delight, comfort, and healing - why is the practice of architecture out of reach to over 95% of the global population? This thesis asks the questions: how can we democratize the skills and knowledge base of the formal designer, and what can we learn from the informal designers and builders of our world?

The majority of formal designers work within the reality of Industrialization and globalization which have contributed to an era of mass-production and homogenized design. While this has maximized design accessibility and affordability it has also resulted in a shift from a craft-based vernacular architecture to one that neglects to consider the individualistic needs, cultures, climate, techniques and materials local to a place. This neglect, compounded with the legacy of colonization, has led to failed housing practices in Canada's First Nation communities . 3

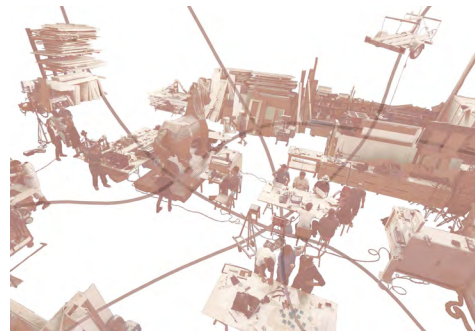
Avenues for democratized design have begun to emerge through bottom-up movements such as "the maker movement": a socially-driven technology-enabled trend focused on increasing self-reliance through participatory craft and open-knowledge networks. This thesis seeks to inject the spirit of the maker movement into a design process that emphasizes inclusion and empowerment. It is in the context of the housing crisis facing First Nation communities that I believe the theory of democratized design can bridge formal and informal design thinking to create adaptable solutions and build capacity. With drastic cultural, economic, and environmental differences between First Nation communities there can be no one-size-fits-all solution. The outcomes of this thesis will be an investigation of architecture, not as a finite commodity, but as a technique for story-building and facilitating spatial agency.

"The Promethean Architect: A Modernist's Hero." *Open Source Architecture*, by Carlo Ratti and Matthew Claudet, 1 Thames & Hudson, 2015, pp. 21-21.

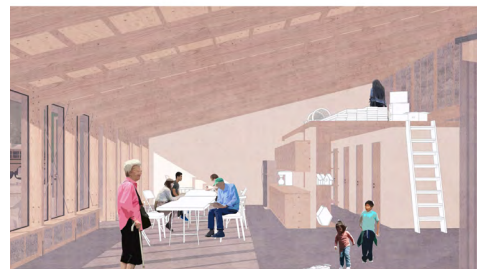
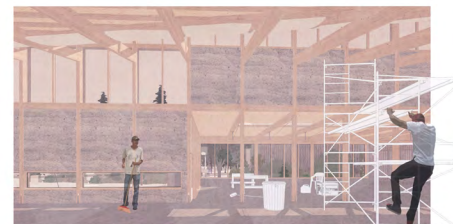
Umbach, Malten. *Vernacular Modernism: Heimat, Globalization, and the Built Environment*. Stanford Univ. Press, 2005.

Dyck, Lillian E., and Dennis Glen Patterson. *Housing on First Nation Reserves: Challenges and Successes: Interim 3 Report of the Standing Senate Committee on Aboriginal Peoples*. Ottawa: Standing Senate Committee on Aboriginal Peoples, 2015.

Cary, John. *Design for Good: a New Era of Architecture for Everyone*. Washington: Island Press, 2017. 4



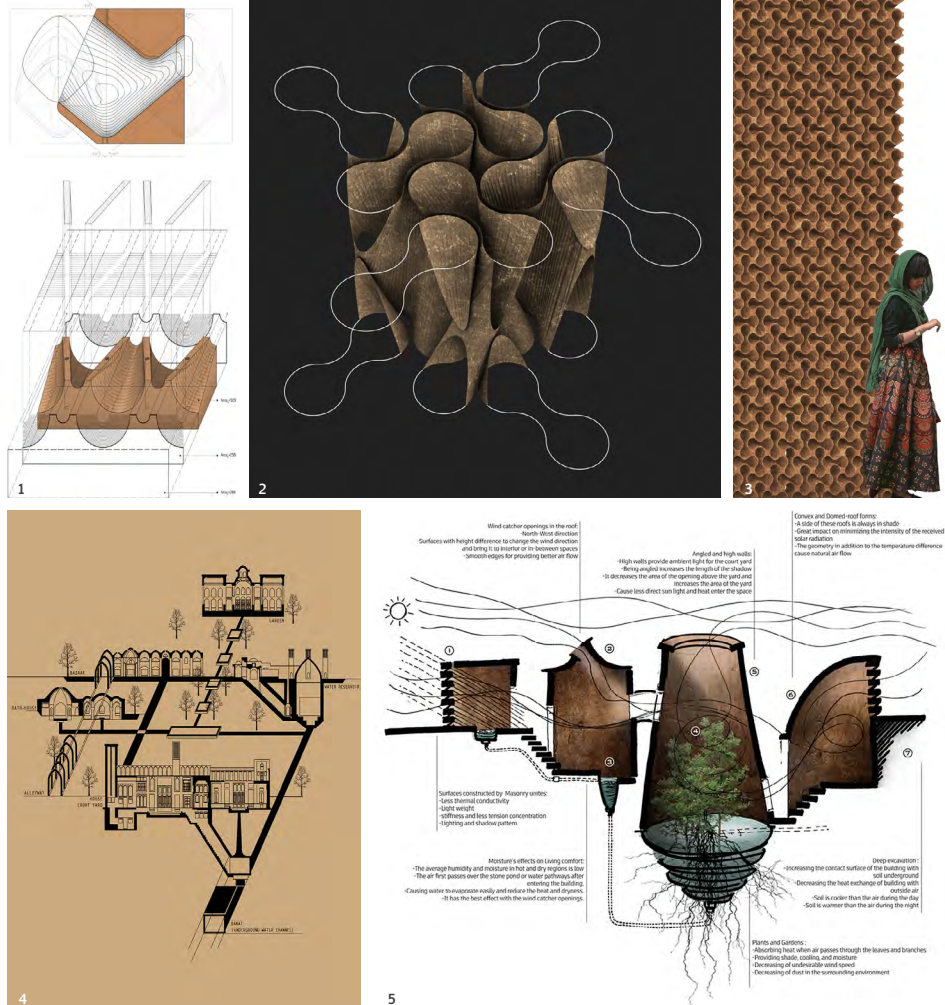
1-9: Common Building deficiencies (1); Common Building Deficiencies interior (2); Active Shop (3); The Passive Shop (4); Collaborative Building Grounds (5); Entrance (6); Exterior Perspective (7); Outdoor Work Space (8); Social Spaces (9).



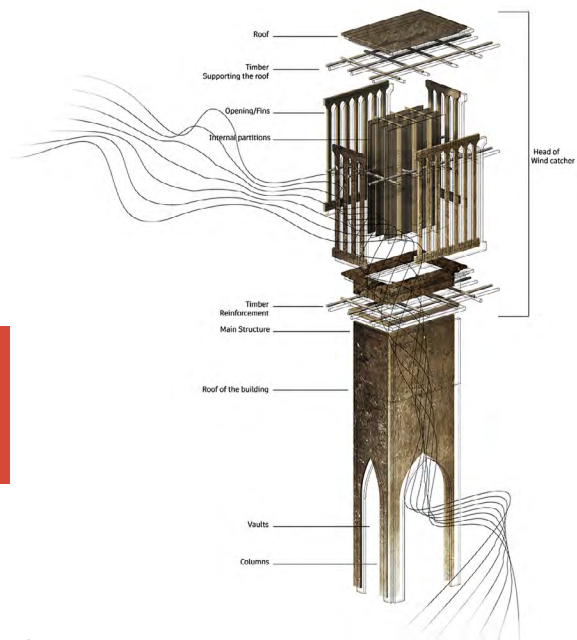
PROJECT: A LIFE MADE FROM CLAY: REVIVING AND RE-THINKING EARTHEN ARCHITECTURE

Earth is a ubiquitous source of material; Earthen materials have been the most widely used building materials on the planet. buildings constructed of local soils can be found almost everywhere in the world. However, local soils and earthen materials have now been replaced by Cement recently, and it has disastrous impacts on Architectural identity of some historic regions in the world.

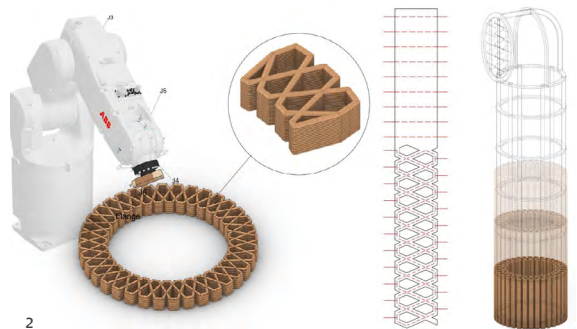
One of these regions is Yazd, in Iran with its nature oriented culture. It is a historic city with stunning earthen architecture and clay structures that was recently inscribed on UNESCO World Heritage List. Inspired by the "Sense of Clay" in Yazd, the aim of this thesis is to study new possibilities for integrating this traditional and sustainable material with new construction developments to meet contemporary needs.



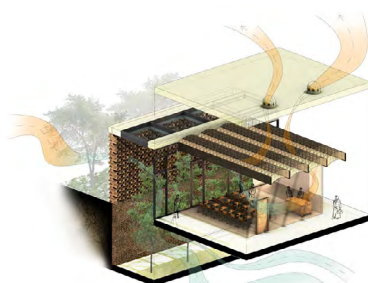
1: Traditional wind-catcher Tower study; 2: Robotic clay assembly for proposed wind-catcher tower; 3: Classroom courtyard and roof ventilation study; 4: Perspective of classroom and courtyard; 5: Perspective of gallery; 6: Brick and airflow study for full design proposal.



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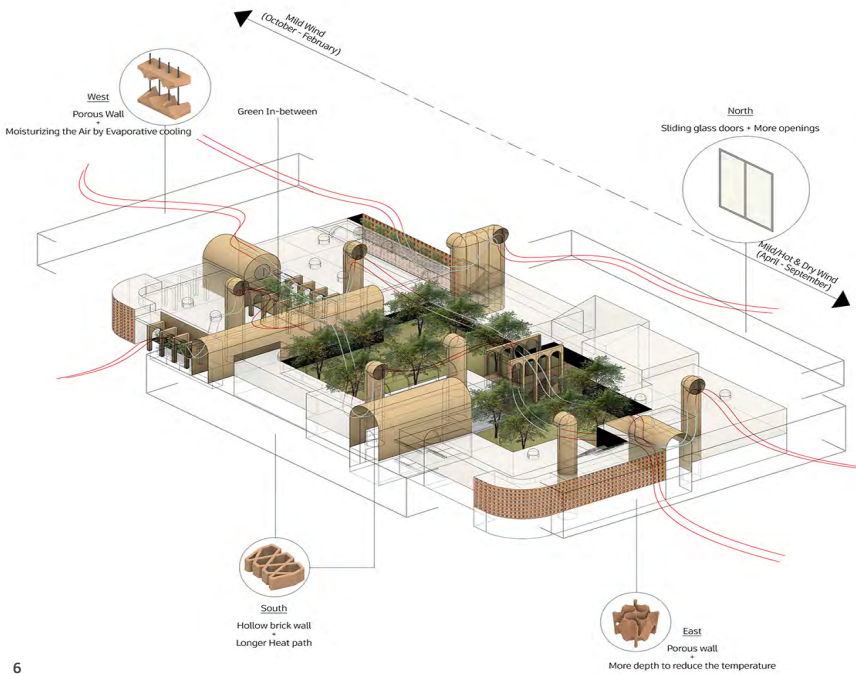
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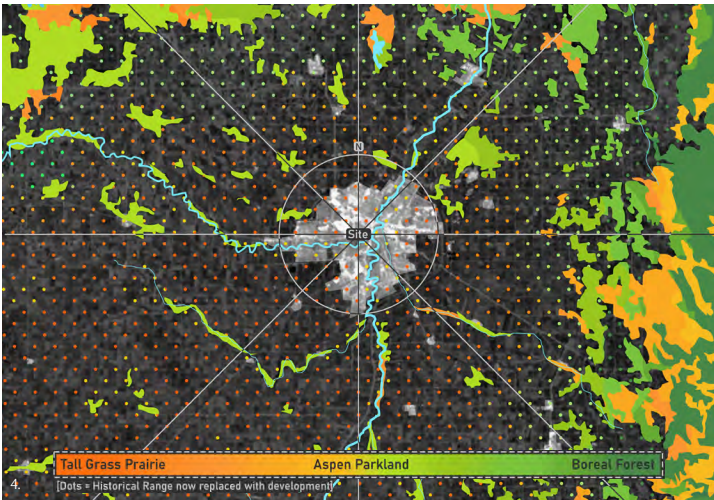


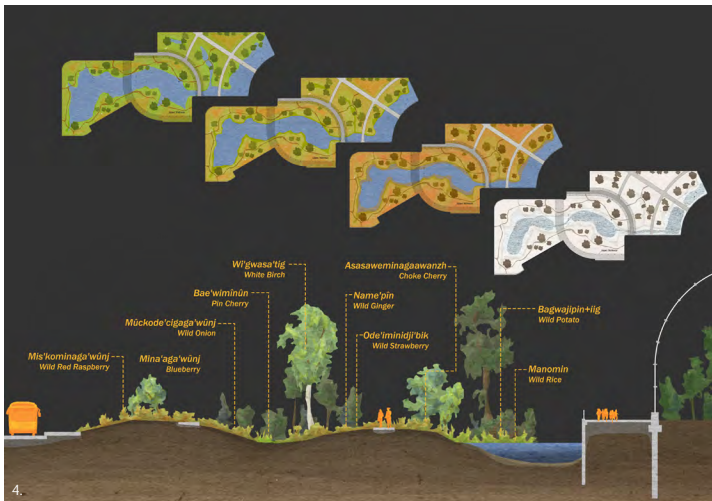
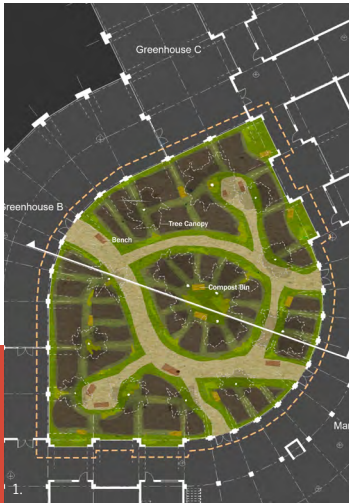
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PROJECT: DEVELOPING URBAN FOOD RESILIENCY

The proposed ecological community centre for Winnipeg's West End district addresses the issue of land development as a means of bettering human communities at the expense of the natural systems of the land, and aims to envision how we may better design urban spaces to be inclusive of both human as well as natural systems within our cities. If urban development is to continue, it is pertinent that we do so in a way that is beneficial to the ecological systems around us.

The proposal includes two buildings on the site, along with a central large park that will be dedicated to regenerating a traditional Tall Grass Prairie landscape as there may have been prior to urban development. The site will also include interior greenhouse atria that will support plant species throughout the year. In both areas, it is proposed that community organizations will be able to facilitate educational and recreational programming that will focus on urban gardening as a method to support the community while also caring for the land within the context of the city. There will also be a central marketplace which will primarily act as a farmers and artisans market, encouraging community members to develop their own means of food production within the community to be sold and shared in this central community hub thus hopefully extending the impact of the project into the community.







Humans are creatures of stories. Storytelling shapes social values, creates shared identity, and connects us to places we live by revealing latent myths and meanings in the natural and built environment.

This project explored performative storytelling, folklore and puppetry as forms of cultural exchange, sustainability and community-building. Research was guided by personal interviews, study of stories from different parts of the world, film-making, and artistic interpretations of traditional tales & building techniques.

The design thesis proposed a new multicultural storytelling venue, called The Cocoon, sited in the downtown Exchange District of Winnipeg. Winnipeg has the highest percentage of immigrant and Indigenous populations compared to other cities in Canada; and the Exchange District, with its many heritage buildings, is a National Historic Site. The design sought to preserve and promote both narrative and architectural heritage by transforming the 1907 Maw's Garage building – located across from Old Market Square – into a welcoming staging ground for stories at many scales.

Providing magical spaces to make and share stories, The Cocoon aims to celebrate multiculturalism, and inspire hope among immigrants, while shaping a more inclusive city.

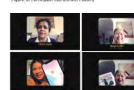


The Multicultural Stories of Winnipeg

Watch the video here!



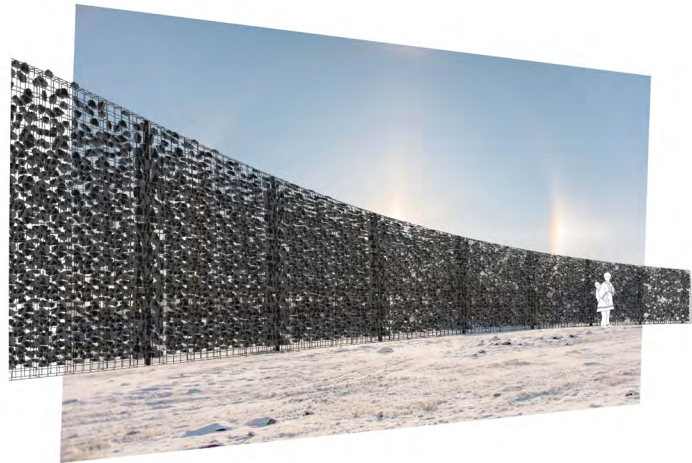
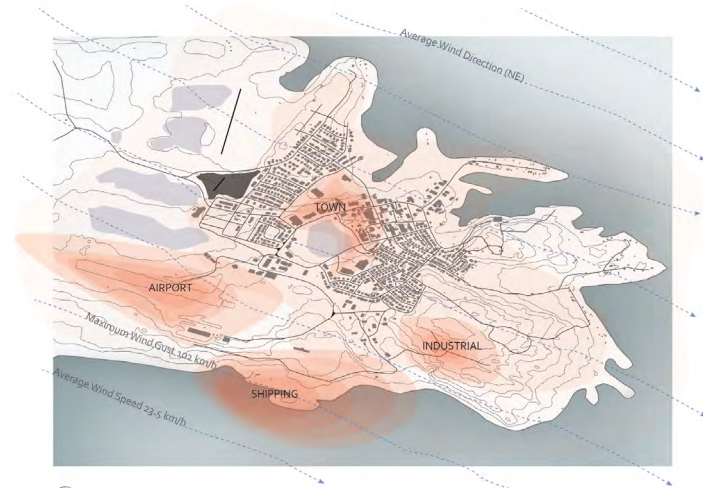
By sharing their histories, participants can give inspiration to fellow immigrants who are going to watch this documentary film. The familiar stories can give resistance to both participants and viewer by celebrating their cultures and histories. In Winnipeg, immigrants who watch this film can also find strength by hearing the actual stories of the participants.

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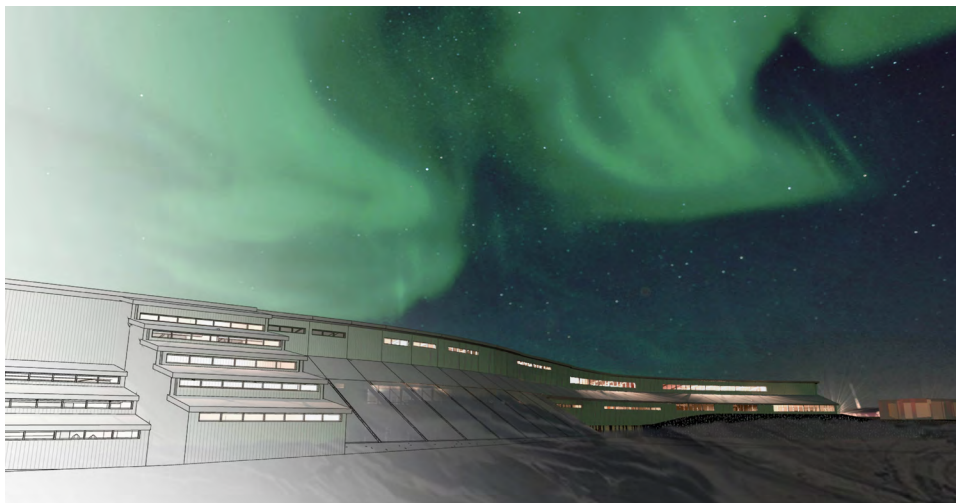
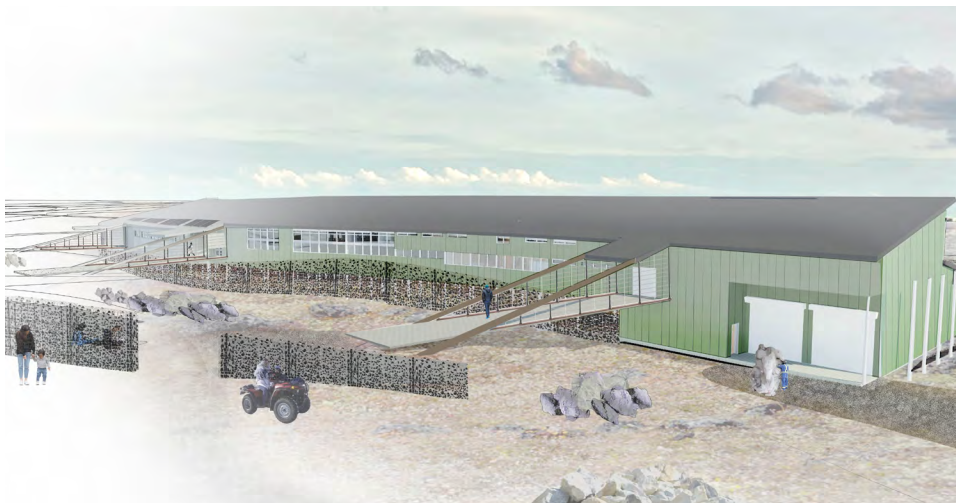


UKUIQTUQTAQTURMIK SAPUMMINIQ: PROTECTING THE ARCTIC: CONSTRUCTING INUIT SOVEREIGNTY

With the current trends of globalization, climate change and increase of populations, it is critical to analyze the development of the Circumpolar regions. This project proposes a design strategy that responds to the changing landscapes, culture and communities represented in an architectural project which can ensure arctic stewardship, and Inuit autonomy. In the program of a land-based education center located in Rankin Inlet Nunavut, this project represents a snow fence that is partially powered by wind turbines and solar panels. This is to decrease the consumption and reliance on diesel fuel. The building itself acts as a snow fence allowing snow build up on and around the building which decreases snow build up on buildings within the hamlet. There are also gabion snow fences placed within and around the design utilizing local rock. This program combines academic research with culture and community, creating a connection between the local Inuit community and global society which can then work towards projects that support knowledge renewal as well as knowledge transfer. This is a critical collaboration for the future development of the fast changing arctic and Indigenous circumpolar peoples.



1-5: Gathering Space (1); Quilq Fireplace Entrance (2); Storyroom (3); Exterior Image Summertime (4); Exterior Image Wintertime (5)



WÁHKÔHTOWIN: ARCHITECTURE FOR OUR KIN

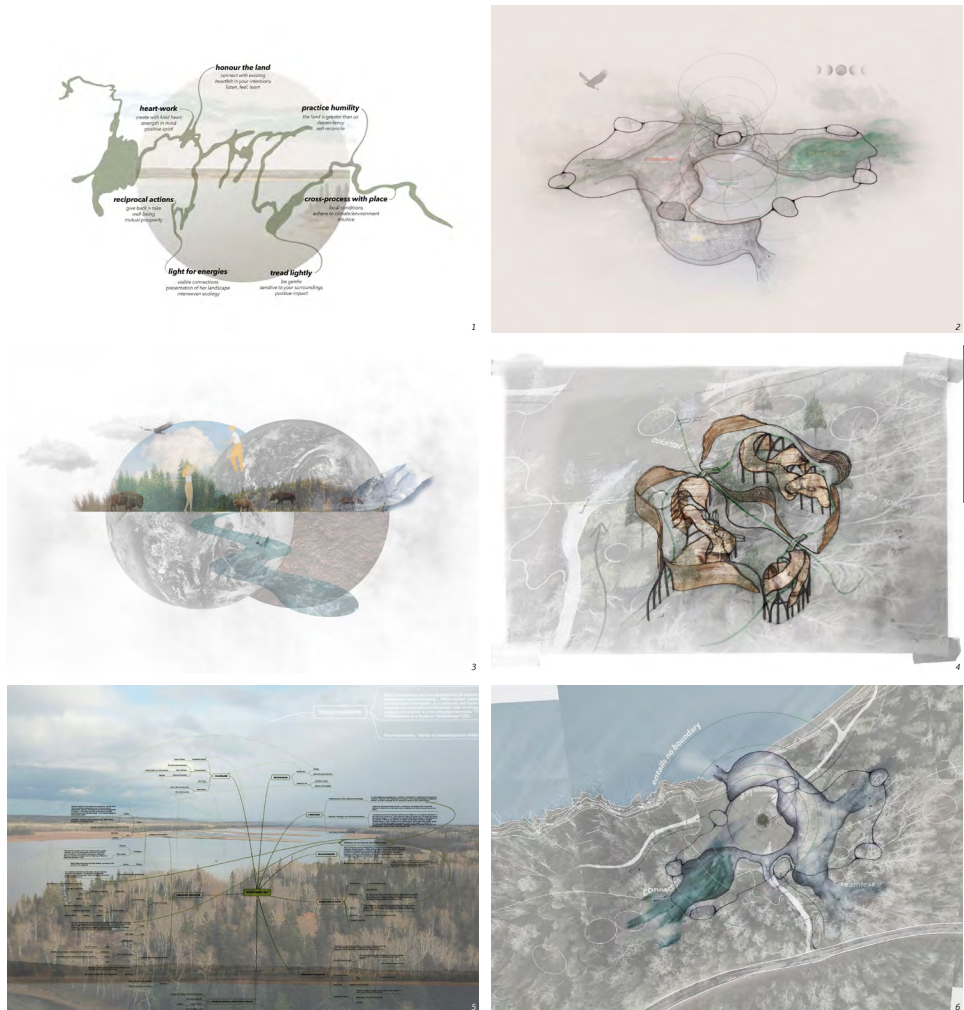
Sustainability, although attempts to address environmental impacts, still attributes to an egocentric view, only for the benefit of humans. Connected to the western and colonial concept that we are designing to sustain ourselves.

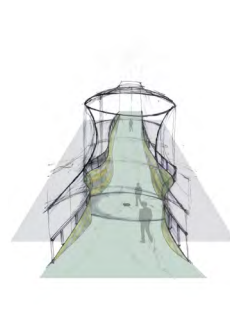
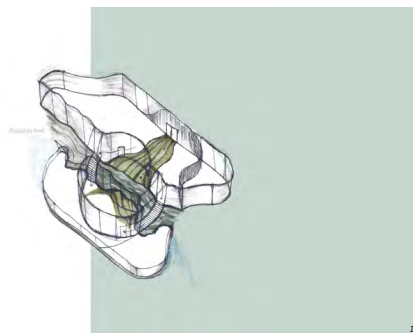
Robin Wall Kimmerer eloquently speaks to the affect of colonialism: "In the settler mind, land was property, real estate, capital, or natural resources. But to our people, it was everything: identity, the connection to our ancestors, the home of our nonhuman kinfolk, our pharmacy, our library, the source of all that sustains us. Our lands were where our responsibility to the world was enacted, sacred ground."¹ This design thesis will explore how architecture can reconstruct a contemporary approach to sustainability by incorporating an Indigenous worldview, one that considers all of creation.

Through history, architecture has been strongly influenced by colonial worldviews. Worldviews which have contributed to the loss of Indigenous knowledge, destruction, and violation of land. Indigenous ways of knowing work reciprocally with the more than human world, where human-centric approaches such as industrialization has caused destruction of entire habitats, ecosystems, and living beings. Attributing to our diminishing connection to the land.

Today, Indigenous peoples are attempting to regain our values and writing a new story. The act of regaining knowledge attributes to the understanding of Wáhkôhtowin, a teaching that translates to "everything is related" and refers to kinship. Our understanding of our relationship with our kin allow us to reestablish and define our collective responsibilities with the Earth. This way of thinking creates a new story, shifting how we interact with the world. How do we start to redesign how we approach sustainability in architecture? Using design to enact our responsibility in incorporating and working with the environment that surrounds us and all who reside. How can we use the teaching of Wáhkôhtowin to create a paradigm shift in how we think about the built environment?

¹ Kimmerer, Robin W. *Braving Sweetgrass: Indigenous Wisdom, Scientific Knowledge and the Teachings of Plants*. Milkweed Editions, 2013. 17.





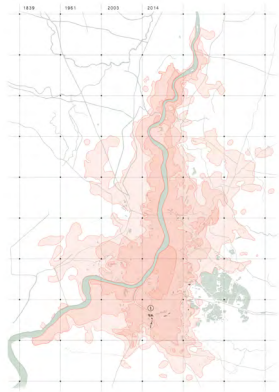
URBAN SYMBIOSIS: CREATING A RELATIONSHIP BETWEEN THE SLUM AND THE CITY FOR THE BETTERMENT OF THE SLUM DWELLERS

As an architecture student, I have linked the slum dwellers and the affluent neighbourhood facing environmental threat and lack of scope for prosperity through policymaking by connecting ecology and economy, by analyzing the available local resources and opportunities for the betterment of the slum dwellers and the neighbourhood.

Slums are known as urban villages lacking civic amenities. These are a predominant issue in India with no single solution to the problem as every slum in India has its history behind its existence. These came into existence in the city of Kolkata with the commencement of trade between the British and the Mughals. The city being the capital of British India, attracted many migrants to settle in slums, which proved to be the cheapest of all housing types. The residents living in these settlements form one-third of Kolkata's population. These slum settlements located along the floodplains face frequent flooding issues due to the tidal movement of the sea, which is a significant environmental threat.

This thesis explicitly aims to create a symbiotic socio-economic and cultural connection between the residents living in this existing slum of Kalighat located in Kolkata to its surrounding city areas. Creating a link connecting the slum to the affluent neighbourhood. From the canal, Adi Ganga's bank to the other end aims to address the settlement's hygienic conditions, enhancing community engagement, organizing space for interaction, economic activity, sustainable development through proper planning and addressing environmental issues through flood management. Thus integrating properly with the surrounding residential areas and helping them prosper socio-economic and culturally in the society.

Expansion of Kolkata city (1); Struggle with frequent flooding (2); Existing natural systems (3); Tidal level of the canal flowing along the site (4); Urban symbiosis of the poor and the affluent in the city (5).



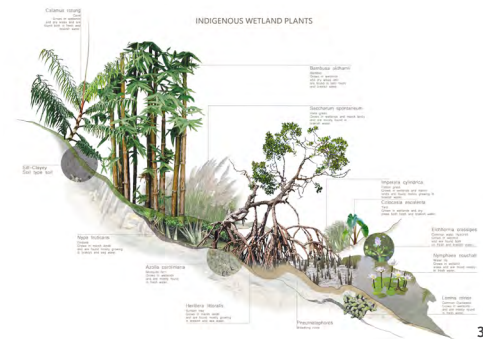
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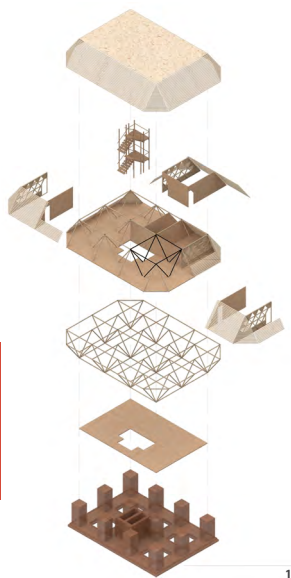


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Exploded view of proposed dwelling unit (1); Strategising flexible dwelling unit based upon user needs (2); Site proposal and amalgamation of various interdependent on-site activities (3); Sectional view through the proposed site (4).



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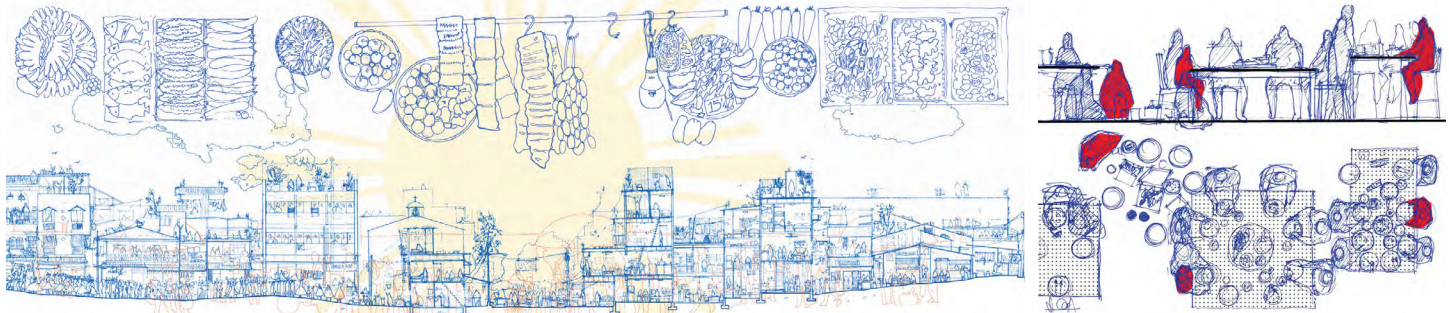
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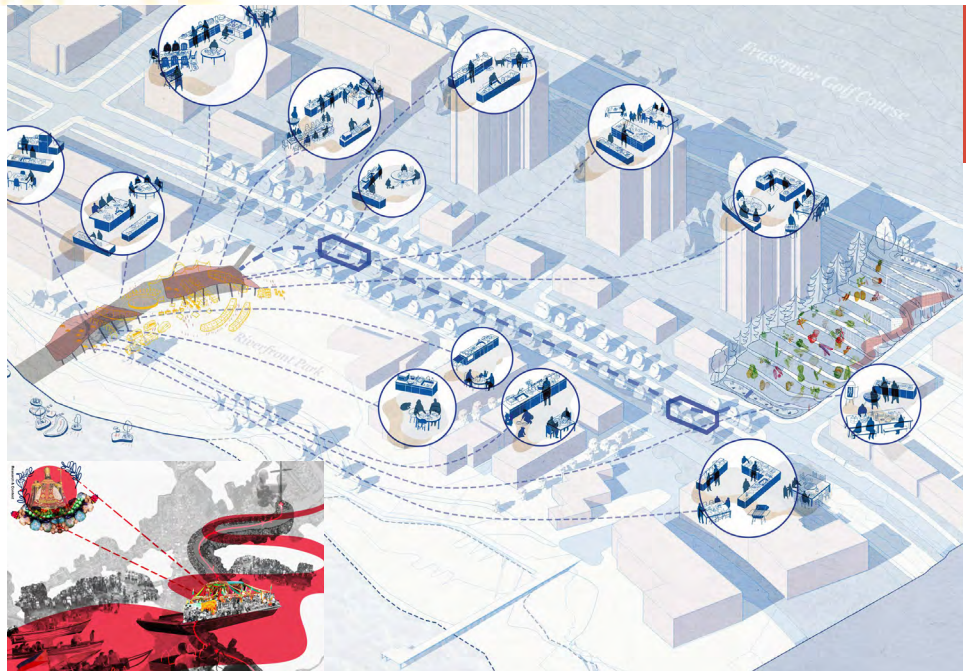


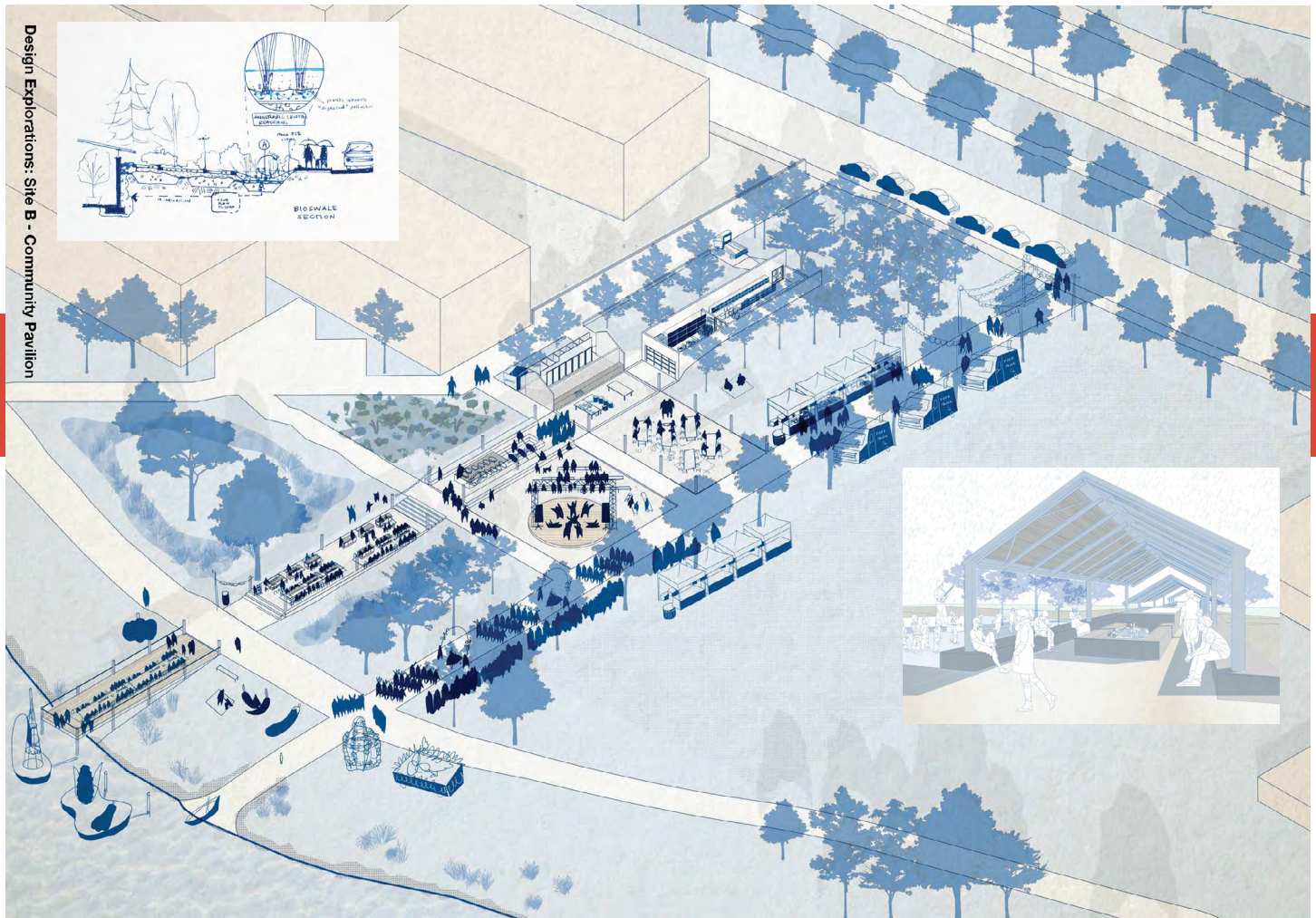
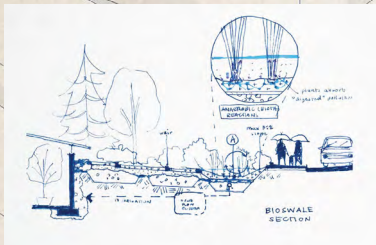
THE FEAST OF AN ARCHITECTURAL SPACE

Food and ritual have been integral to community-building and city-making since time immemorial. The word 'feast' derives from the Latin word *festus*, meaning festive or joyful. It presents a time for renewal, gratitude and celebration. This thesis explored how dining rituals can generate collective happiness, guide the design of public space, and build cultural pride for a minority Filipino community Vancouver.

The project involved personal reflections and artistic interpretations of 'happy places' and analysis of configurations for shared meals. Research included study of traditional street festivals and fluvial processions of the Philippines, in which communities decorates houses, dine collectively and reimagine the city's visual landscape by turning streets into places of performance, transaction, and festivities.

The design proposal for the Fraserview-Killarney neighborhood included community gardens with indigenous vegetables, interconnected landscapes, festival grounds, outdoor dining facilities, and permanent collective cooking and maker-spaces. The project also aims to reinforce a culture of sharing to counter the individualistic values of modern society and to foster sustainable reciprocity with the natural environment.



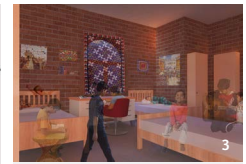
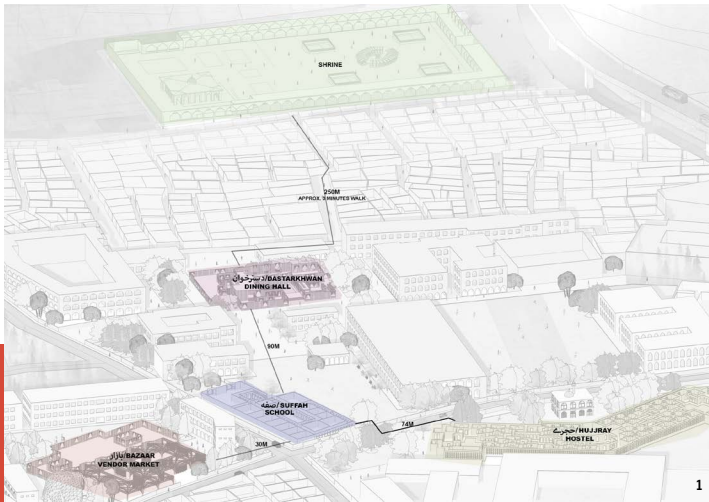


ARCHITECTURE FROM PAINS TO DREAMS: ADVOCACY FOR THE UNFORTUNATES

For as long as I have lived in Pakistan, I have encountered news of street children's pain on a daily basis. While walking down the streets of Lahore, I have seen many small children who are the victims of social discrimination and class segregation. Here, children sleep in the streets and on the pavement, begging for a one-time meal or doing small tasks to fulfill their family needs. These children lack a proper shelter and living in conditions that are below the level of human decency. Street children can be found at shrines to fill up their stomachs and beg from the daily visitors. During the night, if they can, many of them also find safe shelter at the shrines. The Thesis is aimed to explore the opportunities that might be created for street children at one of the most significant shrine in Lahore Data Darbar as a potential model for all the Darbars (Shrines) in Pakistan. The Thesis began with designing a storytelling space for children at the center of Data Darbar's courtyard. The primary purpose of the storytelling space is to develop a space for love, empathy and respect. The next step of the Thesis was to develop in detail an institute on a specific site where children can study and learn skills, and which can provide housing for those who don't have a place to stay at night. The programs selected according to the needs of the children. All the proposed programs are placed in the already established institute to increase the general public's tolerance towards street.



1-9: Site Plan : Proposed programs and existing context of the site (1-2); Perspective of programs enacted with life (3-5); Bazaar: Vendor Market perspective, Showing spatial relationship of market, workshop, and courtyard (6); Perspective: View of the New Home for the children, showing activities in the courtyard, lighted corridors and community developed with the layout of the Rooms (7-8); Section showing relationship between the different programs and activities in a program (9).

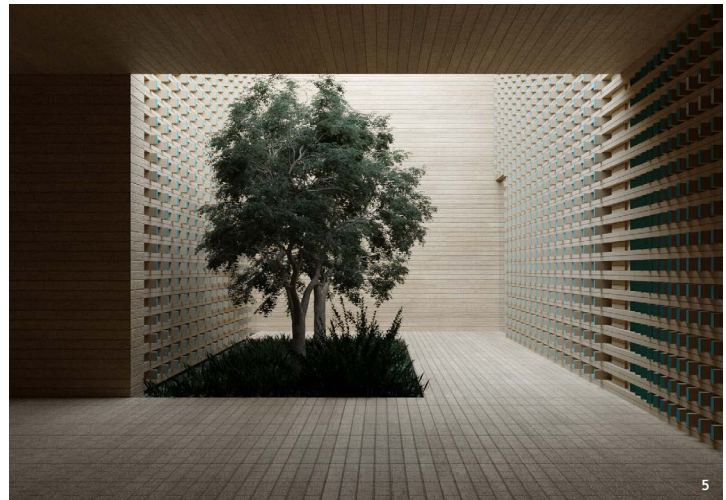
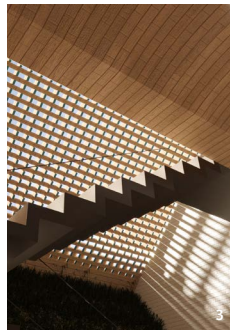
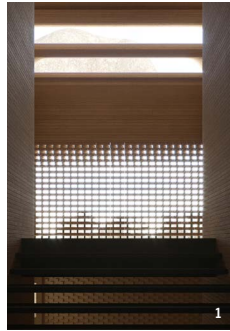


LOST AND FOUND

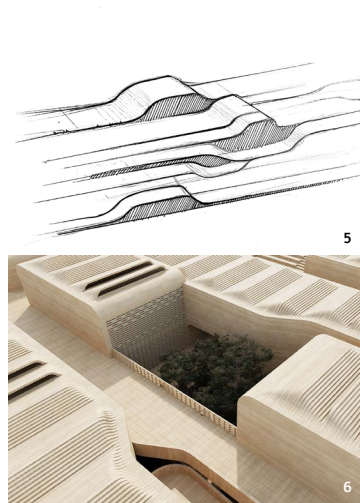
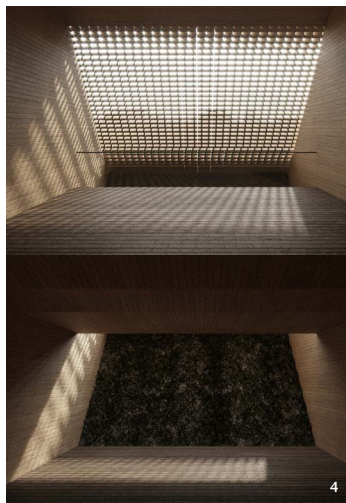
For 3000 years, the Sialk hills of Kashan city, in the central desert of Iran, has been synonymous with carpet weaving. What if brick, the most-commonly used building material in Iran, were the construction fibers of a new carpet blanketing this historical area?

This project proposes a Sialk Cultural-Archaeological Center with a two-fold purpose: a carpet-weaving center celebrating Kashan's mastery of the craft, and an archaeological research and resource station that revitalizes early Persian design and landscape through further exploration and preservation of artifacts.

Brick has an enduring relationship with Iranian architecture due, in part, to its high-heat capacity, a trait particularly beneficial for the extreme day/night temperature fluctuations of desert cities. Taking a sustainable approach, this project fuses architecture with structure through reinforced brick walls and wave-like roof surfaces. Parametric brick design blurs the boundaries between outside and inside by integrating qualities such as introversion and extroversion, façade and space, transparency and solidity, and natural and artificial lighting, thereby offering a new definition of transparency without sacrificing privacy, while also softening natural-light intensity.



1-6: Wave-like roof structure creates shade which is an important design factor in desert climate (1); Design Process (2); Main Entrance (3); Parametric brick surfaces create a sense of privacy and reduce light intensity (4); Preliminary sketch (5); private courtyard (6).

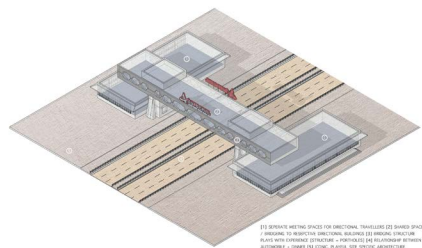


IMAGINING THE MARY- LAND BRIDGE AS AN EVOLVING ARCHITEC- TURE

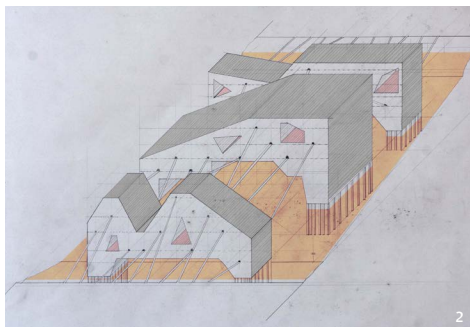
A bridge is intended to reconcile or form a connection between two things, from an overturned log crossing a stream to complex structures across an ocean. Bridges are defined first as a means of passage [transportation infrastructure], yet through history we have seen how inhabited bridges have developed from an organic need to form real connections between communities. While engineers see bridges as the ultimate structural achievement, architects and designers work to program them successfully into the urban fabric, both present and future. What is an architect's place in turning every bridge into an opportunity of public engagement and reciprocal action? How can we combine the act of passage and occupancy?

In Winnipeg, rivers and rail lines divide our city. The bridges which span them have shaped the communities on either side. Many times these communities benefit from the influx of funnelled traffic, both automobile and pedestrian. Yet, there exists a tension between the conflicting cultures of various social demographics. Sites that fall within the public realm host these relationships, and are the means for accessible use and free expression. How do we transform infrastructure to increase the the presence, and strengthen the impact, of public space?

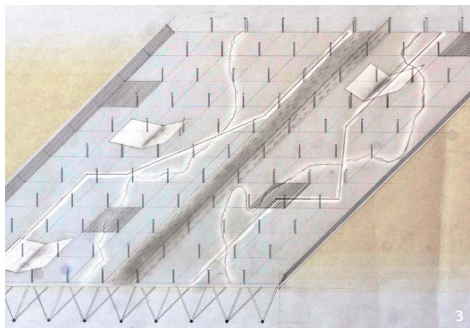
The Maryland Bridge in Winnipeg is a major site of this activity. The proposal for this project is a reconfiguration of the existing bridge with new interventions that promote access to the construction process, and carry forward structures and materials creating an evolving site. This thesis is an exploration of how to give the bridge space back to the public, and help them feel connected to the place that should belong to them.



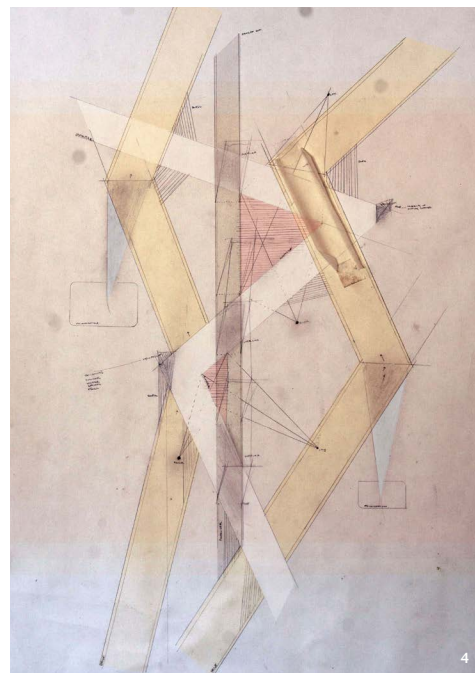
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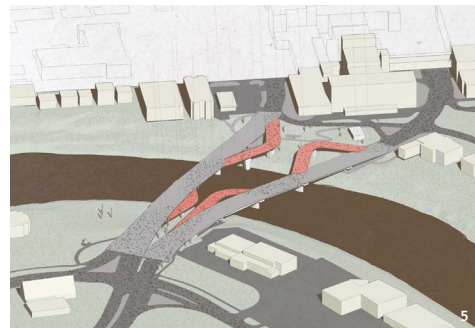
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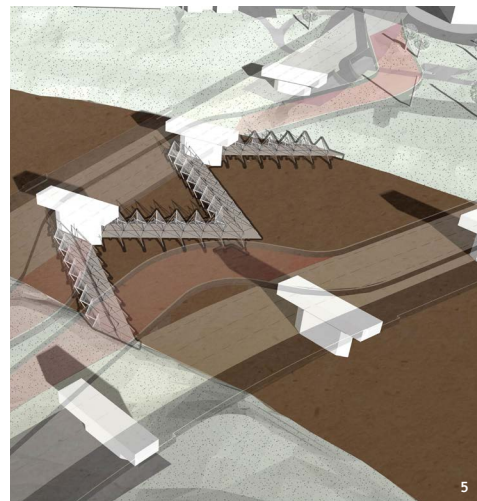
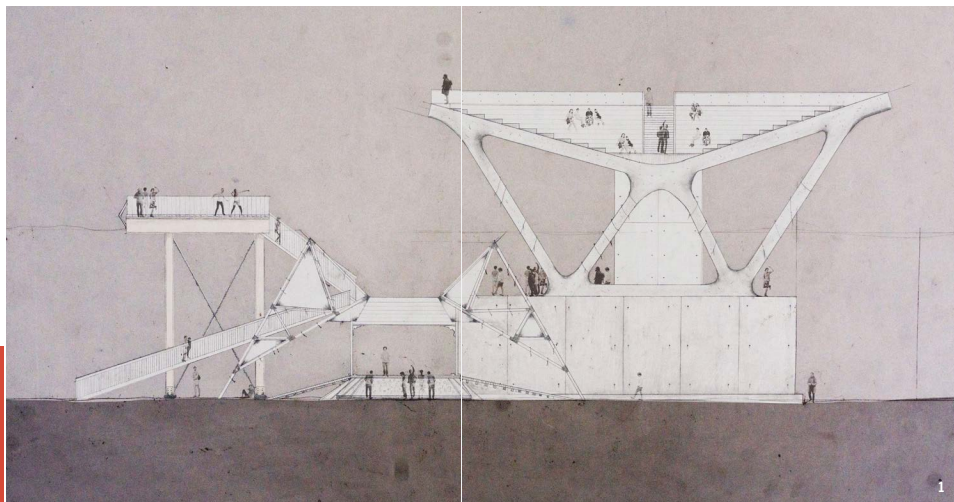


4



5

1-5: Construction evolution section drawing (1); Bridge plan drawing (2); Bleachers perspective (3); Sukkah perspective (4); Garbage weir perspective (5)

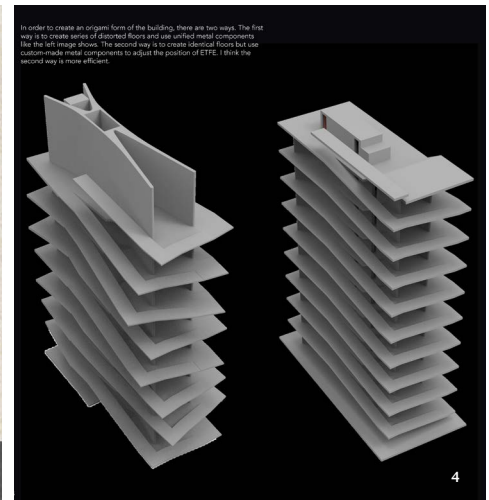
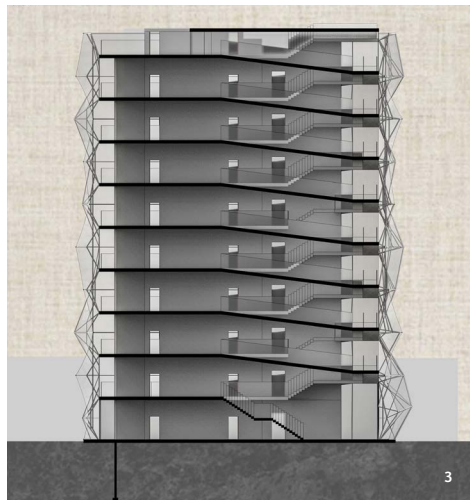
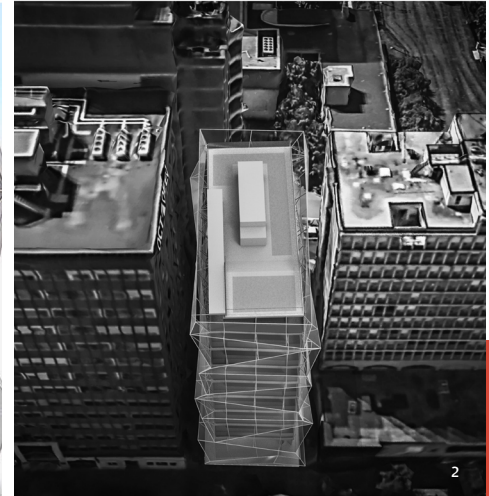


THE BUILDING TELLS EVERYTHING -- THE CRITICAL RELATIONSHIP BETWEEN ARCHITECTURE AND ADVERTISING

Starting learning from the expression ways of advertising in ancient China to nowadays expression in different cities, and through the research of different related precedents, these can help me to find a suitable way that integrating advertising and architecture.

Beginning with the fashion brand of "Issey Miyake", I analyze and look into the feasibility of designing a small experience store for "Issey Miyake" in Toronto Yonge-Dundas Square. Basing on the brand's history, features, and audience, the design of this small experience store should not only accommodate the selling products but also is a different form of advertising expression and communication. The brand and architecture become integrated during this process. Each of them does not exist in isolation from another, hence architecture is an abstract indication of advertising.

Through the design of a small experience store for the brand "Issey Miyake", it is necessary to extract the essence and features from it and then put me into a larger scale architecture design -- Issey Miyake flagship store. In this flagship store, I want to show people that: What advertisements bring to them is no longer dirty and messy blocks or heady and smothered billboards, but information areas that can exist in harmony with buildings and even cities. Through people's subconsciousness and feel of brands or product itself, the function of advertising is reflected in architecture in an unintuitive but obvious way.



1-3: Conceptual drawings (1); Mass rendering (2); Floor typology diagram (3)

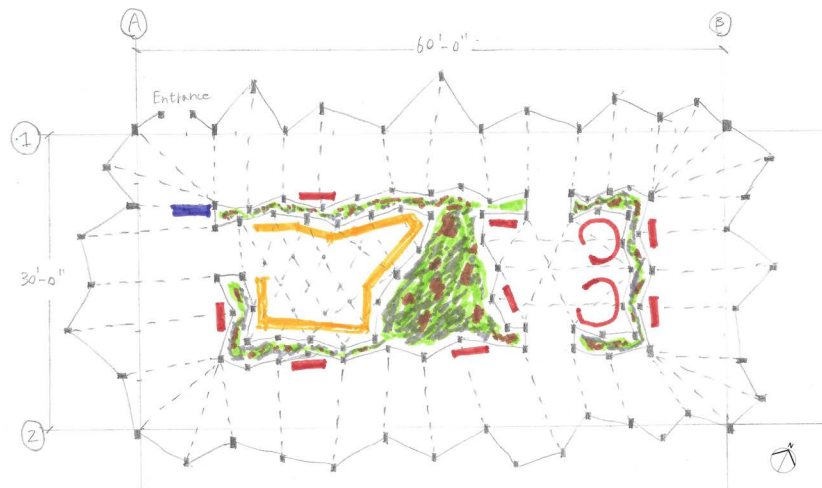
Iteration 2 shows that the walkable space is 60 feet times 30 feet and the small black rectangles suggest where the steel bars touch the ground, the lines connect them are potentially ETFE and the dashed lines are the vaults above. The spaces concave outward can be used to display products according to the size of the space. The yellow area is the shelves in the storage room, and the two circles are fitting rooms. Between the storage room and the fitting room, there will be an exterior small garden.



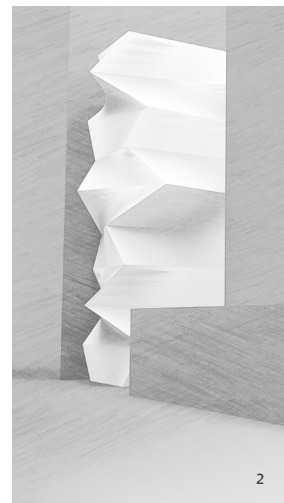
Design Process 1



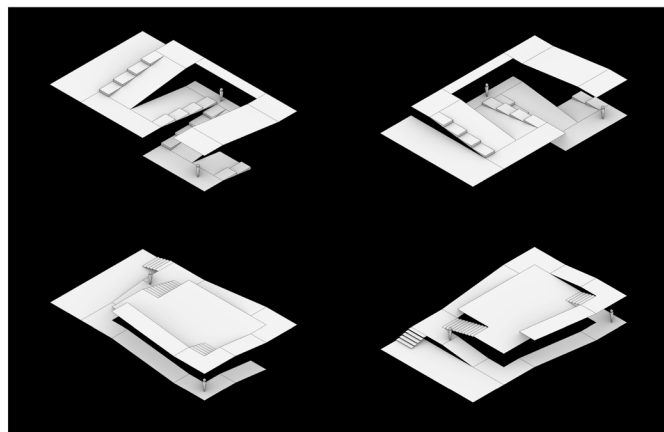
Design Process 2



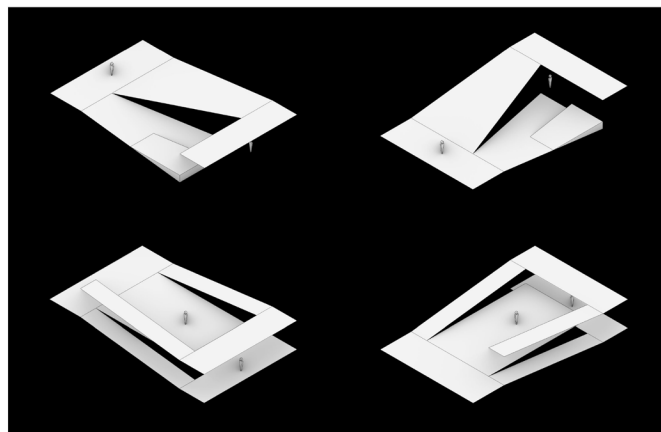
Design Process 3



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Iterations



Iterations

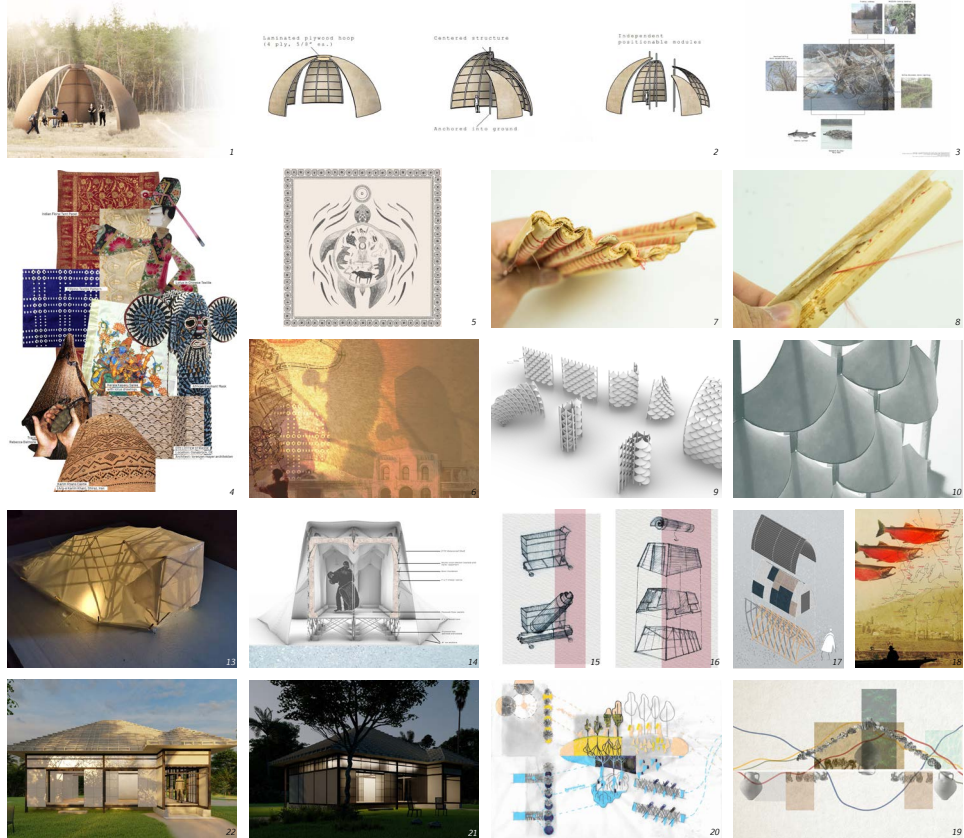
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Shawn Bailey

STUDENTS: Saad Ahmad, Jonathan P. Bailes, Alex P. Bartmanovich, Romilie Calotes, Jayme Contant, Lucas A. Druet, Paul Hanbury, Jaden D. Janzen, Brendan G. Klassen, Andria Langi, Michele Palmieri, Wilrose Pingol, Luxmy Ragunathan, Coral M. Ross, Lucas R. Stringer, Alexa R. Thiessen, Alan Vamos

TECHNOLOGY AND INDIGENOUS KNOWLEDGE

Students will speculate how Indigenous knowledge, art, and technique can influence contemporary processes of making architecture. The objective is to introduce, through an architectural lens, a symbiotic way of knowing and crafting that adopts current practices and technology steered by Indigenous approaches and thinking. The design research will be guided by a series of short lectures, individual and group discussions. Through analogue and digital techniques, we will tease out the concepts behind the work related to architecture and cultivate a speculative design intervention.



IMAGES: 1-2) Alex P. Bartmanovich; 3) Jonathan P. Bailes; 4-6) Andria Langi; 7-8) Romilie Calotes; 9-10) Lucas A. Druet; 11-12) Jaden D. Janzen; 13-14) Paul Hanbury; 15-17) Lucas R. Stringer; 18) Luxmy Ragunathan; 19-20) Wilrose Pingol; 21-22) Saad Ahmad; 23-24) Alexa R. Thiessen; 25) Alan Vamos.

STUDENTS: Tali Budman, Romilie Calotes, Austin Dorn, Ralph Gutierrez, Kevin Jo, Brendan Klassen, Andrew Lawler, Nicole Luke, Darian McKinney, Royce O'Toole, Michele Palmieri, Stacey Roesler, Zahra Sharifi Mehrjardi, Sam Stewart, Lucas Stringer, Cleo Syverson, Sean Vandekerkhove, Tong Yue, Mike Zhang

ADVANCED TECHNOLOGY TOPIC

Lancelot Coar &
Jason Hare

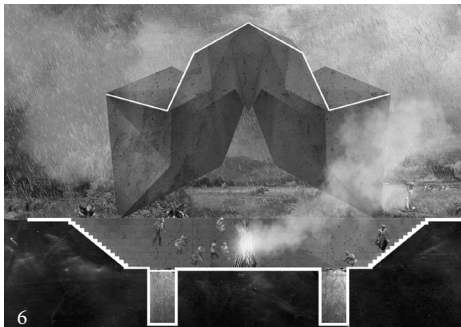
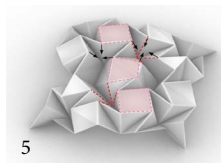
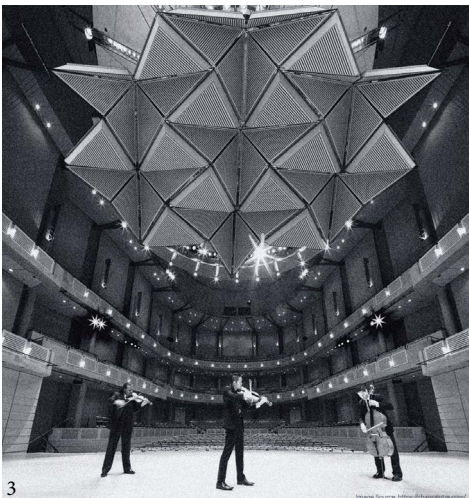
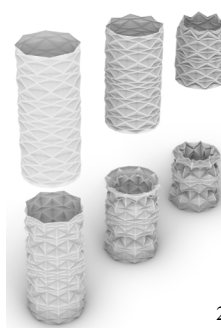
CORRUGATIONS: EXPLORING DIGITAL CONGRUENCY IN DIGITAL AND PHYSICAL WORKFLOWS

The use of tools in the production of architecture, be it hand, industrial, digital, or automated, are extensions of our ability to shape materials and produce assemblies. However, tools themselves are not the key to working more efficiently or effectively, workflows are.

2 In this course, we explored how the use of both digital and physical workflows in the creation of origami structures can be understood as a synthetic design process resulting in the better understanding of the nature of folded-plate structures. We explored this ancient Japanese folding technique to use digital parametric modeling software and physical manual folding techniques to speculate on design propositions developed by each student.

Students used Rhinoceros and Grasshopper to develop models and scripts that emulate the physical behaviors of fabric and paper and the actions of folding required to generate a desired origami form. At the same time they studied techniques of paper manipulation and the implications that particular folds have on the form and properties of the folded structure.

The resulting design propositions reflect a curated workflow between both realms of working - between pixels and paper, and invited a new way of reflecting on the potential contributions each medium can contribute to each other, resulting in a singular approach that learns from both.



IMAGES: 1) Classroom proposition, Michele Palmieri; 2) Iterative digital folding study, Sean Vandekerkhove; 3) Suspended ceiling system proposition, Lucas Stringer; 4, 5) Manual and digital folding study models, Romilie Calotes; 6) Ceremonial shelter proposition, Ralph Daniel Gutierrez.

TOPIC ADVANCED TECHNOLOGY

Ted Landrum

The word masonry comes (via French & German) from Old English mecean, meaning 'to make'. The word 'make' derives from Greek maza, a kneaded mass (like bread or clay), and kindred etymons for 'mate' & 'match'

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 and 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 therefore 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. Special thanks to Zoom Guests: Brad & Brian Gebhardt (RRC), Evelyn Tickle (Grow Oyster Reefs), Joe Dahmen (Watershed Materials, UBC), and Shayne Campbell (Argyle Museum, Manitoba Brick Collection).

STUDENTS: M2: Nicole Luke, Reanna Merasty M1: Akash Bali, Brandon Bunkowsky, Jayme Contant, John Gray, Jaden Janzen, Johnathan Lum, Stacey Roesler, Cleo Syverson, Mike Zhang

Zoom Meeting



Chaco Canyon Pueblo Bonito



IMAGES: Top Left) Zoom Guests: Joe Dahmen, Evelyn Tickle, Brian Gebhardt; Top middle & right) M1 & M2 Students; Lower Image) Chaco Canyon view, presented by Reanna Merasty.

STUDENTS: M2: Mandy Hiltz, Yang Peng, Chenqu Zhao; M1: John Gray, Paul Hanbury, Jaden Janzen, Kevin Jo, Sara Mahabadi, Zahra Sharifi Mehrjardi, Meghan Pratt, Coral Ross, Emma Ross, Alexa Thiessen, Emily Will, Tong Yue

ADVANCED TECHNOLOGY TOPIC

Ted Landrum

"Architecture houses all techniques. Electricity sheds light on them and animate them."

- Francis Ponge

"What light makes casts a shadow and the shadow belongs to light..."

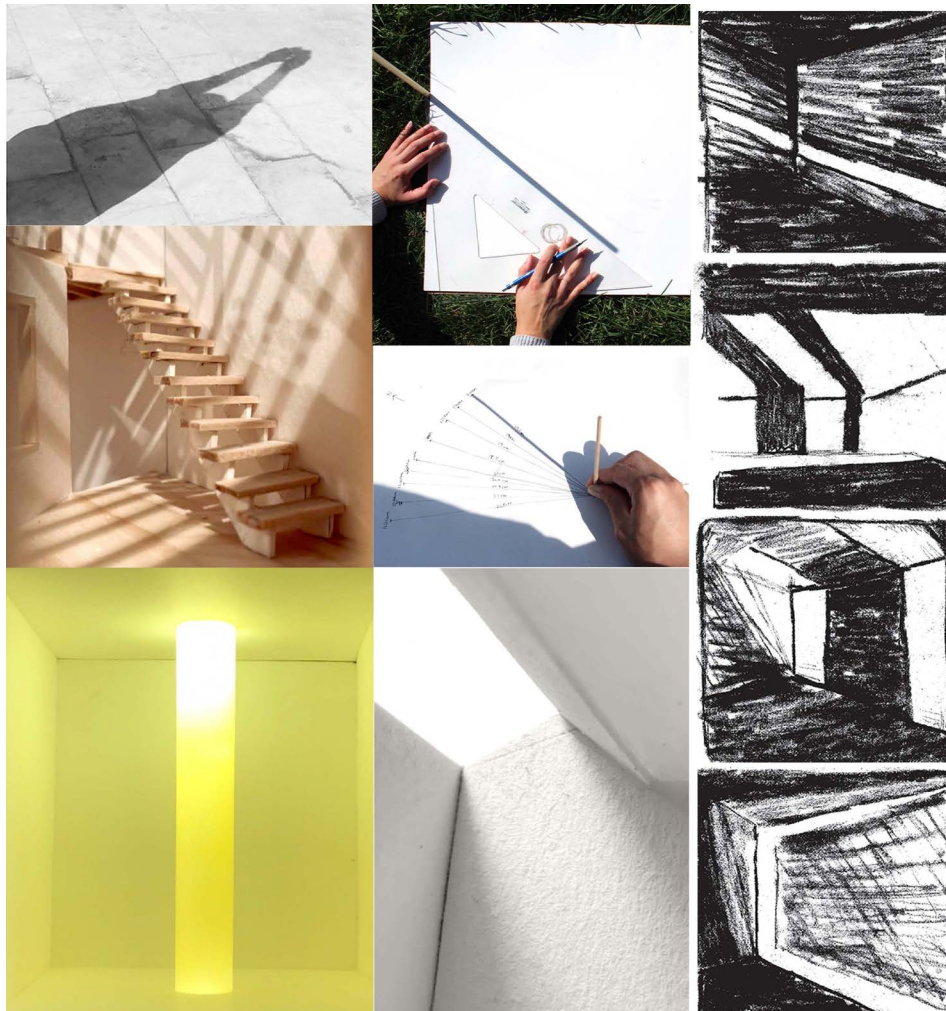
- Louis Kahn

ARCHITECTURAL LIGHTING & SHADOWS

Lighting is one of the most interesting, poetic and fun facets of architecture. Slight changes in light dramatically transform the atmosphere, perception and experience of a place. Without light we simply cannot see. Without the depth and definition of shade and shadow, we cannot perceive edges, volumes, textures, colors, nor any visible quality of surface, space or place. Further, 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. 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. 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. 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 scale models of lighting conditions, studied through careful iterations and photography. Students gather highlights from all they've learned in a final Light and Shadow Book, illuminating the spectrum of their discoveries.

Special thanks to: David Kressock (LM-Architects), Mark Pauls (MB Hydro), David Isaac (Indigenous Solar Power expert), Warren Carther (Winnipeg artist).



IMAGES: (left column, top to bottom): Zahra Sharif (solar yoga), Jaden Janzen (light model), Chenqu Zhao, (left column, top to bottom): Zahra Sharif (solar yoga), Jaden Janzen (light model), (right column): Emily Will (sketch studies for lighting experiments and model).

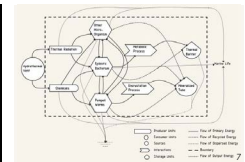
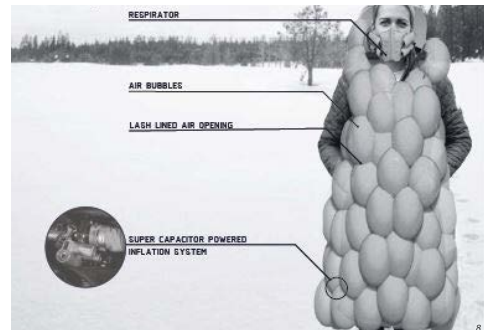
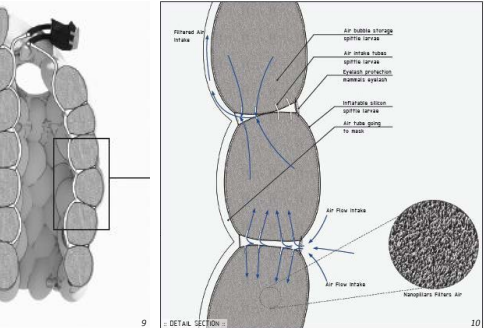
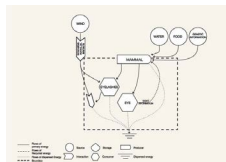
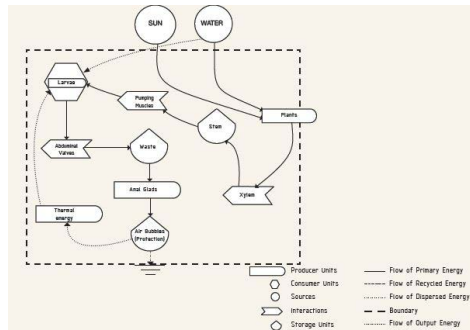
INTRODUCTION TO BIOMIMETIC DESIGN

"The good news is that wisdom is widespread, not only in indigenous peoples but also in the species that have lived on Earth far longer than humans."

J. Benyus, 1997. Biomimicry: Innovation inspired by nature.

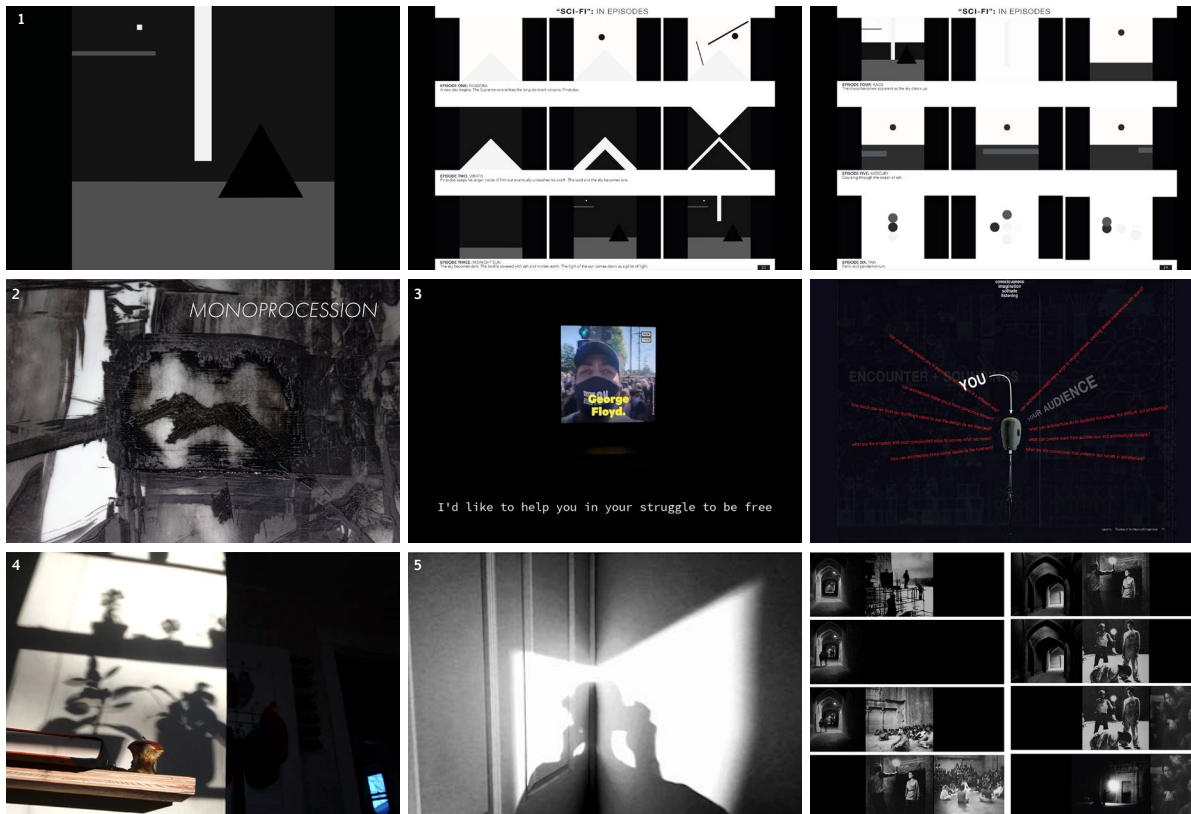
This is an introductory level course where students explore the principles of biomimetic design and their application to design projects. Students learn about and discuss current methods and tools used in biologically inspired design with a special focus on ecological systems. The ideas of systems dynamics and complexity are explored using tools from ecological engineering and environmental fields, and implemented in a self-directed biomimetic project.

The combination of tools from different disciplines, together with a balanced access to existing databases and publications on biology, ecology and architecture, comprises a powerful and effective package that enhances students' creativity while addressing compelling environmental issues.



IMAGES: 1-2) Larvae produce foam : Meadow Spittle Bug; 3) Energy System Diagram for Meadow Spittle Bug; 4) Mammal Eyelashes; 5) Energy System Diagram For Eyelashes; 6) Pompeii Worms; 7) Energy System Diagram for Pompeii Worms; 8) MALL'S Isolation And Protective Gear; 9) Section; 10) Detail Section.

THEATRES OF ARCHITECTURAL IMAGINATION



Is architecture a performing art? In what ways does architecture perform? What is architecture's dramatic potential? How have remote practices affected our imagination of and desire for embodied performances?

Framed by such questions, this experimental seminar explored reciprocities of architectural and theatrical imagination, uncovering influences of theatrical arts on architectural history, theory and design.

Students studied dramaturgical practices of exemplary theatre artists, together with select words and works of architects who make and think theatrically, while rehearsing architecture's performative potential. In addition to seminar presentations and interpretive research, students staged multi-media Entr'Actes (2-minute videos), some of which are featured at the UQAM Design Centre online exhibition, as part of the international 2021 symposium on Theatres of Architectural Imagination:

Entr'Actes: 1) Ralph Gutierrez, *Sci-Fi*, inspired by abstract spatial-aural choreography of Einstein on the Beach and Manhattan Transcripts; 2) Sean Vandekerkhove, *Monoprocession*, inspired by performative architectural drawings and W.Kentridge's *Journey to the Moon*; 3) Alixa Lacerna, *50 Ways Between Theatre and Architecture*, developed through research on performative soundscapes of Complicité's *Encounter*, John Hejduk's architectural Soundings, and social injustices; 4) Cleo Syverson, *773*, based on study of "Unscripted Performances" and Robert Lepage's 887; 5) Zahra Sharifi, *Can You Hear the Light?* developed from analysis of *Orghast* by Peter Brook and Ted Hughes.

<https://centrededesign.com/entractes/>

Jason Hare

SEND & RECEIVE

CRAFTING DIGITAL LITERACY

This interdisciplinary course uncovered and explored the theory and practice of 'making', of which is rooted in the capacity to augment our collective environment through physical and digital models. These models;

being associated with the design of products, furniture, architectural elements, land formations and ecological systems, rely upon effective modes of messaging to ensure the act of communication is clear between all parties.

Literacy plays a large role in the ability to communicate effectively. This course will unveiled a root language of digital space and worked to bridge the divide between physical and digital acts of 'making' over a distance. Workshops, remote spatial gatherings and input sessions, made possible through a range of digital platforms, acted as a staging ground for the communication, visualization, fabrication and material practices towards the construction of a unified model, aggregated via techniques of critical craft. A big thanks goes out to the curriculum committee for supporting this interdisciplinary course for the Faculty of Architecture.

Can the digital design of architecture be considered a craft, even if there is no haptic element beyond the lowering of keys and the clicking of mice? Does the notion of craft depend on the thinking hand, to use Juhani Pallasmaa's eloquent term? It is clear that the origin of craft is dependent on manual dexterity, but it is also generated by a desire to communicate cultural ideas.

*- Michael Stacey
Digital Craft in Making of Architecture*



IMAGES: 1) Desjarlais.D | Laser Sintered Nylon 'feathers' 2) Hammond.M | Cast Poly and organic matter 3) Fajardo.J | Laser sintered nylon branching body 4) Stewart.S | Bent veneer fins 5) Kliever.B | Laser cut paper body 6) Barrion.A | Vacuum formed paper Petals 7) Yue.T | SLS Nylon 'aquarium body' 8) Idafum.C | Laser cut plywood stack 9) Reza.S | Robotic extrusion of clay body vault 10) Send and Receive : Crafting Digital Literacy | Digital model assembly.

Peter Hargaves, Lawrence Bird, Colleen Fraser, Andrea McDougall, Michelle Perche

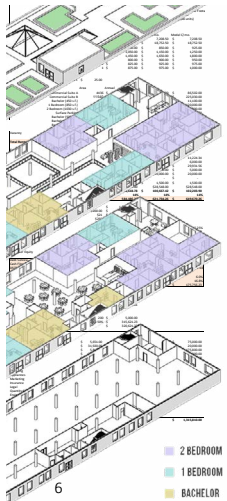
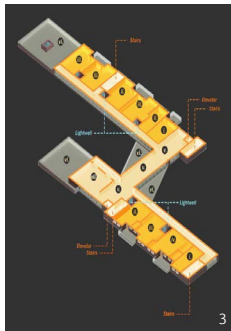
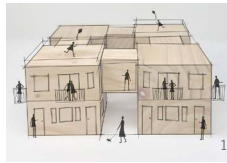
NEW MODELS FOR ELDER HOMES

COVID-19 has exposed a dire need for new models of senior housing. In this course students developed new designs for homes to support aging in place, in an interdisciplinary process led by Sputnik Architecture.

Rather than a conventional design studio, the course was run as a design lab, drawing on the skills of all disciplines represented at FAUM, and on the knowledge of a group of "Elders." The Elders were a dozen friends and acquaintances interested in redesigning their own spaces, some with plans to create their own community for aging in place. They took part in class and design reviews, provided feedback on the designs, and communicated to students their experience of living with age. Graduate architecture, interior design, and landscape students took part in the class; architects, interior designers, a city planner, and a sociologist from Sputnik taught it collaboratively.

Students studied current models for co-housing, co-living, and senior housing. They identified promising sites in neighbourhoods appropriate for aging-in-place. They prepared functional programs, developed *pro formas* to provide a path to financial sustainability for their project, created massing models, planned interior spaces, and laid out community landscapes. By the end of the course each student had developed a design that worked with its urban location, provided an appropriate gradation of public, shared and private space, and was designed to work for aging in place.

While each student selected their own site and produced their own project, an emphasis was put on collaboration and learning from other disciplines. Throughout, key goals included demonstrating how different disciplines can work together with mutual respect; and communicating the human impact of design.



IMAGES: 1) Jayme Contant; 2) Emily Barber; 3) Brendan Klassen; 4) Laurel Cowley; 5) Marissa Jampolsky; 6) Corey Harrison.

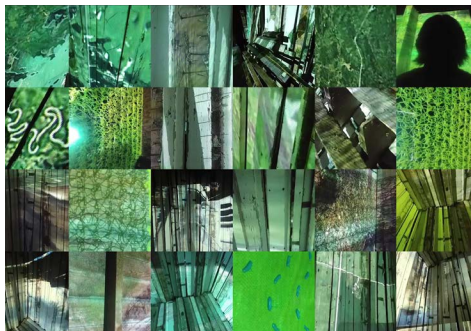


We missed the workshop during the pandemic! Congratulations and THANK YOU to Rick Finney and Keith Millan who both retired during 2020-2021. (This picture from 2018 by Lisa Landrum).



SHAWN BAILEY
 ASSISTANT PROFESSOR,
 INDIGENOUS SCHOLAR,
 ARCHITECT
 B.ENV.D., M.ARCH., MRAIC, OAA, MAA

Shawn Bailey is Métis, a native of Northwestern Ontario and was raised on Lake of the Woods. Being situated within a rich natural context equipped him with knowledge and respect towards nature. Shawn is a registered architect with the Manitoba (MAA) and the Ontario (OAA) Association of Architects. He is also a member of the Royal Architectural Institute of Canada's (RAIC) Indigenous Task Force (ITF) and the MAA's Equity and Diversity committee co-chair. Shawn has recently opened an Architectural Practice named Grounded Architecture. His vision is to guide the practice to integrate ecological focuses grounded in reciprocity and initiate a cultural shift in architecture. His research interest focuses on developing design processes and techniques that connect to the land by including Indigenous ways of knowing. From this viewpoint, Shawn is investigating architecture's ecological role in contemporary society. In other research areas, Shawn is collaborating with elders, health professionals, knowledge keepers, and grassroots initiatives to help address widespread Northern communities' housing issues across Northern Manitoba and Northwestern Ontario. In this work, Shawn explores how Indigenous Knowledge can impact modern design thinking while empowering the community.



LAWRENCE BIRD
 SESSIONAL INSTRUCTOR
 PHD MSC BARCH MAA MRAIC MCIP

Lawrence practices in architecture, planning and media art. In design practise he is most interested in ensembles of buildings and urban design; he's captivated by "the life between buildings," and the way meaning is embodied in urban space and landscape. He is privileged to work at Sputnik Architecture on architectural and planning projects connecting art, culture, and community.

Lawrence's creative research focuses on space and its representation. His work frequently addresses the interplay of materials and projected image, as well as the tension between our personal experience of the city and our battle as citizens with the political and economic forces which confine us. The image above documents his research/creation project Matter of Image, funded by the Canada Council for the Arts.

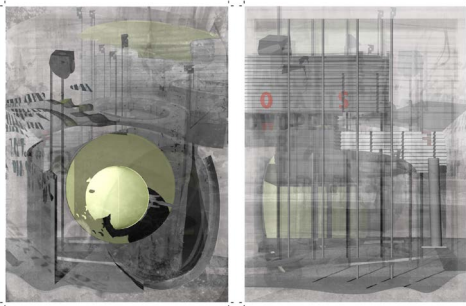
Lawrence has worked and taught in London, Japan, Montréal and Winnipeg. He writes on urbanism, architecture and art in a number of fora including *Canadian Architect* and *Leonardo*. He was a co-author of *Warming Huts: a decade + of art and architecture on ice* (Dalhousie Architectural Press, 2021).



LANCELOT COAR
 ACTING HEAD, ASSOCIATE
 PROFESSOR
 , B.S. ARCH. ENG., B.S. CIV-
 IL. ENG.

Lancelot teaches architecture design studios and technology courses in the Department of Architecture, and advises graduate level design thesis students. In his design studios, Lancelot has led numerous community-based design studio projects with rural, urban and indigenous communities. More recently, several of his studios have focused on the housing crisis facing First Nations communities in Manitoba and Nunavut. These projects have resulted in community-led design studios proposing a housing design strategies that prioritizes the voices and experience of community members to promote design, material and construction sovereignty in First Nations communities.

At the Centre for Architectural Structures and Technology (C.A.S.T.) Lancelot investigates how physical parametric behavior in building materials can provide a productive link between design and construction efficiencies, resulting in emergent architectural languages. Currently, Lancelot is a Ph.D. candidate in the Department of Architectural Engineering at Vrije Universiteit, Brussel researching bending active frames and fabric formwork structures utilizing principal stress lines.



CHAD CONNERY
SESSIONAL INSTRUCTOR
B.ENV.D. M.ARCH

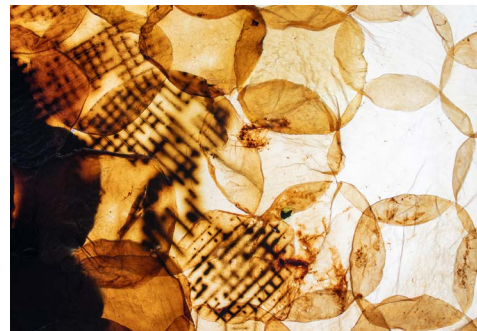
.Often collaborating with Anca Matyiku under the research-creation practice MOTE Projects, Chad's work is predisposed to playful interpretations of mundane phenomena and motivated by the intersection of material temperaments and processes with storytelling and fiction. MOTE's architectural research work has been featured in gallery exhibitions, journal publications, and at conferences in Canada, the US and the UK. Chad previously practiced with DIN Projects and Al Coppinger Architect.

In 2020 MOTE's drawing work was presented as *Recreative Distances* as part of the Drawing On Symposium hosted by the Architecture by Design Program at the Edinburgh School of Architecture and Landscape Architecture. In 2018 Chad was invited to collaborate with RAW Gallery and Wolf from 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.



HERBERT ENNS
PROFESSOR
B.E.S. M.ARCH. MAA MRAIC

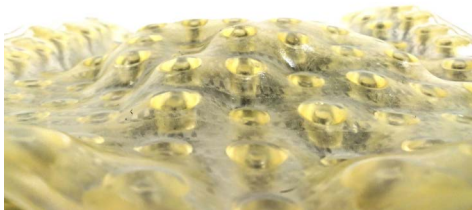
Professor Enns has published widely on spatial perception, cultural identity and modern design. His research includes regional culture, landscape, climate change and place. He is active in practice. Some recent examples are the MPC Staff Training Centre; the River House, including 11 unique products; the Lake House at Clearwater Bay; carbon neutral housing units for the Experimental Lakes Area; a Memorial Gathering Space for Assiniboine Residential School Survivors; and a seasonal residence on Dominique Island, Shoal Lake. Prof. Enns has participated in interdisciplinary projects, experiments and installations involving Astrophysics; Human/Computer Interaction; Music; Sociology and Indigenous Relations; and Spatial Audio. He was Chair of the Editorial Board of MOSAIC: A Critical Interdisciplinary Journal for 17 years (Dr. Dawne McCance, Editor), and was Director of the CISCO Innovation Centre for Collaborative Technologies at the University of Winnipeg. Professor Enns is a former Head of the Department of Architecture and a Visiting Fellow to the University of Texas at Austin Centre for American Architecture and Design - curating exhibitions, teaching Master's level studios and publishing Mining Location J.O.180: Experimental Buildings at Shoal Lake. He recently chaired the Program Review of the School of Architecture and Landscape Architecture (SALA), UBC. He served on the Winnipeg Art Gallery Board of Governors for six years, was a member of the Architecture Jury for Quamajuq, the Inuit Art Centre, and continues to serve on the Building and the Works of Art Committees.



MERCEDES GARCIA-HOLGUERA
ASSISTANT PROFESSOR
B.ARCH., M.ARCH., PHD., LEED AP BD+C,
COAL (SPAIN)

Dr. Mercedes Garcia Holguera is a registered architect from the Polytechnic University of Madrid in Spain, and she has worked at leading architecture firms in Canada, Mexico and Chile before joining the Department of Architecture at the University of Manitoba in 2019. She is also a LEED AP BD+C since 2009, and she received her PhD in Bioresource Engineering at McGill University in 2018 where she coined and developed the ecomimetic method, an ecologically inspired design approach to optimize resource use in buildings.

Mercedes' research follows a transdisciplinary approach to environmental building science that is inspired by Nature's principles as described in biomimicry and biomimetic design theories. Biomimetic or biologically inspired design emulates Nature's successful strategies in human constructs and has the potential to contribute to climate change adaptation and mitigation, as well as increase the catalogue of environmental solutions in architecture.



JASON HARE
FABLAB MANAGER
B-ED M-LA

Jason Hare works to embody the meaning of process based research. Through action, Jason allows process to manifest itself as highly articulated prototypes that marry the relationship between the digital and the physical realms. With a master's degree in Landscape Architecture, focusing on techniques and tools that assist in the physical construction of landscape assemblages. Jason continues this research as one of the founding members and current manager of the FABLab within the Faculty of Architecture. Continually exploring and participating in digital-to-physical and physical-to-digital methodologies of materialization. Jason looks to share this embodied knowledge with students, peers and colleagues towards crafting a humane form of digitally literate. Jason continues to pursue this direction in the field of digital craft by engaging with vested parties who share a common interest in establishing a built environment with generational stability focused on material systems.



PETER HARGRAVES
SESSIONAL INSTRUCTOR
MARCH (OREGON) MAA OAA MRAIC

Peter is the founder of Sputnik Architecture Inc.. He has worked in several large North American centres including Portland, Toronto, Montreal, and for the past decade Winnipeg, on projects ranging from health care to education, housing, community services, and theatre. Current key works include the Canadian Fossil Discovery Centre (conceptual design above); and Riverwood House, a mixed-use project serving people transitioning from homelessness and addiction to stable housing.

Peter is dedicated to the creation of art and the fulfillment of a social mission. He is a sculptor in his own right, working in metal and ice, but also a facilitator of the artistic and social dreams of others. As a result he has taught extensively, working with students and teachers on design and construction of many of the Warming Huts, an annual event he initiated. The Huts have also led him to collaborate with creators as diverse as Luca Roncoroni, Tanya Tagaq, Guy Maddin and Anish Kapoor. Peter has also created ice stages for Royal Canoe and the Winnipeg Symphony Orchestra's New Music Festival. He was a co-author of *Warming Huts: a decade + of art and architecture on ice* (Dalhousie Architectural Press, 2021).



LISA LANDRUM
ASSOCIATE DEAN RESEARCH
ASSOCIATE PROFESSOR
PH.D. M-ARCH2 B-ARCH FRAIC MAA AIA

Lisa is dedicated to advancing social justice and cultural meaning, while strengthening links between academia, practice and the public. Her creative scholarship on the history, theory and potential of architectural agency is widely published, including in the books: *Narrating the City* (2021); *Canadian Modern Architecture* (2020); *Reading Architecture* (2019); *Confabulations: Storytelling in Architecture* (2017); *Chora 7* (2016); *Filming the City* (2016); *Architecture's Appeal* (2015); *Economy and Architecture* (2015); *Architecture as a Performing Art* (2013); and *Architecture and Justice* (2013). Recent publications include the CAFÉ Report (Sept. 2020), on the SSHRC-supported Canadian Architecture Forums on Education, which she led; and "Tableaux Vivants: Tables and Stages of Architectural Striving," in the *Architecture and Culture* journal (2021). In May 2021 she curated an exhibit of 2-minute Entr'Acte videos (UQAM Design Centre); and co-chaired the international Frascari V symposium on Theatres of Architectural Imagination, inspired, in part, by Marco Frascari's drawing of Occasio. Dr. Lisa Landrum is a registered architect in New York and Manitoba, an award-winning educator with experience in Canada, US, Europe and China, and former (2016-19) Associate Head of the Department of Architecture.



TED LANDRUM
SESSIONAL INSTRUCTOR
B.SC. B.ARCH. M.ARCH2.

Ted Landrum began teaching architecture in 2006, after a decade of architectural experience in NYC, Montréal and Ottawa. Ted's teaching is influenced by diverse interests: architecture, theatre, film, poetry & criticism. Ted has collaborated with Lisa Landrum on many seriously-fun experiments in drama & architecture, including 'group costumes' dramatizing the social body: Giant Tongues, Giant Brain, Winged Eye/Mouth, Open Hand. His primary mode of research is 'archi-poetry'. Publications include Midway Radicals & Archi-Poems (Signature Editions, 2017), shortlisted for the Lansdowne Poetry Prize, and two collaborative poetry chapbooks: Room to Room: Poetry & Architecture in Conversation (Arkitexwerks, 2018), and Table for Four / Eccentric Crops (JackPine Press, 2020). Ted's writing has appeared in Brooklyn Rail, CV2, On Site review, Lemon Hound, American Society for Aesthetics, Warehouse and Partial Zine. Find his archi-poetry archive at ubuloca.com. Ted helps curate Winnipeg's Architecture + Design Film Festival and runs the ArchiShorts Film Contest (adff.ca)



NEIL MINUK
ASSISTANT PROFESSOR
M.A.A. B.A. M.ARCH. RCA

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.

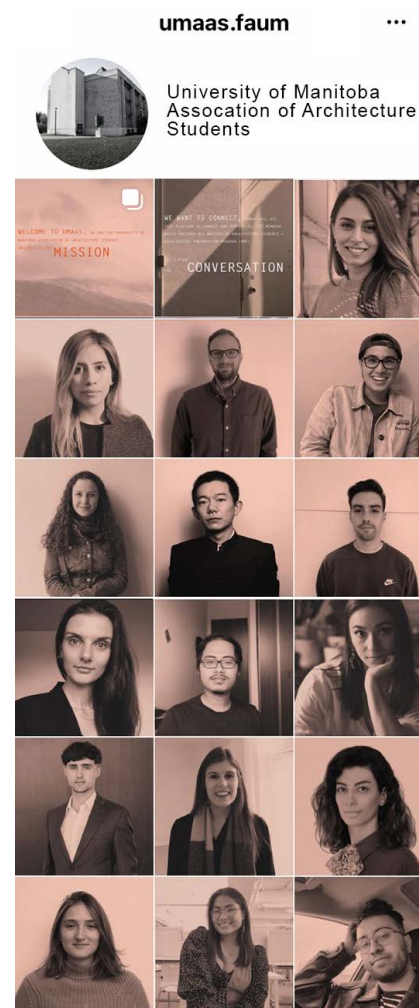


RALPH STERN
PROFESSOR
B.ARCH. DIPL.-ING. MAA. RA.

Ralph Stern is a tenured, full professor in the Department of Architecture and served as Dean of the Faculty of Architecture (2010-2015). 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. As an architect, Ralph Stern worked extensively in New York and Berlin.

An accomplished educator, he has 25 years of teaching experience in the United States, Europe, and Canada. He was a Visiting Fellow at the Bauhaus University Weimar (2016), and served as Special Advisor on Internationalization for the Faculty of Architecture (2017-2018). He has lectured at Harvard, Yale, Columbia, M.I.T., Cambridge University, The University of Chicago, The Central European University (CEU), The American Academy in Rome, The Charles University (Prague), and the London School of Economics (Cities Program) among many other venues.

The Guatemala Studio (2019-2020) continues his research in the fields of Indigenous design, social justice, memory, and identity.

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Alluvium: Water, Habitat and Community - An award-winning submission to national design competition: Ontario Place: Call for Counterproposals, by Tali Budman (M.Arch thesis student in the Department of Architecture), Connery Friesen (M.Arch graduate, 2020), Ryan Coates (Master of Landscape Architecture graduate, 2017); and Ryerson University Master of Planning student Paul Arkilander. More on UMToday: <https://news.umanitoba.ca/national-recognition-for-alluvium-design/>