

Technology Seminar

ARCH 5298

Dalhousie University School of Architecture, Summer 2024.

Instructor: Roger Mullin e: roger.mullin@dal.ca

Time: Tuesday 9:30 - 12:30. Location: Rm1208.

Performative Prototypes and Permanence

Calendar Description:

This course focuses on an advanced topic in architectural technology. The topic changes from year to year. It may emphasize materials, environmental strategies, or building details.

The course is primarily field based and advances the technological (and architectural) content of an existing prototype through material detailing, documentation, construction and installation. The design-build work will realize the efforts of a collaborative multi-year, [Etuaptmunk](#) approach that supports Indigenous perspectives in course work.

Note:

ARCH 5298 is a 3 credit hour course and much of the associated work will involve fabrication and assembly work completed in shop spaces and on a construction site in Millbrook First Nation. Course participants must adhere to work place safety requirements (eg. safety attire and respect for tools, equipment and all parties involved).



Framing materials harvested and ready for assembly on site in Millbrook First Nation. See: [community website](#)



image: Architecture AUB students from the DI-LAB (Design Impact Laboratory)

Learning Objectives

Through Design-build work, students will develop a working knowledge of materials and architectural detailing implementing existing techniques and innovative variations thereof.

Students will learn about the relationship of part to whole (detail to building) and how to conceptualize and develop material details according to performance criteria.

The guiding principles of [Etuaptmunk](#) will support opportunities for collaboration with Indigenous community members, traditional knowledge holders, event organizers and other advisory committees to the games.

Additional Course Description:

The work of the course will operate in two modes:

Field research¹ focuses on context and is grounded in real life rather than abstracted and aloof. The reality of learning about and supporting Indigenous perspectives in our architectural approach is paramount. Previous course work and collaborators will continue support and guide our methodological approach.

Fieldwork² is a term commonly used to describe research associated with a particular site, place or location. A *near* site will see the prototype and details mocked up and refined within shop spaces in Halifax. A *far* site moves the prototype into a permanent install (a classroom) in the community of Millbrook First Nation.

Utilizing *Etuaptmunk*, the theoretical field is then expanded intersecting Western and Indigenous thinking in the context of discourse, action and reflection. **Etuaptmunk** is a Mi'kmaw word meaning Two-Eyed Seeing. With one eye, we view the world through Indigenous ways of knowing and with the other eye, we view the world through Western, or Eurocentric, ways of knowing.

There will be travel involved to site. Students are required to provide transportation. Some monies will be available for purchase of fuel. Work done on site may extend outside of scheduled classtime and will be discussed in advance with the group as a whole.



A concentric arrangement of frames creates an intimate courtyard surrounded by a concrete frame. The frame's materiality and monolithic mass creates a contrast for viewing and experiencing.

Student model fall 2022. Sam Chernier et al.

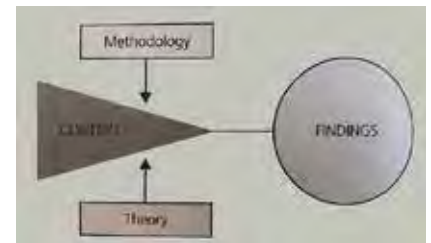


image: Research Methods for Architecture. Ray Lucas.

Notes

1. Lucas R. *Research Methods for Architecture*. London, Laurence Kin Publishing Ltd, 2016, pg.69

2. Lucas R. *Research Methods for Architecture*. London, Laurence Kin Publishing Ltd, 2016, pg.70

Term Schedule:

Week	Topics	Tuesday	Event
1	Introduction to: 2-ES; drawing event	May 7	Safety Talk / Frame assembly / dis-assembly
2	Towards Permanence and Ephemerality. Install prototype	May 14	Assignment 1a: Seminar due (texts) Work on site this week in Millbrook
3	Near and Far. Community, Collaboration, and Context (Meet the team!)	May 21	Assignment 1b: Seminar due (films)
4	Workshop – limits / building store palette / documentation	May 28	Assignment 1c: Seminar due (artifacts) Work on site this week in Millbrook
5	Hoops and frames. Assembly and design development of project.	June 4	Assignment 2a: Detail proposal due. Work on site this week in Millbrook
6	Panels and Skins Assembly and design development of project.	June 11	Assignment 2b: Detail proposal due.
7	Events in and around Kjiptuk	June 18	National Indigenous Month. Several events will be taking place throughout. See .
8	Onsite work Near or Far	June 25	work on site in Millbrook
9	On site work Near or Far	July 2	work on site in Millbrook
10	Event in Millbrook	July 9	Last day of weekly classes. Assignment 3 + 4 due.



View of temporary structure installed on course build site (summer 2023). In view, collaborator Mark MacKinnon



Deployable structure (1 of 4) installed at Dalhousie Quad as Part of [NAIG 2023](#).



First of 7 prototype structures. Install Fall 2022.

Assignments:

The major course component will entail the design development and construction

1. Expanding the (theoretical) Field.

(30% individual)

This 3 part seminar students will research, discover and discuss Indigenous works in the form of film, writing and artifacts. Concurrently we will converse with project collaborators to learn more about settler colonialism and indigenous decolonization.

seminars

A+	Demonstrated exceptionally outstanding capacity to review seminar material, prepare seminar notes and contribute to class discussions
A	Demonstrated outstanding capacity to review seminar material, prepare seminar notes and contribute to class discussions
A-	Demonstrated generally outstanding capacity to review seminar material, prepare seminar notes and contribute to class discussions
B+	Good evidence of critical capacity and analytical ability to review seminar material, prepare seminar notes and contribute to class discussions
B	Generally good evidence of critical capacity and analytical ability to review seminar material, prepare seminar notes and contribute to class discussions
B-	Some evidence of critical capacity and analytical ability to review seminar material, prepare seminar notes and contribute to class discussions
C	Ability to assess and convey an understanding of seminar material, prepare seminar notes and contribute to class discussions
D	Minimally acceptable ability to assess and convey an understanding of seminar material, prepare seminar notes and contribute to class discussions
F	Inadequate ability to assess and convey an understanding of seminar material, prepare seminar notes and contribute to class discussions

2. Architectural Details.

(30% group)

To develop material details and incorporate them at full scale into one of the two working sites (Near-shops) / Far-on site in Millbrook). This assignment has two iterations.

details

A+	Demonstrated exceptionally outstanding capacity to conceive / communicate a material assembly / detail while working within established limits
A	Demonstrated outstanding capacity to conceive / communicate a material assembly / detail while working within established limits
A-	Demonstrated generally outstanding capacity to conceive / communicate a material assembly / detail while working within established limits
B+	Good evidence of critical capacity to conceive / communicate a material assembly / detail while working within established limits
B	Generally good evidence of capacity to conceive / communicate a material assembly / detail while working within established limits
B-	Some evidence of critical capacity to conceive / communicate a material assembly / detail while working within established limits
C	Ability to assess and convey an understanding of how to conceive / communicate a material assembly / detail while working within established limits
D	Minimally acceptable ability to assess and convey an understanding of how to conceive / communicate a material assembly / detail while working within established limits
F	Inadequate ability to assess and convey an understanding of how to conceive / communicate a material assembly / detail while working within established limits

3. Documentation / Catalogue

(30% individual)

Develop a collective set of Field Notes of observations, drawings and photographs that will serve as an exhibition or a catalogue.

4. Fieldwork

(10% individual) Peer evaluation related to abilities to successfully research, discuss and implement shared ideas in the context of the design-build projects.

documentation
and fieldwork

A+	Demonstrated exceptionally outstanding capacity to communicate research, field studies and and complete work on site
A	Demonstrated outstanding capacity to communicate research, field studies and and complete work on site
A-	Demonstrated generally outstanding capacity to communicate research, field studies and and complete work on site
B+	Good evidence of critical capacity to communicate research, field studies and and complete work on site
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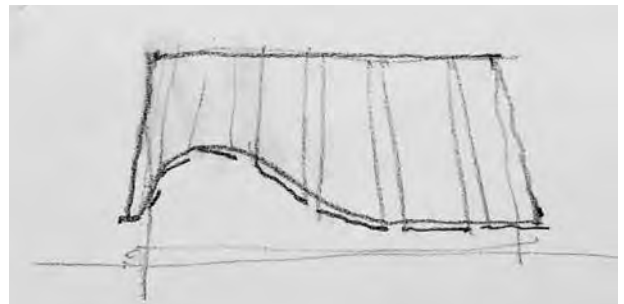
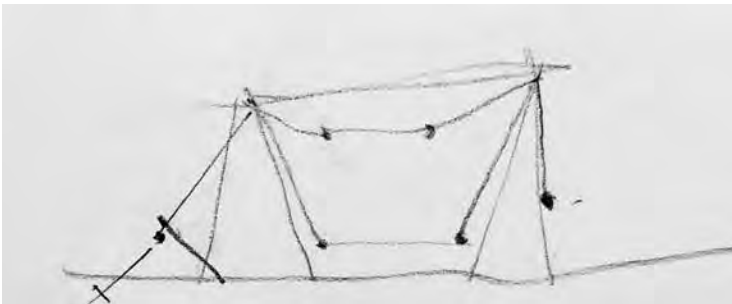


image: exploratory elevational studies

Criteria and Standards for Assessment:

Criteria will be indicated in each assignment handout, along with their relative weights.

Group Assignments:

Students in a group are assigned the same grade unless a criterion to distinguish between individual students is specified.

Graduate Grade Standards for course:

The graduate grades below apply to the final grade for the course. Grades for individual assignments can include grades in the C and D range.

Letter	Grade point	Percent	Description
A+	4.3	90–100%	
A	4.0	85–89%	
A–	3.7	80–84%	
B+	3.3	77–79%	
B	3.0	73–76%	
B–	2.7	70–72%	
F	0.0	0–69%	
INC			Incomplete
W			Withdrew after deadline
ILL			Compassionate reasons, illness

Grading Format:

Assignment evaluations will be issued to students as grades with written comments.

Calculation of Final Grades:

Letter grades for individual assignments will be converted to their mid-point percentage, multiplied by their weight, added, then converted to a final letter grade.



image: view of course installation (Fall 2022)

Course-Specific Policies:

Due Dates and Late Submissions

Deductions for late submissions encourage time management and maintain fairness among students.

	Due date	Is a late assignment accepted?	If so, what is the deduction per weekday?*	Is there a final deadline for a late submission?	What happens after that?
Assignment 1a	14-May	yes	3%	21-May	receives 0% and no comments
Assignment 1b	21-May	no			receives 0%
Assignment 1c	28-May	yes	3%	04-Jun	receives 0% and no comments
Assignment 2a	04-Jun	yes	3%	11-Jun	receives 0% and no comments
Assignment 2b	11-Jun	yes	3%	18-Jun	receives 0% and no comments
Assignment 3	09-Jul	no			receives 0%
Assignment 4	09-Jul	no			receives 0%

* For example, if an assignment is evaluated at 75% before applying a 3%-per-weekday deduction, it would receive 72% for being 1–24 hours late; 69% for 25–48 hours late; etc.

Note:

The following University or School policies take precedence over course-specific policies:

- No late assignments are accepted after the last day of weekly classes (the Friday before review week).
- With a Student Declaration of Absence (maximum two per course), an assignment may be submitted up to three weekdays late without penalty. An SDA cannot be used for the final assignment.
- With a medical note submitted to the School office, a course assignment (including a final assignment) may be submitted more than three weekdays late without penalty. The number of weekdays depends on how long you were unable to work, as indicated in the medical note. If more than one course is affected, you should consult with the Undergraduate/Graduate Coordinator to set a new schedule of due dates.
- A student with an accessibility plan that allows for deadline extensions does not need to submit an SDA.

Human Research Ethics:

Any students who are doing research involving human subjects must follow the university's regulations. This applies to interviews, photographing individuals, etc.

University Policies and Resources:

This course is governed by the academic rules and regulations set forth in the University Calendar and the Senate. See the School's "Academic Regulations" page (<http://tinyurl.com/dal-arch-regulations>) for links to university policies and resources:

- Academic integrity
- Accessibility
- Code of student conduct
- Diversity and inclusion; culture of respect
- Student declaration of absence
- Recognition of Mi'kmaq territory
- Work safety
- Services available to students, including writing support
- Fair dealing guidelines (copyright)
- Dalhousie University Library

References:

Course specific readings can be found here:

https://dalu-my.sharepoint.com/:f/r/personal/rdmullin_dal_ca/Documents/NAIG%20General/NAIG?csf=1&web=1&e=fhuVGO

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- Brookes, Allan J. and Poole, Dominique, *Innovation in Architecture*. London: Spon Press, 2004. *Concept before calculation* (ch3), Tony Hunt, Tony Hunt Associates, *A process-oriented Architecture* (ch4), David Kirkland, Nicholas Grimshaw & Partners Ltd.
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