

Fall 2023
GRADUATE COURSE OUTLINE

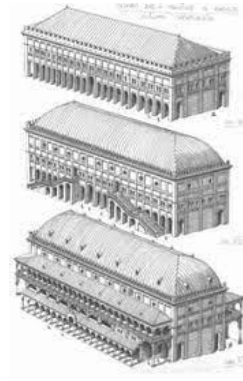
COURSE CODE: ARC 3020YF
COURSE TITLE: Design Studio Research 1
PREREQUISITE COURSES: Core Studios
CLASSROOM LOCATION: TBD
CLASS HOURS: Tuesdays 9-1pm; 2-6pm
INSTRUCTOR NAME: Carol Moukheiber
INSTRUCTOR EMAIL: carol.moukheiber@daniels.utoronto.ca
OFFICE HOURS: By appointment
OFFICE LOCATION: Room 343

The Certainty of Uncertain Forms, or in search of anexact typologies

"Questions... Morphology? Longevity? Incept dates?"
Roy Batty, Replicant – Blade Runner



Pallazo della Ragione, Padua, Italy 1172-



COURSE DESCRIPTION:

What happens the day after a building is built? or years, decades, or even centuries after?

Within the context of a *circular economy*, the concept of *durability*, as opposed to early/planned obsolescence, is key in that it implies an extended lifespan (100+ years) with minimum capital cost and energy expenditure during its duration. However, as the vagaries of history demonstrate with mutating contexts and social practices, building uses change over time. Durability can then perhaps be understood as the ability to eschew obsolescence, even facilitate change in use while limiting material



waste and day to day disruption. This pursuit of durability, far from resulting in a nondescript structure posits that spatial, structural, and infrastructural specificities are critical in enabling the durable.

The research studio will engage in typological research and speculation into low carbon, functionally indeterminate forms, or an exact typologies that can anticipate change. Although uncertain in their programmatic destinies, these building morphologies will be quite certain in their spatial/formal/material inventions while remaining open ended in their social performance. An understanding of buildings as containing multiple “shearing layers,” with each layer being governed by its own entropic timescale will serve as a springboard from which to rethink a building’s layer alignments and temporalities.¹

The studio will document and study buildings from various periods that have accommodated or can facilitate significant transitions and transformations over time. Forms will be analyzed structurally, materially, and socially. The research will attempt to understand energy expenditures in parallel with programmatic, thermal, material, and formal organizations. Lessons drawn will be concretized into speculations on uncertain forms. These models will in turn serve as formal and conceptual guides for each student’s unique thesis proposal.

Emerging individual thesis projects are expected to expand on the studio’s research by understanding time (and lifecycles) as dominant design parameters in the selection of site(s), program(s), and form(s).

The studio consists of 2 main parts:

P1 – wk1-5:

(a) Defining Terms

The purpose of this exercise is to develop a collective understanding of what constitutes typological durability. Through a series of readings and discussions, we will identify and distill principles that will serve as guideposts for the term.

(b) Analysis

The purpose of this exercise is to develop and formulate strategies for adaptation and durability in buildings. A series of case studies will be analyzed collectively. This will necessitate investigations into the circularity of a building’s economy, along with its potential for social, political, and environmental adaptation over time.

P2 – wk6-12:

Model Building + Thesis Statement

The purpose of this exercise is to experiment with structural models and drawings that explore the concepts and knowledge gained from P1 and P2. These physical

¹ Brand, Stewart. *How Buildings Learn: What Happens After They’re Built?* New York: Penguin Books, 1995.

models will embody strategies that carefully consider open ended structures with low operational and embodied energy.

COURSE OBJECTIVES:

- Gain a broader cultural perspective by engaging in a global context through the careful analysis of case studies dealing with adaptive reuse.
- Have a critical understanding of sustainability, or durability in architecture, through the development of a toolkit using a wide range of precedents and strategies.
- Use typology as: a form of disciplinary knowledge; a method of analysis and design; and as a distinct architectural invention that is open to mutation.
- Demonstrate an acute and subtle understanding of the impact of form on the social culture that it promotes.
- Advance modes of representation and communication extracted from the disciplines of art, architecture, and urbanism.

SCHEDULE:

Week 1:	September 12, 2023 P1 (a+b) – Defining Terms + Analysis
Week 2:	September 19, 2023 Desk crits
Week 3:	September 26, 2023 Desk crits
Week 4:	October 3, 2023 P1 (a+b) Review
Week 5:	October 10, 2023 P2 – Model Building + Thesis Statement
Week 6:	October 17, 2023 Desk crits
October 19-29	PROPOSED TRIP
Week 7:	October 24, 2023 Trip // no class
Week 8:	October 31, 2023 Desk crits
Week 9:	November 07, 2023 Desk crits
Week 10:	November 14, 2023 P2 Penultimate Review
Week 11:	November 21, 2023 Desk crits
Week 12:	November 28, 2023 Desk crits
TBD	Final Review

READINGS/REFERENCES:

Brand, Stewart. How Buildings Learn: What Happens After They're Built? New York: Penguin Books, 1995.

Duffy, Frank. *Work and the City. The Edge Futures*. London: Black Dog Publishing, 2008.

Habraken, N.J. *Supports: An Alternative to Mass Housing*. Academy Editions, 1972.

Kohler, Niklaus, Holger König, Johannes Kreissig, and Thomas Lützkendorf. *A Life Cycle Approach to Buildings: Principles, Calculations, Design Tools*. DETAIL Green Books, 2010.

Leupen, Bernard. *Frame and Generic Space*. 010 Publishers, 2006

Moe, Kiel. *Convergence*. Routledge, 2013.

Rossi, Aldo. *The Architecture of the City*. MIT Press, 1966.

Schmidt, Robert III, and Simon Austin. *Adaptable Architecture: Theory and Practice*. Routledge, 2016.

Till, Jeremy, and Tatjana Schneider. "Flexible Housing: The Means to the End." *ARQ* vol. 9, nos. 3/4 (2005).

PRECEDENTS:

Theatre of Marcellus, **Rome** 13 BC -

Palazzo della Ragione, Giovanni degli Eremitani +, Padua 1172-

Musée National Gustave Moreau, Albert Lafon +, Paris 1852-

Ball, Black & Co. Building, John Kellum +, New York City 1859-

Prince George, Howard Greenley +, New York City 1904-

Hotel for Autos, Milton A. Kent +, New York City 1920s-

Edificio Polifunzionale in via Campania, **Rome**, 1964

La MéMÉ, Lucien Kroll, Louvain 1960s-

1 St. Clair West, Sigmund D. F. Resznetnik + Gensler, Toronto 1968-

Nantes School of Architecture, Lacaton Vassal, Nantes 2009-

Kibera Hamlets School, SelgasCano, Nairobi 2017-

ESTIMATED TRIP COSTS:

Flight:

Ticket, Air Transat direct flight: \$1,385CAD

Hotel:

Room with Single Twin Bed: 150 Euros per night

Double Room for Single Occupancy: 200 E per night

Double Room shared: 230 E per night / 115 per student

Triple Room Shared: 290 E per night / 97 per student

Quad Room Shared: 350 E per night / 90 per student (only one available)

On top of these room costs there is an additional hotel tax of 4 Euros per night per person. So each of us will pay an additional 40 Euros in hotel tax.

All rooms have bathrooms, and the price includes breakfast.

Transportation: \$100CAD to and from airport + trip to Rivoli. Walking the rest of the time.

Meals: pizza or past approx. 12-15 Euros

