UNIVERSITY OF CALGARY
SCHOOL OF ARCHITECTURE,
PLANNING AND LANDSCAPE

Winter 2024

Course Number	ARCH 702	Classroom	CBDL Main Floor Studio
Course Name	Senior Research Studio in Architecture II: Inter Situ Studio		
Pre/Co-Requisites	ARCH 694 Synthetic Operations: Developing a Hybrid Practice (selective)		
Instructor	Assistant Professor Chad Connery	**Office Hours**	By appointment at CBDL or PF4188 on campus
	Email: chad.connery@ucalgary.ca	**Phone: 204 298 7150**	
Class Dates	In-Person, Tuesdays and Fridays, Jan 8 – Apr 9, 2:00pm to 6:00pm		
Instructor Email Policy	All course communications must occur via @ucalgary email. Emails received are addressed with 24-48 hour response time.		

Course Description:

A research design studio in which students collaborate with design faculty in exploring projects that engage contemporary issues defining the built and natural environments.

Foucault's Pendulum installed at the Smithsonian Museum, Washington DC. 1964.

"The greatest weakness of contemporary thought seems to me to reside in the extravagant reverence for what we know compared to what we do not know yet."
- Andre Breton, L'amour Fou

Inter Situ Studio

"The phenomenon develops calmly, but it is inevitable, unstoppable. One feels, one sees it born and grow steadily; and it is not in one's power to either hasten it or slow it down. Any person, brought into the presence of this fact, stops for a few moments, and remains pensive and silent; and then generally leaves, carrying with [them] forever a sharper, keener sense of our incessant motion through space."

Léon Foucault – Describing his pendulum (1851)[1]

In describing the experience of his pendulum in 1851, Léon Foucault reorientates his sensation of the external world about the experiment's demonstrated reality. The pendulum's oscillating swing confirms the rotation of the earth before our eyes and the previously abstract becomes experiential and concrete. The magic-like spectacle of an empirical process or physical construction offers immediate structural, material, and chemical conditions that enable our intellect and imagination to flourish. As territories, studios and laboratories are both sites of knowledge-making and notation. In each space, research is nominally separate from the world in which its products are to be applied. [2] In this regard, scientific and architectural processes are generally "ex situ" in nature, but the agency of physical experiments can precede "in situ" applications as an instructive accomplice.

Ensamble Studio, Ensamble Fabrica, Spain. 2019.

Inter Situ Studio is simultaneously a physical "in situ" site for design inquiries and an "ex situ" laboratory for the projected application of their results. It offers a framework for architectural experimentation through the drawing and analogous construction of prototypes examining architectural ideas' conception, production, and notation. Emphasizing engagement in conceptual approaches to localized architectural expression through tectonic assemblages, the studio recognizes and develops the discipline as "as much a craft-based métier as an applied technique." [3]
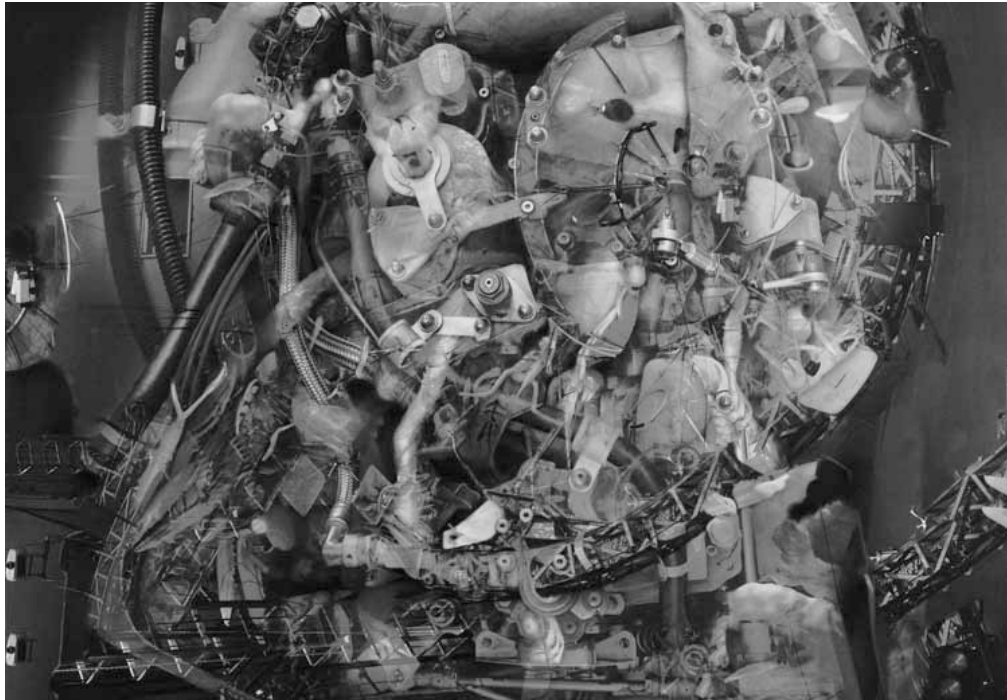
The Big Top, Mark West. 2020.

Inter Situ Studio will engage in a three phased approach to term research:

1. Indexing material, energy, and labor potentials in the regional past and present.
2. Probing potentials of experimental assemblies through explorative drawing and prototyping.
3. Developing sited propositions for "architectural laboratories" to self-examine the production and notation of architectural knowledge.

Projecting forward regarding the manifold developing crises of this moment, Inter Situ Studio chooses an outlook of optimism and operates with dexterity. Instead of asking to return to the normals of a professional or cultural past, it asks how we construct new equitable tools for design processes and innovate modes of investigation for contextual architectural thinking. On the juncture of science and architecture, Kenneth Frampton writes:

"The interface between architecture and science returns to the political… the epistemic criteria of a critical practice aren't just out there waiting to be appropriated and applied. On the contrary, they have to be formulated in the process of constructing a world, just as building comes into being about the convergence of a set of forms and materials that do not as yet exist." [4]

Notes:
1 Aczel, Amir D. Pendulum: Léon Foucault and the Triumph of Science, 15. New York: Atria Books, 2003.
2 Schmidgen, Henning. "The Laboratory." Encyclopedia of the History of Science, April 2021, 2–3. https://doi.org/doi: 10.34758/sz06-t975.
3 Galison, Peter, Emily Ann Thompson, and Kenneth Frampton. "The Mutual Limits of Architecture and Science." Essay. In The Architecture of Science, 1st ed., 363. MIT Press, 1999.
4 Ibid, 368.

Course Hours: 6 units (0-8)

In Person / Online Delivery

This course will take place "in person" as a mandatory format but could require some online, remote, and synchronous elements depending on the specific work of studio members, schedule of the instructor, availability of guest critics, and eventualities of the local and world events. All online elements will be engaged via Desire2Learn (D2L) and Zoom. Students are required to participate in all modes of delivery regardless of method and subject to the same requirements of attendance as in person class. All final projects delivered asynchronously via the D2L portal.

Course Learning Outcomes:

Upon completion of this course, students will know and be able to:

1. *Research:* Aggregate specific technical, communal, historical, and theoretical information as a congealed body pertaining to a targeted aspect of architectural research.
2. *Image:* Engage in multi-media, digital, physical, and hybrid modes of research material production.
3. *Elaborate:* Capture generative modes of inquiry through drawing, modeling, and fabrication.
4. *Resolve:* Bind technical and speculative thinking to architectural process as a means of expressing formal and conceptual resolution in the built environment.

Learning Resources:

Required readings are to be assigned on a student project basis, as discussed in class, and provided via D2L Portal. For further clarity or depth, students may seek out the following suggested readings:

Aczel, Amir D. Pendulum: *Léon Foucault and the Triumph of Science*
Ait-Touati, Frederique. Arenas, Alexandra. Gregoire, Axelle. *Terra Forma: A Book of Speculative Maps*
Benjamin, Walter. *The work of Art in the Age of Mechanical Reproduction*
Bury, Jane & Mark. *Prototyping for Architects*
Cocker, Emma. *On not Knowing: How Artists Think*
Foucault, Michel. *The Order of Things*
Frampton, Kenneth. "The Mutual Limits of Architecture and Science." *The Architecture of Science*
Heidegger, Martin. *The Question Concerning Technology and Other Essays*
Hutton, Jane. *Reciprocal Landscapes*
Pallasmaa, Juhani. *The Thinking Hand*
Polanyi, Michael. *The Tacit Dimension*
Schmidgen, Henning. "The Laboratory." *Encyclopedia of the History of Science*
Thompson, D'arcy W. *On Growth and Form*

Technology requirements (D2L etc.):

In order to successfully engage in their learning experiences at the University of Calgary, students taking online, remote and blended courses are required to have reliable access to the following technology:
- A computer with a supported operating system
- A current and updated web browser
- Webcam (built-in or external)
- Microphone and speaker (built-in or external), or headset with microphone
- Current antivirus and/or firewall software enabled
- Rhinoceros and Adobe Creative suite

Most current laptops will have a built-in webcam, speaker and microphone

Workshop Safety Training Requirement

If a course requires the use of the SAPL workshop, students must complete all online University of Calgary safety courses, the online Trajectory safety training course, as well as in-person workshop training and a grade of pass on the final evaluation project, to be granted access to the SAPL workshop. This training is offered once a year, around the start of the Fall term and has a completion deadline.

Additional Classroom Conduct and Related Information

Guidelines for Zoom Sessions in Online Classes

Students are expected to participate actively in all Zoom sessions and to turn on their webcam. Please join our class in a quiet space that will allow you to be fully present and engaged in the Zoom sessions. Students must behave in a professional manner during the session. Students, employees, and academic staff are also expected to demonstrate behaviour in class that promotes and maintains a positive and productive learning environment.

Assessment Components:

Assessment Method	Description	Weight	Aligned Course Learning Outcome
Indexing Dossier	Summation of 1.0 Indexing Phase in graphic PDF format.	15%	1, 2.
Interim Review	Hybrid presentation of 2.0 Probe Phase supported by 1.0 Indexing Phase materials.	25%	2, 3.
Final Review	Hybrid presentation of summative 3 phased project with research, explorations, and outcomes	30%	1, 2, 3, 4.
Project Portfolio	Submission of summative 3 phased project monograph with responses to Final Review critique	30%	1, 2, 3, 4.

Assessment and Evaluation Information

Attendance and Participation Expectations:

Students are expected to complete all assignments, be present in studio on **Tuesdays** and **Fridays** for the full class time and attend all lectures and reviews. Working in the studio space as a pre-professional endeavor on Monday and Thursday periods is **strongly recommended**. Students are additionally expected to participate in the full culture of the studio environment to reap maximum benefit from engaging with the topic and communal study. This implies the follow through of reading provided texts, investigating suggested resources, examining given references, and engaging in the communal collaborative discussions of the cohort.

For each unexcused absence a grade penalty of 10% may be applied.

Guidelines for Submitting Assignments: All work is to be submitted at end of term as a summative Project Portfolio delivered via D2L Portal.

Final Examinations: Final examination will take the form of a mandatory Final Review using the completed course project materials before a panel of invited guest critics. Final Review, in combination with a submitted Project Portfolio, comprise the evaluated material of the course.

Expectations for Writing (https://www.ucalgary.ca/pubs/calendar/current/e-2.html):

Late Assignments: All late assignments are penalized by the reduction of a complete letter grade for each 24 hours beyond deadline without pre-arranged exemption.

Criteria that must be met to pass: All students must both present their projects in a Final Review and have any assignment worth 30% or greater receive a minimum of B- to pass the course.

Grading Scale:

Grade	Grade Point Value	4-Point Range	Percent	Description
A+	4.00	4.00	95-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	90-94.99	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	85-89.99	Very good performance
B+	3.30	3.15-3.49	80-84.99	Good performance
B	3.00	2.85-3.14	75-79.99	Satisfactory performance
B-	2.70	2.50-2.84	70-74.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	65-69.99	All final grades below B- are indicative of failure at the graduate level and cannot be counted toward Faculty of Graduate Studies course requirements.
C	2.00	1.85-2.14	60-64.99	
C-	1.70	1.50-1.84	55-59.99	
D+	1.30	1.15-1.49	50-54.99	
D	1.00	0.50-1.14	45-49.99	
F	0.00	0-0.49	0-44.99	

A student who receives a "C⁺" or lower in any one course will be required to withdraw regardless of their grade point average (GPA) unless the program recommends otherwise. If the program permits the student to retake a failed course, the second grade will replace the initial grade in the calculation of the GPA, and both grades will appear on the transcript

The School of Architecture, Planning and Landscape will not permit the Flexible Grade Option (CG Grade) for any course offered by the School.
https://www.ucalgary.ca/pubs/calendar/current/f-1-3.html

Topic Areas & Detailed Class Schedule

*Please note that dates and phasing of course materials are subject to change as discussed in class.

Course Schedule Date	Topic	Assignments/Due Dates
Jan 8 – 12	First class – Course Intro	1.0 Indexing Phase brief dist.
Jan 15 – 19	Indexing Phase	
Jan 22 – 26	Indexing Phase	
Jan 29 – Feb 2	Indexing Phase	1.0 Indexing Phase Dossier due 2.0 Probe Phase brief dist.
Feb 5 – 9	Probe Phase	
Feb 12 – 16	Winter SAPL Block week	
Feb 19	Family Day Observed	
Feb 19 – 23	Winter Term Break	
Feb 26 – Mar 1	Probe Phase	Interim Review (1.0 + 2.0)
Mar 4 – 8	Design Phase	3.0 Design Phase brief dist.
Mar 11 – 15	Design Phase	
Mar 18 – 22	Design Phase	
Mar 25 – 28	Design Phase	
Mar 29	Good Friday – University closed	
Apr 1	Easter Monday – University closed	
Apr 2 – 5	Design Phase	
Apr 8 – 9	Last Class	
Apr 15 – 19	Final Review week	Final Review + Portfolio (3.0)

CACB Student Performance Criteria (for Architecture courses only)

The following CACB Student Performance Criteria will be covered in this course at a primary level with other criteria will covered at a secondary level:

A1. Design Theories, Precedents, and Methods: The student must demonstrate an ability to articulate a design process grounded in theory and practice, an understanding of design principles and methods, and the critical analysis of architectural precedents.

A2. Design Skills: The student must demonstrate an ability to apply design theories, methods and precedents to the conception, configurations, and design of buildings, spaces, building elements, and tectonic components.

A3. Design Tools: The student must demonstrate an ability to use the broad range of design tools available to the architectural discipline, including a range of techniques for two-dimensional and three-dimensional representation, computational design, modeling, simulation, and fabrication.

B1. Critical Thinking and Communication: The student must demonstrate an ability to reach clear and precise questions; record, assess and comparatively evaluate information; synthesize research findings and test potential alternative outcomes against relevant criteria and standard; reach well-supported conclusions related to a specific project or assignment; and write, speak, and use visual medial effectively to appropriately communicate on subject matter related to the architectural discipline with the profession and general public.

University of Calgary Policies and Supports

ACADEMIC ACCOMMODATION

It is the student's responsibility to request academic accommodations according to the University policies and procedures listed below. The student accommodation policy can be found at: https://www.ucalgary.ca/legal-services/university-policies-procedures/student-accommodation-policy

Students needing an accommodation because of a disability or medical condition should communicate this need to Student Accessibility Services in accordance with the Procedure for Accommodations for Students with Disabilities:https://www.ucalgary.ca/legal-services/sites/default/files/teams/1/Policies-Accommodation-for-Students-with-Disabilities-Procedure.pdf. Students needing an accommodation in relation to their coursework or to fulfil requirements for a graduate degree, based on a Protected Ground other than Disability, should communicate this need, preferably in writing, to their instructor (contact information on first page above).

SAS will process the request and issue letters of accommodation to instructors. For additional information on support services and accommodations for students with disabilities, visit www.ucalgary.ca/access/ .

ACADEMIC MISCONDUCT

Academic Misconduct refers to student behavior which compromises proper assessment of a student's academic activities and includes: cheating; fabrication; falsification; plagiarism; unauthorized assistance; failure to comply with an instructor's expectations regarding conduct required of students completing academic assessments in their courses; and failure to comply with exam regulations applied by the Registrar.

For information on the Student Academic Misconduct Policy and Procedure please visit: https://www.ucalgary.ca/legal-services/university-policies-procedures/student-academic-misconduct-policy

Additional information is available on the Academic Integrity Website at https://ucalgary.ca/student-services/student-success/learning/academic-integrity.

COPYRIGHT LEGISLATION:

All students are required to read the University of Calgary policy on Acceptable Use of Material Protected by Copyright (https://www.ucalgary.ca/legal-services/university-policies-procedures/acceptable-use-material-protected-copyright-policy) and requirements of the copyright act (https://laws-lois.justice.gc.ca/eng/acts/C-42/index.html) to ensure they are aware of the consequences of unauthorised sharing of course materials (including instructor notes, electronic versions of textbooks etc.). Students who use material protected by copyright in violation of this policy may be disciplined under the Non-Academic Misconduct Policy (https://www.ucalgary.ca/pubs/calendar/current/k.html).

INSTRUCTOR INTELLECTUAL PROPERTY

Course materials created by instructors (including presentations and posted notes, labs, case studies, assignments and exams) remain the intellectual property of the instructor. These materials may NOT be reproduced, redistributed or copied without the explicit consent of the instructor. The posting of course materials to third party websites such as note-sharing sites without permission is prohibited. Sharing of extracts of these course materials with other students enrolled in the course at the same time may be allowed under fair dealing.

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

Student information will be collected in accordance with typical (or usual) classroom practice. Students' assignments will be accessible only by the authorized course faculty. Private information related to the individual student is treated with the utmost regard by the faculty at the University of Calgary.

SEXUAL AND GENDER-BASED VIOLENCE POLICY

The University recognizes that all members of the University Community should be able to learn, work, teach and live in an environment where they are free from harassment, discrimination, and violence. The University of Calgary's sexual violence policy guides us in how we respond to incidents of sexual violence, including supports available to those who have experienced or witnessed sexual violence, or those who are alleged to have committed sexual violence. It provides clear response procedures and timelines, defines complex concepts, and addresses incidents that occur off-campus in certain circumstances. Please see the policy available at https://www.ucalgary.ca/legal-services/university-policies-procedures/sexual-and-gender-based-violence-policy .

UNIVERSITY STUDENT APPEALS OFFICE

If a student has a concern about a grade that they have received, they should refer to Section I of the Undergraduate Calendar (https://www.ucalgary.ca/pubs/calendar/current/i-3.html) which describes how to have a grade reappraised. In addition, the student should refer to the SAPL's Procedure for reappraisal of grades

OTHER IMPORTANT INFORMATION

Please visit the Registrar's website at: https://www.ucalgary.ca/registrar/registration/course-outlines for additional important information on the following:

- Wellness and Mental Health Resources
- Student Success
- Student Ombuds Office
- Student Union (SU) Information
- Graduate Students' Association (GSA) Information
- Emergency Evacuation/Assembly Points
- Safewalk