UNIVERSITY OF CALGARY
SCHOOL OF ARCHITECTURE, PLANNING AND LANDSCAPE

Winter 2024

Course Number	ARCH 694.15 L07	Classroom	Remote and Online
Course Name	Synthetic Operations: Developing a Hybrid Practice		
Pre/Co-Requisites	ARCH 702 Senior Research Studio II: Inter Situ Studio		
Instructor	Connery Friesen	Office Hours/Location	By appointment online
	Email: TBC		Phone: 204-880-7821
Class Dates	Online (Zoom), Synchronously Monday, Jan 8 – Apr 9, 9:00am to 10:30am		
Instructor Email Policy	All course communications must occur via @ucalgary email. Emails received are addressed with 24–48-hour response time.		

Course Description:

A seminar and workshop abets the goals of the Senior Research Studio by examining hybrid drawings as investigative tools in the design process. The course intends to make space for the orientation of student drawing practices to a collision of speculative operations and physical materials.
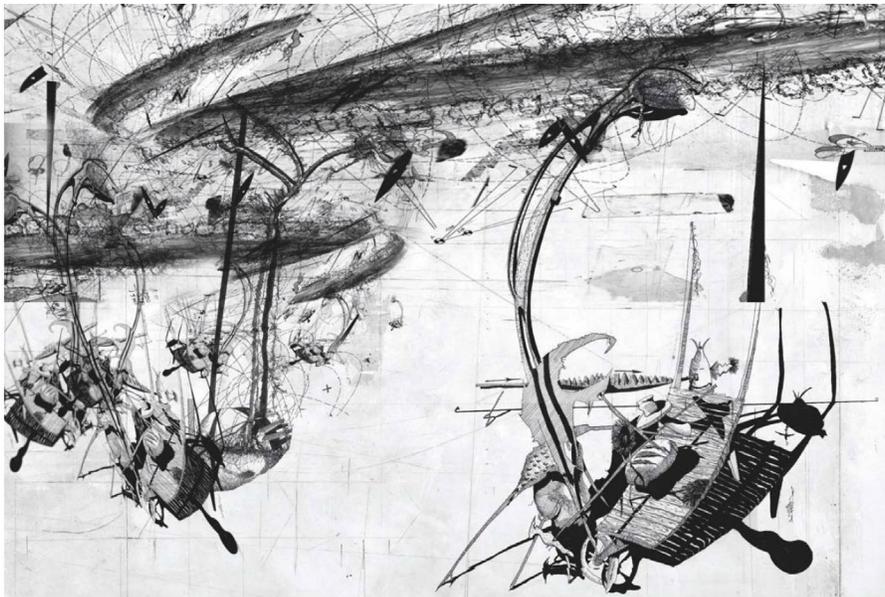
Neil Spiller, Baroness's Filaments in Full Frenzy, 2009.[1]

"Drawing is a form of probing. And the first generic impulse to draw derives from the human need to search, to plot points, to place things and to place oneself"

John Berger[2]

Synthetic Operations: Developing a Hybrid Practice

"Painting, when we have allowed for the pleasure of imitation, can only affect simply by the images it presents"."

Edmund Burke[3]

Historically, architectural drawing has adhered to the stringent conventions of plan, section, and elevation, serving as tools to depict the existing state or envisioned result without attempting to capture the elusive qualities of architectural space. Absent in conventional drawing formats, architectural drawings offer a unique avenue to discover, unearth or reveal the otherwise intangible aspects of our physical environment. Through this process, we can synthesize thoughts and imagery relating to our current understanding, allowing others to experience and contemplate these representations. This approach imparts visual and physical clarity to the otherwise ethereal iconography that typically resides solely within the realm of dreams.
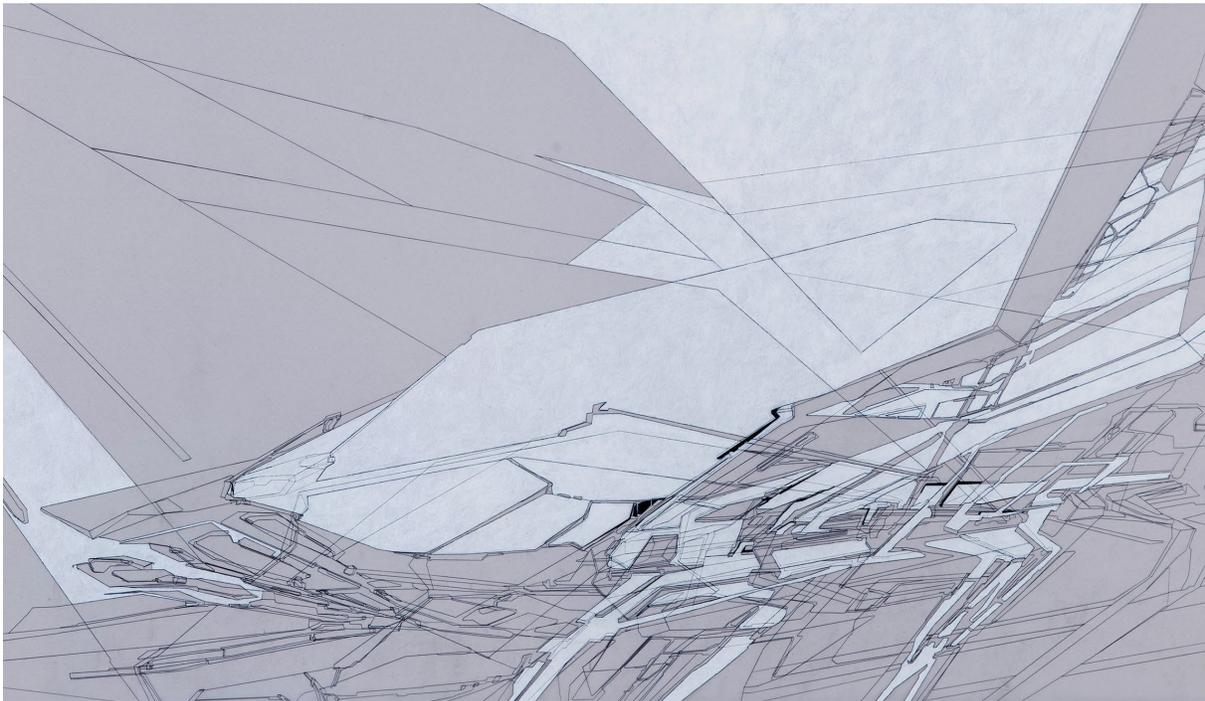
Riot Eeckhout, Process Drawing, Brussels. 2012.[4]

Synthetic Operations: Developing a Hybrid Practice is a platform for the discussion and experimentation of architectural drawing. By Providing exemplary techniques, theories and references, this course aims to develop unique multi-modal, hybrid methods of architectural representation that align with the objectives of the Senior Research Studio.

The final outcome will be three individual 24" x 24" panels organized around a three-stage drawing process, which will involve careful analysis, reflection, and synthesis; as a mode of knowledge production, each drawing will emerge as the visual representation of understanding. Each panel may be a composition of multiple images and physical constructs, a sequence of layers across a range of visual

and text media (traces, photographs, retraces, found objects, sketches, scans, mappings, etc.) or any other multimedia representation that reflects the character of your Senior Research Studio Project. The success of each interim outcome is measured by the depth of analysis, development, thoughtfulness and the ability of the work to provoke thoughtful discourse on the role of drawing in design practice.

Stage 1 | *Site, Theme, Setting* | A carefully curated thematic composition that reflects upon the understanding of site/character/thing as appropriate to the studio project. Regardless of means and methods, this exercise aims to establish the parameters in which future drawings will operate.

Stage 2 | *Synthesize, Analyze, Respond* | Reflecting upon the outcome of Stage 1, using alternative means and methods working both intuitively and critically, continue to develop a unique design process consisting of layers that respond to the established *site, theme and setting* elements. Within this stage, the drawing lays the pieces that allow the reader to understand the complexity of the subject.

Stage 3 | *Spatial, Systems, Discovery* | Visualize the genetic identity captured throughout the previous two stages. Through additional layering/drawing, develop the characteristics of a spatial proposition. These figures may not be recognizable architecturally but shall contain implicit material suggestions and an element of formal organization.

Project Summary | Reflecting on course outcomes, summarize the outcome of the drawing project in 300 words (maximum) and digitally compile along with three course drawings in a singular PDF. This submission should be full scale (24"x24") and 300 dpi to allow for exhibition.

Notes:
1 Berger, John. *Drawing Is Discovery*. *New Statesman (1996)*. Vol. 142. London: New Statesman, Ltd, 2013.
2 Spiller, Neil. *Drawing Architecture*. Architectural Design, John Wiley & Sons, 2013.
3 Burke, Edmund. A Philosophical Enquiry into the Origin of our Ideas of the Sublime and Beautiful. London: Routledge and Kegan Paul, New York: Columbia University Press.
4 Eeckhout, Riet, *Process Drawing.* Accessed January 1, 2024. www.rieteeckhout.com/process-drawing

Course Hours: 1.5 units

In Person / Online Delivery
This course will take place remotely online as a mandatory synchronous format but could require some asynchronous remote elements depending on the specific work of students, 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 an 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. ***Analyze:*** Through critical observation and reflection, understand methods of synthesizing relevant technical, communal, historical, and theoretical information.

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:*** Articulate technical and speculative thinking through non-imitative architectural drawing as a means of expressing formal and conceptual resolution in the built environment.

Recommended Readings:

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:

Spiller, Neil. *AD Drawing Architecture*
Spiller, Neil. Radical Architecture Drawing
Cook, Peter. *Drawing the Motive Force of Architecture*
Young, Michael. *Reality Modeled After Images*
Dorrian, Mark. *Drawing Architecture: Conversations on Contemporary Practice*
Shaikh Hamza. *Drawing Attention*
Chard, Nat. Kulper, Perry. *Pamphlet Architecture 34: Fathoming the Unfathomable*
Cantley, Bryan*. Speculative Coolness*

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
- Broadband internet connection
- Adobe Creative Suite or equivalent
- Rhinoceros 7 or equivalent

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

Online sessions are synchronous and mandatory. 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 behavior in class that promotes and maintains a positive and productive learning environment.

Assessment Components:

Assessment Method	Description	Weight	Aligned Course Learning Outcome
Index Submission	Presentation of Stage 1 Drawing	30%	1, 2.
Interim Presentation	Presentation of Stage 2 Drawing	30%	1, 2, 3.
Final Presentation	Presentation of 3 Stage Drawing	30%	1, 2, 3, 4.
Project Portfolio	Submission of 3 Stage Project monograph	10%	1, 2, 3, 4.

Assessment and Evaluation Information

Attendance and Participation Expectations:

Students are expected to complete all assignments, be present in studio on **Monday** for the full class time and attend all lectures and reviews. Students are additionally expected to participate in the full culture of the course 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. Unexcused absences may result in a 10% percent grade reduction per absence.

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

Final Examinations: No final examination.

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 assignments with a value of 30% or greater must 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

CACB Student Performance Criteria (for Architecture courses only)

No specific CACB Student Performance Criteria is required for selective courses, though course content covers a range of them at primary and secondary levels.

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 – Introduction	
Jan 15 – 19	Constructing a Drawing	
Jan 22 – 26	Guest Speaker - Chad Connery	
Jan 29 – Feb 2	Guest Speaker - TBC	
Feb 5 – 9	Class Dialog: 3hrs 9:00am – 12:00pm	Assignment 1 Due: Friday 9pm
Feb 12 – 16	Winter SAPL Block week	
Feb 19	Family Day Observed	
Feb 19 – 23	Winter Term Break	
Feb 26 – Mar 1	No Class	ARCH 702 Interim Review
Mar 4 – 8	Class Dialog: 3hrs 1:00pm – 4:00pm	Assignment 2 Due: Friday 9pm
Mar 11 – 15	Guest Speaker - TBC	
Mar 18 – 22	Drawing Conversations	
Mar 25 – 28	Guest Speaker - TBC	Discuss findings and Perspectives.
Mar 29	3hrs 1:00pm – 4:00pm	Final Presentations

Apr 1	No Class	
Apr 2 – 5	No Class	
Apr 8 – 9	Last Class: No Class	
Apr 15 – 19		Arch 702 Final review

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