

Ecologies of Technologies: Centre for Contemplative Practice



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"The only wisdom we can hope to attain is humility; humility is endless." T.S. Eliot

Instructors:

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Teaching Assistants: Somayeh Mousazadeh | Margo Glenn

Monday, Tuesday, Wednesday & Friday | 2-6 pm

Preamble

"There is no separation between the observer and the observed, between the subject and the object; they are a seamless continuum." J. Krishnamurti

con·tem·pla·tion

1. The act or state of contemplating. 2. Thoughtful observation or study. 3. Meditation on spiritual matters, especially as a form of devotion. 4. Intention or expectation. [American Heritage Dictionary 4th Edition, Houghton Mifflin Company, 2009]

Modern life is increasingly complex, complicated, fractured and fragmented. We are bombarded with difficult news of conflict, war, corruption, greed, decay, disease, etc. Stress is endemic, illness is prevalent, and hopelessness is growing. While there is tremendous turbulence and omnipresent uncertainty, there remains remarkable potential and rich possibilities. Within this daunting milieu design, planning and architecture have critical opportunities and serious obligations. The Comprehensive Studio this semester is focused on a 'retreat & research' centre that is centrally concerned with reflection, grounding, contemplation and connectness – with gaining perspective, assessing circumstances and setting priorities around the imperative for advancing society, the need to cope with current conditions and the call to realize a more compelling, symbiotic, positive and sustainable tomorrow.

Humans employ a wide range of technologies and systems in their creation and modification of environments; included in this are the many technologies involved in the design, construction, and inhabitation of buildings and their related environments. In this studio, the design of a building and its systems, including interrelationships with context (site, climate, regulatory structures, culture, etc.), are explored through the comprehensive development of spatial, structural, enclosure, and environmental systems.

Centre for Contemplative Practice

"We are here to awaken from the illusion of our separateness." Thich Nhat Hanh

Contemplate + Contemplation | Latin base templum = open space for observation.

The Comprehensive Studio in Winter 2011 considers the design of an innovative centre for self and societal development. The Centre for Contemplative Practice will be a 1500 m² 'retreat & research' facility that brings citizens from all walks of life together to consider the state of our modern world, to critique current models of living, and envision new ways of seeing, thinking and acting. The non-profit Centre includes a rich mix of uses, users, places and spaces, with key components including research, education, service, communication and above all provisions for personal reflection, contemplation, transformation and growth. Located in Calgary, Alberta, Canada, a city identified by Saskia Sassen as an emergent Global City, the Centre for Contemplative Practice finds resonance with its own location while proving an international destination for individuals, governments, corporations and agencies interested critically reconsidering contemporary civilization. The architecture & design of the Centre must facilitate and promote the purposes and aspirations of the initiative while concurrently serving as a model of creativity, innovation, integration and sustainability.

Site & Program

The Centre, an approximately 1500 m² retreat & research facility, will be located on the southwest corner of 7th Avenue & Centre Street in downtown Calgary. This site was carefully determined to provide strong access to transit and the core, to afford rich opportunities for design exploration, and to offer possibilities for identity, branding and high exposure. The architectural programme for the Centre acknowledges the importance of innovation, the potential of design + space to influence behaviour, and the value of a diversity of both uses & users. This site is intensely urban, demanding creativity, sensitivity and skill in order to achieve an ethos conducive to reflection + contemplation. Detailed site information and programmatic requirements for the Centre for Contemplative Practice will be distributed separately.

Objectives

The focus of the comprehensive design studio is the environmental (i.e. sustainability) potential of innovative design and building technologies. The studio will explore the relationships between architectural form, its tectonic and material articulation, and its environmental impacts. The basic curricular objective is the overall formal, spatial, and tectonic resolution of a moderately complex building (Centre for Contemplative Practice) of approximately 1500 m², situated in an urban context, including appropriate allocation of the program, resolution of circulation and proper means of egress, as well as a basic articulation of building structure, environmental systems, assembly, and envelope, and adherence to the building codes. Equal consideration will be given to user needs and human dimensions, including environmental perception, symbolism and meaning, ergonomics and adaptability, cultural sensitivity and place-making.

This studio will operate in parallel and will be closely coordinated with the building technology courses. Beyond designing and representing a building, students are expected to develop fully integrated building systems and learn the basics of technical documentation. Building structures, construction assemblies, environmental systems, and energy and resource use will be an important part of research and experimentation in the studio. It is expected that some form of performance feedback will be part of the design explorations.

Requirements

In addition to normative drawings (plans, sections, elevations) and digital 3D models and renderings, various physical scale models may, at the instructor's discretion, be expected at specific stages. In addition to a developed design of the Institute's facilities, its structural and environmental systems will have to be sufficiently articulated and adequately documented. A selected segment of the building's envelope will be developed and modeled in greater detail.

Grading

Reviews will occur at the end of each assignment and grades will be given at each of those points. Grades will be cumulative through the semester, and will count according to time allotment for each assignment. Students are expected to meet all requirements for each assignment to receive a passing grade. In general grades will be based on the following (depending on the topic and the assignment): development (process) 30%, conclusion (product) 30%, presentation 30%, attendance and participation 10%.

Letter Grade	4-Point Scale	4-Point Range	Percent	Description
A+	4.00	4.00	92.5-100	Outstanding - evaluated by instructor
A	4.00	3.85-4.00	85-92.49	Excellent - superior performance showing comprehensive understanding of the subject matter
A-	3.70	3.50-3.84	80-84.99	Very good performance
B+	3.30	3.15-3.49	76-79.99	Good performance
B	3.00	2.85-3.14	73-75.99	Satisfactory performance
B-	2.70	2.50-2.84	70-72.99	Minimum pass for students in the Faculty of Graduate Studies
C+	2.30	2.15-2.49	66-69.99	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	63-65.99	
C-	1.70	1.50-1.84	60-62.99	
D+	1.30	1.15-1.49	56-59.99	
D	1.00	0.50-1.14	50-55.99	
F	0.00	0-0.49	0-49.99	

Note: A student who receives a B- or lower in two or more courses will be required to withdraw regardless of their grade point average unless the program recommends otherwise. Individual programs may require a higher minimum passing grade. A grade point value of 3.0 on the 4-Point Scale is the minimum acceptable average that a graduate student must maintain throughout the program as computed at the end of each registration anniversary year of the program. A student who receives a grade of F will normally be required to withdraw unless the program recommends otherwise.

Schedule

Weeks 1 – 3 Conceptual Design (including site analysis, interpretation & planning)

January 27 (F) Review (10% of the final grade)

Weeks 4 – 7 Design Development

February 20-24 Family Day and Block Week (no studio)

March 06 (T) Mid-term Review (25% of the final grade)

Weeks 8-10 Design + Integration of Building Systems

March 27 (T) $\frac{3}{4}$ Review (25% of the final grade)

Weeks 11-13 Technical Documentation (Final Documentation)

April TBD Final Review (40% of the final grade)

Note: The schedule is subject to change. All review dates are tentative. Various phases of the project will be completed according to a closely coordinated schedule with building technology classes.

Required Reading:

Juhani Pallasmaa. *The Thinking Hand: Existential and Embodied Wisdom in Architecture*. (AD Primers Series). John Wiley & Sons: West Sussex, UK. 2009;

Recommended Reading:

The City:

Gary Bridge and Sophie Watson (Editors). *The Blackwell City Reader (2nd Edition)*. Wiley-Blackwell Publishing: West Sussex, UK. 2010

Nic Clear (Editor). "Architectures of the Near Future". *Architectural Design*. September/October 2009. Profile No. 2010. John Wiley & Sons: West Sussex, UK.

Adrian Lahoud, Charles Rice, and Anthony Burke (Editors). "Post-Traumatic Urbanism". *Architectural Design*. September/October 2010. Profile No. 207. John Wiley & Sons: West Sussex, UK.

Paul L. Knox. *Cities and Design: Critical Introductions to Urbanism and the City*. Routledge: New York, 2011.

Moshen Mostafavi and Gareth Doherty Editors | Harvard University Graduate School of Design). *Ecological Urbanism*. Lars Muller Publishing: Baden Switzerland. 2010.

Metropolis Now! Urban Cultures in Global Cities. Edited by Ramesh Kumar Biswas. SpringerWein: New York, 2000.

"Metropolis Now". *Foreign Policy: Global Politics, Economics & Ideas*. September/October 2010. Especially article: "Beyond City Limits" by Parag Khanna. Pp 120-128.

Theory, Practice & Process:

Jesse Reiser and Nanako Umemoto. *Atlas of Novel Tectonics*. New York: Princeton Architectural Press, 2006.

Tomoko Sakamoto, Albert Ferre and Michael Kubo (Editors). *The Yokohama Project*. Barcelona: Acta, 2003.

Brian R. Sinclair. Culture, Context, and the Pursuit of Sustainability: Contemplating Problems, Parameters, and Possibilities in an Increasingly Complex World. In *Planning for Higher Education*, Ann Arbor: Oct.-Dec. 2009. 38-1, pp. 6-22.

Design | Construction Methods, Delineation & Communication:

- AIA, *Architectural Graphic Standards* (11th edition). New York: Wiley, 2007.
- Edward Allen and Joseph Iano. *The Architect's Studio Companion: Rules of Thumb for Preliminary Design* (Fourth Edition). New York: Wiley, 2006.
- Edward Allen and Joseph Iano. *Fundamentals of Building Construction: Material and Methods* (Fifth Edition). New York: Wiley, 2009.
- Linda Brock. *Designing the Exterior Wall: An Architectural Guide to the Vertical Envelope*. New York: Wiley, 2005.
- Alan Brookes and Chris Grech. *The Building Envelope and Connections*. Butterworth, 1996.
- Francis DK Ching. *Architectural Graphics* (5th edition). John Wiley: New York 2009.
- Francis DK Ching. *Architecture: Form, Space & Order*. (3rd edition). John Wiley: New York 2007.
- Francis DK Ching and Steven Winkel. *Building Codes Illustrated: A Guide to Understanding the 2006 International Building Code* (2nd edition). New York: Wiley, 2006.
- Francis DK Ching and Cassandra Adams. *Building Construction Illustrated* (3rd edition). New York: Wiley, 2003.
- Manfred Hegger et al. *Construction Materials Manual*. Basel: Birkhauser, 2006.
- Manfred Hegger et al. *Energy Manual: Sustainable Architecture*, Basel: Birkhauser, 2008.
- Thomas Herzog, *Facade Construction Manual*. Basel: Birkhauser, 2005.
- Frank Kaltenbach. *Detail Practice: Translucent Material: Glass, Synthetic Materials, Metal*, Birkhauser, 2004.
- Ulrich Knack et al, *Facades: Principles of Construction*. Basel: Birkhauser, 2007.
- Norbert Lechner. *Heating, Cooling, Lighting: Sustainable Design Methods for Architects*. New York: Wiley, 2008.
- Eberhard Oesterle. *Double-Skin Facades: Integrated Planning*. 2001.
- Christian Schittich. *Glass Construction Manual*. Basel: Birkhäuser, 1999.
- Christian Schittich. *Steel Construction Manual*. Basel: Birkhäuser, 2000.
- Christian Schittich. *Building Skins: Concepts, Layers, Materials*. Basel: Birkhäuser, 2001.
- Bernhard Weller et al. *Glass in Building: Principles, Applications, Examples*. Basel: Birkhauser, 2009.
- Michael Wiggington. *Intelligent Skins*. Architectural Press, 2002.
- 7group and Bill G. Reed. *The Integrative Design Guide to Green Building: Redefining the Practice of Sustainability*. New York: Wiley, 2009.

Important Notes

1. Written work, term assignments and other course related work may only be submitted by e-mail if prior permission to do so has been obtained from the course instructor.
2. It is the student's responsibility to request academic accommodations. If you are a student with a documented disability who may require academic accommodation and have not registered with the Disability Resource Centre, please contact their office at 220-8237. (<http://www.ucalgary.ca/drc/node/46>) Students who have not registered with the Disability Resource Centre are not eligible for formal academic accommodation. You are also required to discuss your needs with your instructor no later than fourteen (14) days after the start of this course.
3. Plagiarism - Plagiarism involves submitting or presenting work in a course as if it were the student's own work done expressly for that particular course when, in fact, it is not. Most commonly plagiarism exists when:(a) the work submitted or presented was done, in whole or in part, by an individual other than the one submitting or presenting the work (this includes having another impersonate the student or otherwise substituting the work of another for one's own in an examination or test),(b) parts of the work are taken from another source without reference to the original author,(c) the whole work (e.g., an essay) is copied from another source, and/or,(d) a student submits or presents work in one course which has also been submitted in another course(although it may be completely original with that student) without the knowledge of or prior agreement of the instructor involved. While it is recognized that scholarly work often involves reference to the ideas, data and conclusions of other scholars, intellectual honesty requires that such references be explicitly and clearly noted. Plagiarism is an extremely serious academic offence. It is recognized that clause (d) does not prevent a graduate student incorporating work previously done by him or her in a thesis. Any suspicion of plagiarism will be reported to the Dean, and dealt with as per the regulations in the University of Calgary Graduate Calendar.
4. Information regarding the Freedom of Information and Protection of Privacy Act (<http://www.ucalgary.ca/secretariat/privacy>) and how this impacts the receipt and delivery of course material
5. Emergency Evacuation/Assembly Points (<http://www.ucalgary.ca/emergencyplan/assemblypoints>)
6. Safewalk information (<http://www.ucalgary.ca/security/safewalk>)
7. Contact Info for: Student Union (<http://www.su.ucalgary.ca/page/affordability-accessibility/su-structure/contact-info>); Graduate Student representative(<http://www.ucalgary.ca/gsa/>) and Student Ombudsman's Office (<http://www.su.ucalgary.ca/page/quality-education/academic-services/student-rights>).

Special Budgetary Requirements

Special budgetary requirements are limited to the optional purchase of course readings and, in specific courses, mandatory supplementary fees to cover certain expenditures, such as field trips. Mandatory supplementary fees must be approved by the University prior to implementation.

Optional:

For certain courses students may be given the option of purchasing course readings. In these cases the cost of the reading package should be stated. When course readings are available for purchase, a minimum of two copies of the readings must be made available in the EVDS Resource Centre.

Mandatory:

The University has approved supplemental fees for the following courses:

2011/2012 SUPPLEMENTARY COURSE FEES

EVDA 503/EVDS 603 - Studio I in Architecture	\$92.00
EVDA 501/EVDS 601 – Interdisciplinary Seminar	\$250.00
EVDA 582 - Studio II in Architecture	\$92.00
EVDA 621 – Intro to Design Theories	\$250.00 (for new-to-EVDS M1 students only)
EVDA 682.02 – Intermediate Studio	\$92.00
EVDA 682.04 - Comprehensive Arch. Studio	\$92.00
EVDA 782 - Senior Arch. Studio (all sections)	\$92.00
EVDS 723.02 - Sustainable Futures	\$35.00
EVDS 723.03 – People & Technology	\$35.00

CACB Student Performance Criteria:

The following CACB Student Performance Criteria will be covered in this course at a primary level (other criteria will be covered at a secondary level): B1: Design Skills; B2: Program Preparation; B3: Site Design; B4. Sustainable Design; B5. Accessibility; B6. Life Safety; B7: Structural Systems; B8. Environmental Systems; B9. Building Envelope; B10. Building Services; B11. Building Materials; C1: Detailed Design Development; C2. Building Systems Integration; C3. Technical Documentation; C4. Comprehensive Design.". (see CACB SPC matrix for further details)

Contact & Office Information

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Please contact instructors and teaching assistants with any questions or concerns. Meetings by appointment.