ARC 497b I 597b: Special Projects in Architecture, 3-CU, 2015
Instructor: Shane Ida Smith, PhD

COURSE DATA
ARC 497b I 597b Special Projects in Architecture
BUILDING ENCLOSURE: PERFORMANCE, MATERIALS, ASSEMBLY, AND ORGANIZATIONS
CAPLA Study Abroad Summer 2015
3-credit units

FACULTY
Shane Ida Smith, PhD, AIA, LEED AP, Assistant Professor
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office hours by appointment

TEACHING ASSISTANT
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CRITERIA
FULFILLMENT
This course satisfies an upper division elective credit in the College of Architecture, Planning, and Landscape Architecture.

PREREQUISITES
Acceptance into the University of Arizona 2015 CAPLA Study Abroad SCANDINAVIA Program.

CO-REQUISITES
ARC 499 I 599 The Diagram and the Precedent

ENROLLMENT
This course is limited to University of Arizona 2015 CAPLA Study Abroad SCANDINAVIA Program enrollees.

CONTACT
M, W, F: 3.0 hrs/day minimum [i.e. 9:30am-12:30pm -OR- 1:30pm-4:30pm]
Th: 2.5 hrs/day minimum [i.e. 10:00am-12:30pm -OR- 1:30pm-4:00pm]
TOTAL: 11.5 hrs/week minimum (excluding travel)

WEB + D2L
This course will be supported over D2L, this course D2L site will be separate from that of the co-requisite. The D2L website will contain the course syllabus, schedule, reading assignments, and other relevant course material. It is the responsibility of the student to regularly check (daily) D2L contents for updates.

COST
Costs related to the class include travel expenditures, i.e. building entrance fees, associated with a study abroad curriculum. The program organizers have attempted to foresee these costs in advance and account for them in the program budget. However, given the many variables of an in situ class structure, some unforeseen costs may arise. Additional costs associated with book purchases, drawing and modeling materials, etc., will total approximately $150.00.
COURSE CONTENT

CATALOGUE DESCRIPTION
The practical application of theoretical learning within a group setting and involving an exchange of ideas and practical methods, skills, and principles.

COURSE DESCRIPTION
A deep examination of the internalities and externalities influencing building envelope design logics will be explored through a series of Scandinavian case study analyses and documentations. Performance, material, assembly, and organizations will be revealed as an emergence from influential contextual analyses, including climate conditions, regional material resources, environmental policies, and socio-political influence. In addition, students will gain familiarity with continuums of regional craftsmanship and manufacturing intelligence influencing the historic development of building envelope techniques and assemblies. The building enclosure will be investigated as an interdependent, dynamic, and adaptive layer within the context of built and natural ecologies. Building enclosures will also be studied as the primary element forming outdoor urban spaces in the context of Scandinavian cities.

In reciprocity with Precedent and the Diagram course, students will develop critical building envelope drawings and representations based on built works incorporating spatiotemporal, biophysical, and cartographic documentation of intrinsic and extrinsic factors informing the envelope system logics. Students will be required to complement their research investigations with theory readings, such as those of deep ecologist Pentti Linkola or phenomenologist Juhani Pallasmaa, which will be uploaded on the D2L site. Students will be required to develop creative building envelope documentation (including film, animation, narratives, or drawings) suitable for an exhibit at CAPLA.

OBJECTIVES AND OUTCOMES
After taking this course, students should be able to:

1. Create visualizations and narratives describing the organizations of building enclosure systems as experienced from direct observation and site visits (empirical field research).
2. Contextualize the design of building enclosure systems within environmental, social, political, and/or theoretical circumstance (sourced research).
3. Identify basic compositions of building envelopes including aspects of materials and assemblies.
4. Identify the context and building program analysis required for determining performance aspects of building enclosure systems.
5. Identify the organizing principles associated with the design of building enclosure systems, especially with regards to the Scandinavian context and design culture.

STRUCTURE AND ORGANIZATION
The course structure and organization will work in parallel with the required course co-requisite and established travel itinerary set forth in the accompanying schedule. In situ examinations of existing precedent will serve as the primary basis for class teaching and learning. Students will take advantage of their time in these exemplary cities to explore, engage, and document the many spatial conditions encountered. There will be no dedicated, consistent classroom time – instead, field research will be the classroom with students spending time in the great public buildings and spaces located throughout our destinations (Stockholm Public Library and Helsinki University Main Library for example).

The course requirements are designed in support of a final project – the critical synthesis of a Scandinavian building precedent conveying enclosure system documentation, analysis, and contextualization. Student approach and focus will be determined on an individual basis as student interests emerge and develop from the analytical exercises assigned during our travels. In order to maximize our time and engagement with the unique precedents and places of our itinerary, the final project will be due to D2L two weeks after our return. The final project, along with the work from the Precedent and the Diagram, will be exhibited at CAPLA in lead up to 2016’s summer abroad offering(s).
COURSE COMPONENTS + CRITERIA OF EVALUATION

Given the range of student experience levels and backgrounds, course component expectations and outcomes will fluctuate based on individual majors and the extent to which they've been completed. Faculty will meet with each student during a pre-departure session to discuss and formalize the expectations for their coursework based upon background and experience level. The graded components of this course and their criteria of evaluation are:

JOURNAL
In situ examinations of buildings and their enclosure systems will be documented with a dedicated journal to be shared with the co-requisite, Precedent and the Diagram. Journal specifications will be distributed with options ranging from analog to digital and hybrid approaches in between. Journals are to be the repository for field research and analysis. Medium will not be specified, however at times key frameworks within which to make the student's examination will be stated – for example, a building enclosure concept analysis of Sverre Fehn’s National Museum of Architecture in Oslo.

ASSIGNMENTS
Directed exercises are designed to introduce and/or develop specific analytical and transformational diagramming techniques. Each assignment will address geographically specific notions of architectural production as a means to gain a deeper understanding into the underlying influences and trajectories propelling current Scandinavian design – for example, a phenomenological building envelope collage of a Helsinki architect authored building design. Assignment process will be documented in the field journal with a final supplemental composition uploaded to D2L.

PROJECT
The concluding exercise will be a critical synthesis of a building enclosure precedent of the students’ choosing under guidance, advising, and agreement from faculty. The student will utilize the empirical and observational documentation from their field journal in conjunction with sourced research for building context, environment, socio-political information, manufacturing and craft processes, and/or theoretical texts to critically develop synthetic information representing building envelope organizational concepts. This synthesis will reveal emergent information between building envelope design and technique cross-referenced to external influences. Final projects will be accepted in various formats, (including film, animation, narratives, and/or drawings), but shall exhibit quality and autonomously convey holistic and comprehensive synthesis of the building envelope concepts. Graduate students will be required to include a written paper with the submission of their final project.

WEIGHT (%)
The Course Components will be weighted as follows:

FIELD JOURNAL (Combined with Precedent and the Diagram) 30
ASSIGNMENTS
- Copenhagen 5
- Stockholm 5
- Oslo 5
- Helsinki 5
Subtotal 20
PROJECT
- Interim (Mock-up concept) 10
- Final (Grads Only: paper [10], project [30]) 40
Subtotal 50
TOTAL 100
REFERENCES
REQUIRED
Required readings will be posted to D2L from a selection of general texts and references listed below.

GENERAL

HISTORY-THEORY

CONTEXTUAL
“Hvittrask: a house in the forest; works of Eliel Saarinen.” Helsinki, Finland: Eino Ruutsalo, 1990. [videorecording]


**TECHNICAL**


Knaack, Ulrich and Tillman Klein, Eds. *The Future Envelope 2: Architecture, Climate, Skin.* [Internet Resource]


Passive House
http://www.passiv.de/en/01_passivehouseinstitute/01_passivehouseinstitute.htm


SEMINAR SCHEDULE
SEE ATTACHED SCHEDULE

POLICIES + STATEMENTS

GRADING
Evaluations will be distributed at intervals during the semester and will indicate performance according to the stated criteria of evaluation. Students are expected to use this system to monitor and adjust their performance and to seek additional support from the professor, as appropriate. Evaluations will be based primarily on student’s work, rather than effort expended. Students are expected to acquire knowledge and skill, not merely endeavor to do so.

LATE WORK
Work submitted after the deadline will be graded one or more letter grades below what would have been awarded had the work been submitted on time, appropriate to the length of delay.

INCOMPLETE WORK
Work submitted that is incomplete will be graded one or more letter grades below what would have been awarded had the work been complete, appropriate to the extent of incompletion.

GRADING SCALE
Grades will be defined as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Undergraduate Criteria</th>
<th>Graduate Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (90-100)</td>
<td>Excellence in most areas of evaluation, high competence in others.</td>
<td>Excellence to High Competence in most areas of evaluation.</td>
</tr>
<tr>
<td>B (80-89)</td>
<td>High Competence in most areas of evaluation, competence in others.</td>
<td>Very good to competent work in most areas of evaluation; fulfilled requirements.</td>
</tr>
<tr>
<td>C (70-79)</td>
<td>Fully met all course requirements with competence. (Competence: the answering of all requirements; adequate fitness, ability, capacity; sufficient for the purpose.)</td>
<td>Less than complete or competent work in some areas; requirements lacking and/or sub-standard quality.</td>
</tr>
<tr>
<td>D (60-69)</td>
<td>Less than competent work in one or more areas of evaluation. One or more requirements lacking and/or sub-standard quality.</td>
<td>Substantially incomplete or inadequate quality.</td>
</tr>
<tr>
<td>E (0-59)</td>
<td>Substantially incomplete work and/or work of an unsatisfactory quality.</td>
<td>Grossly inadequate.</td>
</tr>
</tbody>
</table>

Incomplete
Work left incomplete at the end of the semester due to circumstances beyond the student’s control. In co-convened and joint assignments, graduate students will produce a greater quantity and higher quality of work than their undergraduate counterparts in meeting these criteria.

GRADE APPEAL
Students who believe they have been unfairly graded should follow the multi-step procedure outlined in the CAPLA Grade Appeal:
http://architecture.arizona.edu/student-forms-and-procedures

ATTENDANCE
Students are required to attend all classes for their duration. Upon the 1st unexcused whole day absence, or the 3rd unexcused tardiness, the student will receive a 5% grade reduction on the final course grade.

EXCEPTIONS
All holidays or special events observed by organized religions will be honored for those students who show affiliation with that particular religion in writing in advance of the event.
Observances pre-approved by the UA Dean of Students will be honored, as listed at:
http://www.registrar.arizona.edu/religholidays/calendar.htm

EXCUSED ABSENCE
The Instructor may grant an Excused Absence for an outside educational opportunity at the request of the
Director or another instructor. Students granted an Excused Absence remain responsible for turning in
work on time, even if due on the excused date, as well as getting all information and assignments covered
during an Excused Absence. An Excused Absence does not count against the number of Absences
specified above.

EMERGENCY ABSENCE
The Instructor may grant an Emergency Absence for bona fide events outside the control of the student,
such as sudden serious illness requiring hospitalization, bodily harm, or immediate family emergency.
Emergency Absences must be certified by a professional in writing, such as doctor’s excuses, police
reports, or evidence of funeral; evidence must be submitted by the student within two weeks of the event
and must include the certifying professional’s contact information. “Immediate Family” is limited to
parents, children, stepchildren, and co-habiting partners and spouses. To qualify as an Emergency
Absence, an illness must be a true emergency (“requiring immediate professional medical attention”);
otherwise it will be treated as a standard Absence. Scheduled doctor consultations do not qualify.
Students granted an Emergency Absence remain responsible for turning in all work as well as for getting
all information and assignments covered, but may be granted extended deadlines. Instructors are not
obliged to grant Emergency Absences if the period missed makes it impossible for the student to achieve
a competent level of accomplishment consistent with expectations for the rest of the class.

DOCUMENTATION STANDARDS
A professional standard in contract documents insures that every page indicates sufficient information to
link it to its host set and, similarly, every drawing provides sufficient metadata that it is clearly linked to its
dataset. In keeping with this data standard, documentation in this course will comply with the following
standards:

PROJECT DOCUMENTATION
Every sheet of every project will indicate the following information on its face:

- course number
- semester/year
- professor
- student author(s)
- current date of the work
- page or sequence number

DRAWING DOCUMENTATION
Every drawing will indicate:

- drawing type (plan, section, elevation, perspective, axonometric, etc.)
- graphic scale
- orientation indicator (north arrow for plan; directional description for vertical projections (e.g., South
  Elevation; Perspective Looking North)
- reference indicators (section and elevation markers, blow-up references) that link the drawing to relevant
documents

ARCHIVE DOCUMENTATION
All work produced in fulfillment of University requirements becomes the property of, and may be retained
by, the School. Work shall be submitted for this course that demonstrates both the learning objectives and
the final project(s), as requested by the professor. Digital files shall be submitted in the following naming
convention:

ARC XXX_YYYY_CATEGORY_Lastname.F

where

1 A “DETAIL” is not a drawing type. Every drawing is a detail, considered from some perspective.
2 It is essential that all drawings have graphic scales, as notational scales are meaningless with digital documentation and
dissemination.
CLASSROOM BEHAVIOR + STUDIO CULTURE

The use of cell phones, pagers, electronic devices or other materials unrelated to course specific activities are not permitted during course hours; neither are unauthorized discussions amongst students or other disturbances.

All electronic media are limited to narrowcasting (headsets) at all times, set to a volume that is not audible to others. Per the University policy, non-assist animals are forbidden from University buildings.

Students are responsible for checking their UA email and course D2L sites Monday-Friday, at least once every twenty-four hours, for communications from the Professor.

Students are also responsible for activating a cell-phone service during the entirety for the study abroad program to facilitate communication in case of emergencies. Students shall additionally adhere to all policies and codes of conduct set forth by the UA Study Abroad Health and Safety risk management as introduced during the required pre-departure workshops. If faculty or teaching assistants become aware of any student behavior that places an individual or the group at risk, students may be required to terminate from the program at that time. Students are expected to maintain promptness for scheduled activities and site visits so as to not jeopardize the experience for others. Students shall use their best judgment including additionally conservative precaution when engaging in cultural activities outside of coordinated class hours. It is also highly recommended that students make use of a buddy system during non-class activities to ensure general safety and wellbeing.

ACADEMIC POLICIES

Academic policies can be found in The University of Arizona General Academic Catalog:

http://catalog.arizona.edu/allcats.html

For the principles, policies, and procedures governing issues of academic integrity, see:

http://deanofstudents.arizona.edu/codeofacademicintegrity.

PLAGIARISM

The practice of taking someone else's work or ideas and passing them off as one's own is known as plagiarism and is a serious violation of academic and professional ethics. The consequences for plagiarism are severe, including a failing grade for the course, suspension, or expulsion from the University per the UA policy on plagiarism: http://deanofstudents.arizona.edu/codeofacademicintegrity

TESTING: In any testing situation, whether graded or not, students shall not refer to outside resources (whether printed materials, such as books and journals, texts, Internet, e-mail, Google, instant messaging, or other resources) unless explicitly instructed to do so by the professor of record. Students operating digital devices in testing situations when not authorized to do so shall be assumed to be cheating.

CITATION: Plagiarism applies to the intellectual property of professional and public works, as well as to the work produced by peers. Students shall be assiduous in citing the work of others, whether in copying a graphic, either in part or in total, in quoting a text, or in building upon ideas, designs, or forms. Citation is used to give credit to the original author and to allow others to identify and trace source material.

Building upon the work of others is an inevitable part of learning and inherent to scholarship; hence it is an acceptable practice as long as the original sources are properly cited. Textual citations should follow the Chicago Manual Of Style. Citations of buildings and other designed works should include both a) project and b) source information:

a) project citation: the work’s name or title, its location, the name of its designer(s), and the date designed (or, if built, constructed).

b) source citation: the source from which the information or illustration of the work was obtained formatted according to the Notes and Bibliography format specified in the Chicago Manual Of Style:

http://www.chicagomanualofstyle.org/tools_citationguide.html
PRODUCTION: Using the labor of others, whether paid or freely given, offers the beneficiary an unfair advantage relative to peers and is prohibited unless expressly authorized in writing by the professor(s) of record.

THREATENING BEHAVIOR
All participants must follow the University of Arizona’s Policy on student behavior:
http://deanofstudents.arizona.edu/sites/deanofstudents.arizona.edu/files/disruptive_threat_bklt_web_0.pdf

ACCESSIBILITY AND ACCOMMODATIONS
Universal Design is the obligation of every architect and should be a quality of every environment. It is also the University’s goal that learning experiences be as accessible as possible. Students who anticipate or experience physical or academic barriers based on disability should contact the professor or Disability Resources (520-621-3268) to establish reasonable accommodations.
http://drc.arizona.edu/teach/syllabus-statement.html

RETENTION OF WORK
Work produced in this course is the property of the School of Architecture, which may retain any student project for display, accreditation, documentation, or other purposes.

CHANGES
This syllabus is subject to change with notice, as deemed appropriate by the instructor.

The purpose of a detailed syllabus is to make the course as transparent and as objective as possible, and thus to empower students to understand and earn the grades to which they aspire. It is not the intention of such a system to be used against learning or fairness.

Consequently, the professor retains the right to make adjustments that account for circumstances that were unforeseen when the course was designed and will notify the students when such changes are made. It may, for example, be advantageous to add or alter assignments or their criteria, or to modify criteria or project-weights, if it becomes evident that it is in the best interest of learning and fairness to do so. Students will notify the professor within one week of notification if such changes engender a hardship, after which time it will be agreed that students understand and are in accord with the change.

end of syllabus
Materials in this course may be copyrighted. They are intended for use only by students registered and enrolled in the course and are only for instructional activities associated with and for the duration of the course. They may not be retained in another medium or disseminated further without the written permission of the instructor. They are provided in compliance with the provisions of the Teach Act: http://www.copyright.com/Services/copyrightoncampus/basics/teach.html. Students should refer to University copyright policies: http://www.library.arizona.edu/help/tutorials/copyright/index.html

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