ARCH 2220/E: Sustainability and the Built Environment
Moore

Buildings, in their construction and operations, are one of the largest consumers of our natural resources---they have a tremendous impact on the environment. But architecture protects us, delights us, and gives structure and culture to our world in the form of landscapes and cities. The sustainability of the built environment is a global concern. Students will gain an understanding of the social, geographic, political, and economic factors, as well as the technological innovations that good design must harness to create a more sustainable future.

GE soc sci human, nat, and econ resources course.

Prereq: Not open to students with credit for 201 or 3rd and 4th year Arch majors.

3 credit hours

ARCH 2300/LARCH 2300/E: Outlines of the Built Environment
Moore

Introduction to architecture, landscape architecture, and planning as cultural practices that shape the physical environment.

Prerequisite for admission to ARCH and LARCH

3 credit hours

ARCH 2310/LARCH 2310: Introduction to Design
Kochar

Introduction to the design of the physical environment through the exploration of form, space, and order using drawing and modeling techniques.

Prerequisite for admission to ARCH and LARCH.

4 credit hours

ARCH 5120/E: History of Architecture II
Gargus

History of architecture from ancient to contemporary: historical inquiry, physical and cultural influences, theories, and analytical techniques. Continuation of 5110.

4 credit hours
ARCH 5290: Topics in Architectural Theory
Kipnis

Investigation of topics in architectural theory.

Prereq: Enrollment in Architecture major, or permission of instructor. Repeatable.

3 credit hours

ARCH 5290: Topics in Architectural Theory
Oubrerie

Title: Challenging Dominant culture? (at least partially?)

Bruce Goff, Bart Prince, kids of Frank Lloyd Wright. Or Bertrand Goldberg, who mixes Wright's organicism with Le Corbusier concrete (Frank Gehry does it formally sometimes, but not materially in some of his work) are examples of architects whose idiosyncrasies rebuke a real research and knowledge of their work and some times appreciation; however the extraordinary spatiality projected by Bruce Goff's Japanese Pavilion for the LACMA in Los Angeles (constructed by Bart Prince who had been his assistant) like many of his inventive works are quite ignored: overlooked actually in comparison to the enormous amount of work produced by the like of Zaha Hadid, Frank Gehry, Thom Mayne and others, which constitute the new dominant culture of today.

It is out of question to go back and grab the life-buoy of the good old tradition - this kind of architectural hybrid of greek temple frontons, Victorian lace-work and Dutch red brick country style, all mixed in the same pot, sometimes called New Something or Post-Modern (nothing to see with Derrida!) and so much visible around America!

It is out of question also to turn ourselves to the benefit given by the introduction of digitalization/fabrication which has made possible for each of us to produce quasi one project a day with this fantastic accessible skills that you quickly acquire. The actual research in this domain is oriented towards conceiving projects from the beginning digitally (no more traditional first hand-sketches then drawn with the computer).

But to do what? For what objective? What meaning?

It is to search one answer to this type of questions that I propose to turn towards some of these "underground" architects and study their work as they followed diverging roads from the mainstream of their time, as did Carlo Scarpa or Michael Webb and more.

So the objective of the seminar would be to explore this quite recent architectural hidden face, hoping to discover elements to reinvigorate the smooth continuous illimited and intertwined Hadidian spaces or the Frank's fragmented ones (think about the amount of tortured material surrounding the stage of the Millenium Park!) and discover some alternative to the predetermined results one can expect with each new project of our tenors!

Enrollment: 15 students maximum with priority to those registered for my studio as the project will be related to the Seminar Topic.

ARCH 5590: Topics in Building Technology
Murphy

Title: Drawing/Building

During this semester, the seminar will consider the issues and skills of drawing in relation to architecture: Freehand, constructed, by hand (definitely) and in the computer (maybe). Drawing will be studied as a means and an end through the study of projective systems, graphic analysis, and issues of representation in both art and architecture. Both the precision (+ intuition) of Michael Young and the looseness of Brice Marden will be utilized.

Students will have the opportunity to learn and practice freehand and constructed descriptive geometry techniques.

Prereq: Enrollment in Architecture major, or permission of instructor. Repeatable.

3 credit hours

ARCH 5590: Topics in Building Technology
Diles

Title: THIN THICK: LAMINAR COMPOSITE POCHÉ

INTRODUCTION

Isn’t architecture looking awfully thin? Just as fashion models have pared down their measurements to the narrow expectations of their industry, buildings also seem to be whittling down the dimensions of their basic elements. Once steel, reinforced concrete and float glass became the staples of architecture’s material diet; so too, did transparency, thinness and dematerialization become recurring tectonic obsessions. And just as a model’s gaunt elegance is gained through a regime of self-denial and suggests distaste for other types of beauty, so too, does an immaterial obsession in architecture inhibit the exploration of voluptuous modes of design and fabrication. Serious architecture has been on too strict a diet for the last 100 years; something’s gotta give...

INTENT

The Thin Thick seminar aims to disrupt architecture’s obsession with dematerialization by exploring more generous proportions for architectural elements. To do so, the course will explore two complementary topics: composites and poché. The latest addition to architecture’s material range, composites offer a fresh way of constructing light, strong laminar (thin) surfaces from fabric reinforcement infused with resin. Combined with poché as a strategy to enfold a building’s intimate spaces and internal systems, composites can enable thicker tectonic propositions. As assemblies, such propositions can be simultaneously thin and thick; both voluptuous and light; both structural and spatial; and both performative and differently sensual.
TECHNIQUES

To pursue a fresh exploration of architectural elements rich in poché, students will be presented with advanced digital surface design techniques and hands-on instruction in fabrication methods using composites. Architectural case studies and precedents in contemporary art will be used as departure points for considering how the tectonics of a wall can be reimagined and repurposed through voluptuous, poché-rich assemblies that perform both phenomenally and technically. Students will use digital models, drawings, 3D-printed physical models and molded composite prototypes to develop thick-thin tectonic assemblies from laminar surfaces over the course of the semester. Students will be trained to use KSA’s brand new five axis mill for making prototype molds. Group work will be permitted and encouraged given the hands-on, making-intensive nature of the class.

Prereq: Enrollment in Architecture major, or permission of instructor. Repeatable.

3 credit hours

ARCH 5590: Topics in Building Technology
Cruse

Title: Improving the Weather: On the Bond of Architecture and Energy

This seminar will examine relationships, both historical and contemporary, between architectural form and thermal vitality. Linking construction and combustion, sight and touch, we will examine how energy has and continues to be an important component of architectural expression. Contemporary discussions of architecture and energy often tend toward the moral imperatives created by climate change, the material limits imposed by resource constraints, or the financial benefit associated with conservation. Without denying these arguments, this seminar will use a wider lens with which to view specific buildings and texts to bring energy on par with form, space and tectonics as a theme driving architectural creation and debate. The seminar will be structured around class discussions of readings, as well as in-depth case studies by students organized around a series of themes including: heliophily, resilience, thermal delight, embodied energy and cooling.

Prereq: Enrollment in Architecture major, or permission of instructor. Repeatable.

3 credit hours

ARCH/LARCH/CRPLAN 5690: Design Competition
Kentner

Do you envision a more innovative built environment? Put your skills and ideas to the test and compete to win. Successful real estate development and design in the 21st century requires intensive collaboration across disciplines and sectors. In the Hines Competition, you will have the chance to form a multidisciplinary team with four other graduate students in the United States or Canada and tackle a real land use challenge in a U.S. city.
If you are interested in being a part of this student design competition next term, sign up for 5960 Design Competition for Spring. The class will run for the months of January and February. The competition will ask students to work in multi-disciplinary design teams on a large scale urban design project. Teams will be formed for both GRAD and UGRAD students.

This is an ideas competition with no expectation that any of the submitted schemes will be applied to any site. The winning team will receive $50,000 and the finalist teams $10,000 each. For more information, visit the Web site: udcompetition.org.

If you are interested in the course please plan to attend our first informational meeting next Tuesday at 5:30 in rm 178 of Knowlton Hall. Pizza and refreshments will be provided. More information on the design competition can be found on the ULI page linked above.

Prereq: Jr, Sr, or Grad standing. Repeatable to a maximum of 9 cr hrs or 3 completions.

2 credit hours