

ARC 520F INTERMEDIATE DESIGN STUDIO III: INTEGRATION

Fall 2018

MWF 1pm-6pm

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Office Hours TBD

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PREREQUISITES

ARC 520E or 520G; ARC 415L; and ARC 333 with a grade of at least C in each.

CURRICULUM FLAG

This course carries the Independent Inquiry flag. Independent Inquiry courses are designed to engage students in the process of inquiry over the course of a semester, providing a student with the opportunity for independent investigation of a question, problem, or project related to the student's major. At least one-third of the grade will be based on independent investigation and presentation of one's own work.

STUDIO TOPIC

While desirable, the competent resolution of the spatial, structural and mechanical aspects of a building is never a self-serving goal: Embedded in the very constitution of every building and its technical solutions is always – whether conscious or not – an attitude towards the environment it exists in, the people it serves, or the institution(s) it represents. If we believe in the agency of architecture as a cultural practice, then the very tools of architectural production such as form, space, structure, or material, can be seen to directly inform the possibilities for community and interaction. Decisions about the internal logics and logistics of a building thus exist as a complex exchange between scales and systems, between publics and users, and the conditions, histories, and constitutions of the city.

A Sanctuary

This relationship is further complicated when these conditions, histories, and users do not add up to form one single narrative, but present us with a series of individual stories, and – at times contradictory – attitudes towards a place, program or building. This semester's main project and site – the former immigration station of Angel Island in San Francisco Bay – confront us with such a place: during much of its history as an immigration station, the island was effectively a place of isolation and internment as much as a sanctuary. How can the fraught history today be transformed into a place of hope and contemplation? How can the individual experiences of Angel Island's past as well as the contemporary immigration process be channeled towards a space of collective significance? How can the basic elements of architecture such as structure, enclosure or material be employed in a meaningful way in support of such a conceptual ambition?

With a relatively simple program for a gathering space for naturalization ceremonies and community events, it will be our goal to go beyond the mere fulfillment of the performative aspect of the project. In the context of Angel Island each design decision about material, structure, or form, will have to be evaluated not merely based on performative aspects ("what

does it do?”), but equally on conceptual and narrative grounds (“what does it say?”). We will use iterative processes of precise structural, formal, and spatial inquiry to discover unanticipated relationships between form, site, and cultural context. Through the precise manipulation of these relationships we will address the challenge to develop an architecture of collective significance.

The semester is divided into three assignments. The first two assignments (2-3 weeks each) will temporarily isolate topics, methods, or scales of production, while the last assignment (9 weeks) extends previous design and research towards a comprehensive resolution of an architectural project in the city.

INTERMEDIATE DESIGN STUDIO

Students pursuing the Bachelor of Architecture must complete four Intermediate Design Studios during their second and third years. Building on the Foundation Design Studios taken during the first year, the goal of the Intermediate Studios is to prepare students for Advanced Design Studios in their fourth and fifth years.

Each Intermediate Studio will be structured around one of four broad themes of inquiry (Operational, Environmental, Integration, and Speculation) and will offer a critical framework and vocabularies for design and development into key issues emphasized in the theme. Intermediate Studios will also serve as a platform to prepare students for the range of offerings of the Advanced Studios (e.g. Comprehensive, Urban Design, Landscape Architecture, etc.). Intermediate Studios will follow a similar structure, but each instructor will individually determine the scope and design problem for each studio.

THEME: INTEGRATION

This studio emphasizes architecture as a tectonic expression through structural systems, construction methods and materiality, assembly, spatial and formal compositions, etc.

STUDIO STRUCTURE

Assignment #1: Research and Analysis “Extraction” (2 weeks)

15% of final grade

Students will work in teams

Between the extremes of collective and individual, between gathering and quiet contemplation, between openness and introversion, there is no one idea of what constitutes a “sanctuary”. In this assignment students will work in teams to examine buildings that constitute sanctuaries of different kinds. Each case will display specific operational and organizational strategies, a formal and structural logic, and material attitude. Particular attention will be given to the role of structure and material in relation to occupancy, hierarchy, and space. Case studies will be scrutinized across scales, ranging from the city to the detail. At the same time, the case studies provide a vehicle to situate the problem of the “sanctuary” within the evolution of the

discipline. The goal of this research is to generate a reference catalogue for the entire studio, which will introduce possibilities and limits of particular strategies, structures, and materials.

learning outcomes: Critical Thinking, Graphic Skills, Collaborative Skills

media: structural model, diagrams, drawings

readings: t.b.a.

Precedents (preliminary list, may be subject to change):

- Kimbell Art Museum, Louis Kahn
- Chichu Art Museum, Tadao Ando
- Sammlung-Goetz Gallery, Herzog & de Meuron
- Andalucia's Museum of Memory, Alberto Campo Baeza
- Capilla del Retiro, Santiago, Undurraga Devés Arquitectos
- Wheels of Heaven church, Also van Eyck
- Vals Thermal Baths, Peter Zumthor
- Youth Center in Amsterdam, Atelier Kempe Thill
- Bruder Klaus Chapel, Peter Zumthor
- Shibaura House, Kazuyo Sejima & Associates
- Kunsthau Bregenz, Peter Zumthor
- Sunset Chapel, Acapulco, BNKR
- Serpentine Gallery Pavilion, Peter Zumthor

Assignment #2: "Site / Projection" (2.5 weeks)

20% of final grade

Students will work in pairs

Assignment 02 will transition from the extraction of an operational strategy from a case study to its implementation facing the constraints of a specific site.

Step 1 - Site:

Students will start to gather relevant information on the site and its multiple context(s) – historical, cultural, ecological, geological, formal, infrastructural etc... We will begin by assessing the site through "objective" documentation, (drawings, models, diagrams) and then move towards a "subjective" appropriation of site and environment which will be conveyed through carefully constructed "affect" drawings.

Step 2 - Projection:

Working with selected strategies from the first assignment, student teams will creatively explore the possibilities of a given (structural/formal/material) logic against the pushback of the site. Where the first assignment extracted a set of systemic rules from a specific precedent, this assignment explores opportunities and limits for each strategy when facing the constraints of a

specific site. (A rigorous pushing of boundaries – even if eventually resulting in its ‘failure’ - is highly encouraged. Students’ inquiries should be guided by the question: “What if?”)

learning outcomes: Critical Thinking, Design Composition Skills, Graphic Skills, Collaborative Skills

media: study model, drawing, diagram

readings: t.b.a.

Assignment #3: A Sanctuary (9 weeks);

65% of final grade

Students will work individually

The main project for this semester will be the design of a “Sanctuary” on Angel Island in San Francisco Bay to both commemorate the history of immigration in the United States and perform as a contemporary gathering space to combine functions of a visitor and event center and facility for naturalization ceremonies. Program and site are the 2019 Lyceum-Fellowship Competition (<http://lyceum-fellowship.org/2019-competition.html>):

“The competition aims to explore how landscape and architecture as sanctuary and refuge can be coalesced to develop a place of multi-sensory contemplation and reconciliation. In broad terms, a sanctuary can be considered a place of refuge and protection, both in physical and psychological terms.”

“Proposals should provide a non-denominational, sanctuary to support past and present immigrants to the United States and SF Bay Area. They should provide places for quiet contemplation as well as areas to gather in community groups of various sizes.”

“The program will be approximately 4,000–6,000 square feet of delineated contemplation and gathering spaces as well as support functions, incorporating built and natural features of the adjacent landscape.”

(from the Competition brief)

In addition to the primary assembly space for a gathering of approximately 1,000, the program includes secondary spaces for smaller groups, individual contemplation spaces, and a small administrative hub. The program will demand a decisive conceptual attitude in relation to site and program. At the same time it provides opportunities for students to develop unique visions for how a “sanctuary” in the context of both historic and current immigration can be conceived.

The final project will be developed in three stages:

Phase 01: Conceptual Strategy

Phase 02: Architectural Strategy

Phase 03: Development

Each stage will have its associated scale(s) of inquiry and deliverables. In stages 1 and 2 students will develop conceptual, formal, and structural strategies for the entire site and program, while phase 03 will be the detailed development of the project at a higher resolution. Students interested in submitting their project to the 2019 Lyceum Fellowship Competition will have time to independently develop their projects towards the submission deadline of March 22, 2019.

learning outcomes: Code Analysis , Site Analysis and Design, Design Composition Skills, Graphic Skills, Understanding Sustainable Practices, Design Integration Skills
media: drawings, diagrams, models
readings: t.b.a.

LEARNING OUTCOMES

Students will be exposed to a series of learning goals several times and from different angles over the four Intermediate Studio sequence. The goal is that similar issues are repeated from studio to studio but from different angles, allowing students to find, within the diversity of the topics, a “common thread” as they go through the sequence of the four studios. The level of expectation will grow as students go from being introduced to an issue, to becoming competent at it. Some issues would be only mentioned in passing in one studio but will be studied in more depth in another.

- *Design Composition Skills:* Developed through three-dimensional architectural form and space, both exterior and interior; building envelope
- *Design Integration Skills:* Demonstrated through creative engagement with issues of materiality, structures, construction, and environmental system
- *Site Analysis and Design:* Developed through the creative engagement with relevant contextual; environmental and programmatic factors underlying the project
- *Critical Thinking:* Quality of conceptual and critical thought; learning from precedents; research skills
- *Graphic Skills:* Quality of presentation; clarity of communication; appropriateness of media strategy and level of skill displayed
- *Basic grasp of accessibility and egress*
- *Collaborative and Leadership Skills:* Demonstrated through the active engagement in all activities of the studio

STUDIO CULTURE

The School of Architecture believes in the value of the design studio model. Studio learning encourages dialogue, collaboration, risk-taking, innovation, and learning-by-doing. The studio offers an environment where students can come together to ask questions and make proposals, which are developed and discussed among classmates, faculty, visiting professionals, and the public-at-large. Studio learning offers intensive one-on-one instruction from faculty members, and provides the opportunity for each student to develop his/her critical thinking skills and spatial and material sensibilities. The design studio offers a synthetic form of education, where project-based learning becomes the foundation for developing an understanding of and commitment to the school's core values — broadmindedness, interconnectivity, professionalism, exploration and activism — all in service of architecture's fundamental mission: to improve the quality of the built and natural environments.

<https://soa.utexas.edu/programs/architecture/architecture-studio-culture>

DESIGN CONVERSATIONS: JESSEN LECTURES

The School of Architecture offers a wide range of opportunities for students to extend the design conversations taken place in studios (Lecture Series, Goldsmith Talks, Exhibitions, etc). Students are encouraged to participate and be engaged. Specifically, all B.Arch and BSAS students in studio are expected to attend all the Jessen Lectures (three per semester by lead practitioners from around the world). The lectures and the group discussions in studio that follow are important for the holistic education of intellectually engaged students and participation will have an impact on students' grades (see below).

EVALUATION CRITERIA

While each project contains certain quantifiable elements for evaluation, a significant portion of each grade is derived from broader and more subjective criteria.

Student work will be evaluated according to its rigor and evolution over the semester. Grades are subject to deductions for late arrivals, absences, and late or incomplete work at the discretion of the instructor.

Grading for an assignment is broken into four components, each of which is given roughly equal weight:

Pursuit: the consistent and rigorous development and testing of ideas.

- The ability to formulate a query or thesis and pursue a self-determined concomitant method of inquiry
- The ability to identify and implement various processual mechanisms (software, sketch drawing and models, etc.) in the development of the design
- Initiative as demonstrated in work ethic – Does the student do what is asked; go beyond what is asked; direct their own efforts; eager to produce the next iteration of the design?

Grasp: the ideas and understanding of the project at hand and integration of knowledge introduced in companion courses.

- A strong and clearly stated design objective
- Spatial acuity as demonstrated in plan – including reasonable disposition of programmatic elements – and sectional development
- Synthetic and critical thinking; the ability to holistically organize a project as demonstrated through creative engagement with issues of materiality, structures and construction, structural and environmental system integration, building materials and assembly, sustainable practices, etc. in support of the design objective
- Structural competence and material sensitivity as demonstrated in wall thickness, floor plates, and assembly

Resolution: of the design objective; the demonstration of competence, completeness, and finesse in the final design presentation.

- Quality of presentation; clarity of communication; appropriateness of media strategy and level of skill displayed through the work presented at all stages of the design process; technical documentation

Engagement: the active participation in studio activities, leadership, collaboration, group discussions and reviews.

A student must earn a letter grade of C or better in order for the course to count towards a degree in the School of Architecture and to progress in to the next studio. A letter grade of C- will not satisfy degree requirements.

GRADE DESCRIPTIONS

A/A-	Excellent Project surpasses expectations in terms of inventiveness, appropriateness, visual language, conceptual rigor, craft, and personal development. Student pursues concepts and techniques above and beyond what is discussed in class. Project is complete on all levels.
B+/B/B-	Above Average Project is thorough, well presented, diligently pursued, and successfully completed. Student pursues ideas and suggestions presented in class and puts in effort to resolve required projects. Project is complete on all levels and demonstrates potential for excellence.
C+/C	Average Project meets the minimum requirements. Suggestions made in class and not pursued with dedication and rigor. Project is incomplete in one or more areas.

C-/D+/D/D- Poor

Project is incomplete. Basic grasp of skill is lacking, visual clarity or logic of presentation are not level-appropriate. Student does not demonstrate the required competence and knowledge base.

F Fail

Project is unresolved. Minimum objectives are not met. Performance is not acceptable. Note that this grade will be assigned when students have excessive unexcused absences.

X Excused Incomplete

Can be given only for legitimate reasons of illness or family emergency. Simply not completing work on time is not an adequate cause for assigning this evaluation. It may only be used after consultation with the Associate Deans' offices and with an agreement as to a new completion date. Work must be completed before the second week of the next semester in which the student is enrolling, according to the School of Architecture policy.

ATTENDANCE

Punctual and regular attendance is mandatory. Participation is expected. With three (3) unexcused absences, the student's final grade for the course will be lowered by a full letter grade. The final grade will be lowered by a full letter grade for each unexcused absence thereafter. Aside from religious observances, absences are only excused with written documentation of a medical issue or family emergency. The student is responsible for completing work missed due to excused absences and initiating communication with the instructor to determine due dates.

If a student is late (5 minutes after the start of class) three (3) times, it will be counted as one (1) unexcused absence. Students should notify the instructor prior to class if lateness or absence is known in advance. Students must notify instructors directly regarding lateness or absences; Asking a classmate to inform the instructor is not acceptable.

RELIGIOUS OBSERVANCES

A student shall be excused from attending classes of other required activities, including examinations, for the observance of a religious holy day, including travel for the purpose. A student whose absence is excused under this subsection may not be penalized for that absence and shall be allowed to take an examination or complete an assignment from which the student is excused within a reasonable time after the absence. University policy requires students to notify each of their instructors as far in advance of the absence as possible so that arrangements can be made.

By UT Austin policy, you must notify the instructor of the pending absence at least fourteen days prior to the date of a religious holy day. If you must miss a class, an examination, an assignment, or a project in order to observe a religious holy day, you will be given an opportunity to complete the missed work within a reasonable time after the absence.

ACADEMIC INTEGRITY

Students who violate University policy on academic integrity are subject to disciplinary penalties, including the possibility of failure in the course and/or dismissal from the University. Since such dishonesty harms the individual, all students, and the integrity of the University, policies on academic integrity will be strictly enforced. Refer to the Student Conduct and Academic Integrity website for official University policies and procedures on academic integrity: <http://deanofstudents.utexas.edu/conduct/academicintegrity.php>. University Code of Conduct: <http://catalog.utexas.edu/general-information/the-university/#universitycodeofconduct>

MENTAL HEALTH AND SUPPORT SERVICES

Taking care of your general well-being is an important step in being a successful student. If stress, test anxiety, racing thoughts, feeling unmotivated, or anything else is getting in your way, there are options available for help:

- In-house CARE counselor (see below)
- For immediate support
 - Visit/call the Counseling and Mental Health Center (CMHC):
M-F 8am-5pm | SSB, 5th floor | 512-471-3515 | cmhc.utexas.edu
 - CMHC Crisis Line:
24/7 | 512-471-2255 | cmhc.utexas.edu/24hourcounseling.html
- Free services at CMHC:
 - Brief assessments and referral services: cmhc.utexas.edu/gettingstarted.html
 - Mental health & wellness articles: cmhc.utexas.edu/commonconcerns.html
 - MindBody Lab: cmhc.utexas.edu/mindbodylab.html
 - Classes, workshops, and groups: cmhc.utexas.edu/groups.html

CARE PROGRAM

Counselors in Academic Residence (CARE) Program places licensed mental health professionals within the colleges or schools they serve in order to provide better access to mental health support for students who are struggling emotionally and/or academically.

Abby Simpson (LCSW) is the assigned CARE counselor for the School of Architecture. Faculty and staff may refer students to the CARE counselor or students may directly reach out to her. Please leave a message if she is unavailable by phone.

Abby Simpson, LCSW | BTL 114B | 512-471-3115 (M-F 8am-5pm)
https://cmhc.utexas.edu/CARE_simpson.html

STUDENTS WITH DISABILITIES

Students with disabilities who require special accommodations must obtain a letter that documents the disability from the Services for Students with Disabilities area of the Office of the Dean of Students (471-6259 voice or 471-4641 TTY for users who are deaf or hard of hearing). This letter should be presented to the instructor in each course at the beginning of the semester and accommodations needed should be discussed at that time.

<http://diversity.utexas.edu/disability/>

SECURITY, SAFETY, AND SUSTAINABILITY

The studio is an exceptional learning environment. Since it is a place for all, it necessitates the careful attention to the needs of everyone. All spraying of fixative, spray paint, or any other substance should be done in the shop. Security is a necessary component for a studio that is accessible to you and your colleagues 24 hours a day, 7 days a week. Do not leave your studio without your studio key and do not leave your studio unlocked. Hold yourself and your studio mates accountable for the security of your shared space.

The studio is an opportunity to apply sustainability principles, being mindful to recycle and reuse to reduce material consumption at UTSOA. Recyclable materials should be placed in blue bins or any other containers with white bags. The Material Exchange, a give-and-take system for students to donate materials and take what they need for studio and fabrication coursework, is available throughout the semester to all UT students in the UTSOA Technology Lab. All unwanted, reusable materials should be brought to the Material Exchange station in the Technology Lab at the end of the semester.

BCAL

Concerns regarding the safety or behavior of fellow students, Teaching Assistants (TA), or Professors can be reported to the Behavior Concerns Advice Line (BCAL): 512-232-5050. Calls can be made anonymously. If something doesn't feel right, it probably isn't. Trust your instincts and share your concerns.

EMERGENCY EVACUATION

In the case of emergency evacuation:

- Occupants of buildings on The University of Texas at Austin campus are required to evacuate buildings when a fire alarm is activated. Alarm activation or announcement requires exiting and assembling outside.
- Students should familiarize themselves with all exit doors of each classroom and building they may occupy. Remember that the nearest exit door may not be the one used when entering the building.
- Students requiring assistance in evacuation shall inform their instructor in writing during the first week of class. In the event of an evacuation, follow the instruction of faculty or class instructors.
- Reentry into a building is prohibited unless given instructions by the following: Austin Fire Department, The University of Texas at Austin Police Department, or Fire Prevention Services offices.

Information regarding emergency evacuation routes and emergency procedures can be found at: www.utexas.edu/emergency.

RECOMMENDED RESOURCES:

Ideas

- Allen, Edward, *The Architect's Studio Companion: Rules of Thumb for Preliminary Design* (Hoboken, NJ: Wiley, 2007)
- Allen, Stan, *Points + Lines: Diagrams and Projects for the City* (excerpts) (New York: Princeton Architectural Press, 1999).
- Banham, Reyner, *The Architecture of the Well-Tempered Environment* (excerpts) (Chicago: University of Chicago Press, 1969).
- Burns, Carol J., and Andrea Kahn, eds., *Site Matters: Design Concepts, Histories, and Strategies* (New York: Routledge, 2005).
- Frampton, Kenneth, *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*, John Cava, ed. (Cambridge, MA: The MIT Press, 1995).
- Kiel Moe *Integrated Design in Contemporary Architecture* (New York: Princeton Architectural Press, 2008)
- Thomas, Randall, ed., *Environmental Design: An Introduction for Architects and Engineers* (New York: E & FN Spon, 1996)

Systems

- Allen, Edward, *Fundamentals of Building Construction: Materials and Methods* (New York: Wiley, 1999).
- . *The Architect's Studio Companion: Rules of Thumb for Preliminary Design* (Hoboken, NJ: Wiley, 2007)
- Brookes, Alan, and Grech, Chris, *Connections: Studies in Building Assembly* (New York: Whitney Library of Design, 1994)
- Brown, G.Z., Sun, *Wind & Light: Architectural Design Strategies* (New York: Wiley, 2001).
- Ching, Frank, Cassandra Adams, *Building Construction Illustrated* (New York, Wiley, 2001)
- Finley, Dawn, and Mark Wamble, "Notes on System Form: The Rest of the World Exists," in *Perspecta*, Vol. 34 (2003), pp. 110-117.
- Ford, Edward, *The Details of Modern Architecture*, vols. 1 & 2 (Cambridge, MA: MIT Press, 1990 & 1996)
- Kieran, Stephen, and James Timberlake. *Loblolly House: Elements of a New Architecture* (New York: Princeton Architectural Press, 2008).
- . *Refabricating Architecture: How Manufacturing Methodologies Are Poised to Transform Building Construction* (New York: McGraw-Hill Companies, Inc., 2004).
- Kwok, Alison and Walter Grondzik, *The Green Studio Handbook: Environmental Strategies for Schematic Design* (New York: Architectural Press, 2006)
- Oesterle-Liev-Lutz Huesler, *Double Skin Facades, Intergrated Planning* (London: Prestel, 2001)

Materials

- Ball, Philip, *Made to Measure: New Materials for the 21st Century* (Princeton, NJ: Princeton University Press, 1997).
- Bielefeld, Bert, and Isabella Skiba, *Technical Drawing* (Basel: Birkhäuser, 2007).
- Brookes, Alan, and Grech, Chris, *The Building Envelope*
- Brownell, Blaine, ed. *Transmaterial: A Catalog of Materials that Redefine Our Physical Environment* (New York: Princeton Architectural Press, 2006).
- Kolarevic, Branko, and Kevin R. Klinger, eds., *Manufacturing Material Effects: Rethinking Design and Making in Architecture* (New York: Routledge, 2008), pp. 25-46.
- Schultz, Helmut C., *Steel Construction Manual* (Basel & Boston: Birkhäuser, 2000).
- Schittich, Christian, *Glass Construction Manual* (Basel, Birkhäuser, 2007)
- Fuchs Matthias, *Construction Materials Manual* (Basel, Birkhäuser, 2006)

Codes

- Ching, Francis D.K., and Steven R. Winkel, *Building Codes Illustrated: A Guide to Understanding the 2000 International Building Code* (Hoboken, NJ: John Wiley, 2003).
- *International Building Code* (Country Club Hills, IL: International Code Council).

Periodicals

- Detail
- El Croquis
- The Plan
- GA: Global Architect