Unlimited Pedagogy
New Experimental Spaces for Educating Designers

Instructor:
Mitchell Joachim, PhD <mj@terreform.org>

Class Times:
Monday 12:30 PM - 4:45 PM (Lab Time TBA)

Description:
The studio aims to take a close look at the relationship between the design school as an evolving program and the environment that houses it. In this light, the physical environment is not just a neutral background or a static container, but rather an active agent, engaged in the life of a school on a number of levels. It shapes the ways in which students interact with faculty and with each other. Space plays a fundamental, if silent role in promoting collective activities and supporting individual pursuits. It functions as a bridge between the germ of experiment, present at the heart of all innovative schools, and the perpetuation of tradition, a vital sign of any reputable institution. Ultimately, it is the grafting of those pedagogical practices onto their environment that not only makes a place, but also gives rise to and shapes the ever-present, yet intangible culture of a school, and its unique disciplinary form – the studio. The studio is divided into two main sections: analysis and design.

The first section investigates a selection of experimental design schools loosely structured according to five educational models. The analytical section of the assignment is twofold, aiming to examine and visualize both the pedagogical structure of a school and its architecture with respect to site, program distribution, spatial organization, as well as quintessential design school environments, such as studio and review spaces. As part of the analysis students are expected to produce a set of diagrams, including flow charts and axonometric drawings, supplemented with appropriate building and pedagogy documentation. It is important to treat each individual case study both systematically and as a collective body of work. Bringing this diverse set of projects to a common denominator, both methodologically and graphically, would not only allow for a comparative overview, but will help reveal any implicit and explicit relationships between design pedagogies and their environments.
The second section of the studio focuses on the design of a Smart Dock for the NY School for Design and Science at the Navy Yards in Brooklyn. Students are asked to develop a prototype for a new type of experimental design school integrating interdisciplinary learning, studio-based design, collaborative space, DIY projects, maker culture, advanced fabrication, high-throughput computation, and bio hacking. The Smart Dock should address the future of learning environments that inflects the trajectory of experimental education into the new spaces of socio-ecological design in times of climate change. Final Smart Dock size, site and program are all open for interpretation.

**Learning Objectives:**
What is the future of design learning, as many educators believe the pedagogical system in place today is insufficient or too cumbersome? The intention of this studio is for the student to develop an understanding of the history and theory that encompass the methods of educating architects. A significant weight will be on the critical analysis of ecological design claims in specific learning contexts.

Each student will create a descriptive synthesis of one or more significant experimental schools of design i.e. AA, Bauhaus, Rural Studio, Why Factory, Media Lab, Strelka, SCAD, Cooper, and etc. Describe how that institute created newly formatted educational spaces, facilities, methods, and cultures that manifested radical shifts for design pedagogy. Discuss in detail the seminal interactions between students and teachers that lead to architectural/design revolutions. Focus on key typological and technological changes that allowed for a particular faculty to break away from existing normative models. Example: the Bauhaus was a clear departure from the Beaux-Arts because the industrialized world economic models privileged the promise of machine assembly over human-centered craftsmanship.

**Texts:**
Education of an Architect by John Hejduk.
Architecture School: Three Centuries of Educating Architects in North America by Joan Ockman.
Programs and Manifestoes on 20th-Century Architecture by Ulrich Conrads.

**Experimental Design Schools: Analysis**
Below are the recommended issues for analysis of the pedagogy/school and the place/building. Those are meant to serve as a starting point rather than set guidelines, as each case study would inevitably dictate its own rules and ideas for inquiry. It is important to be mindful of a school not just as static establishment, but also as an evolving, dynamic system. A certain period in a school's educational history might be identified as most salient, having reached a certain plateau, and used as an exemplar. Likewise, school buildings and sites might undergo change thus becoming not just spatial but also temporal conditions. Appropriate diagrammatic strategies, such as timelines, sequences, and series, may be used to address this.
It is up to each student group to tease out the intersection of pedagogy and place, define its terms and develop representational strategies both individually and as a group. Standard parameters cutting across the case studies, such as school size or scale, will help establish consistency and the grounds for comparison. Shared themes, such as the character and typology of the studio environment, may emerge as a common thread among otherwise diverse case studies.

**Characteristics of Design Pedagogy/School:**
History (showing lifespan from foundation to closing, school timeline)
Context (part of a larger university vs. a stand-alone institution // site mapping)
Size (number of faculty and students, most representative stage or over time)
Structure (representative “plateau” stage or over time)
Program (the degree granting programs and curriculum)
Pedagogy (highlights – key courses and projects)
People (key teachers / teacher-practitioners and students)
Environment/BUILDING
Massing Configuration/ PARTY (3D diagrams showing perceptually dominant formal configuration of the environment; where applicable for the site as well; may serve as a base for scale comparison among the case studies, to be drawn at the same relative scale)
Programmatic Distribution (diagrams of the functional distribution of the environment, in particular studio vs. non-studio spaces)
Spatial Organization (general organization of the environment, diagrams of dynamic vs. static components, circulation)
Key Spaces (typology, character, size, position of specific spaces, such as studios, review spaces, workshops, classrooms, etc. and the relationship between them; in addition to 3D diagrams, graphs such as “pie chart” showing areas of Studio vs. Non-Studio Ratio in each case study may be included)
Reciprocity (“free” representation, addressing the main question of the seminar – about the relationship of architecture school environment and design pedagogies)

EXPERIMENTAL DESIGN SCHOOL LIST
TYPE I WORKSHOP
Bauhaus, Weimar/Dessau/Berlin
VKHUTEMAS, Moscow
Cranbrook, MI
SCAD, Savannah

TYPE II UNIVERSITY/ IVY
Cornell School of Architecture
Harvard GSD
GSAPP Studio X
Yale School of Architecture

TYPE III ARTS + CRAFTS/ APPRENTICESHIP
AA, London
Cooper Union, New York
IAAC, Barcelona
SciArc, Los Angeles

TYPE IV ACTIVIST/ INDEPENDENT/THINK-TANK
WHY Factory, TU Delft
Rural Studio, Alabama
Strelka, Moscow
Berlage Institute, Amsterdam

TYPE V TECH/ ONLINE
EdX
MIT Media Lab
TED Ed
**Assessment Measures:**
Quality and control of information and graphical output is paramount. All material is to be drawn in a clear, graphically legible way – black & white – unless otherwise stated. All information is to be composed on boards (size TBD) and/or PowerPoint for reviews and pinups. As a rule, axonometric projection, such as 30-60 plan oblique, may be used. Consistent format, page layout, font, graphic notation are to be used throughout.

**Grading Criteria:**
Attendance is mandatory. There is no substitute for working and participating in class. If a student fails a class due to attendance, he/she is no longer permitted to attend the class. Absence will impact final grade. Undo tardiness following a given break will result in an absence. Leaving before the class is over is considered an absence. Three absences are grounds for failure.

**Tardiness:**
Two tardies will be counted as one absence. Ten minutes late considered tardy. Over 20 minutes late is considered absence.

**Academic Warning:** Students who do not complete and submit assignments on time and to a satisfactory standard will fail the class. It is the student responsibility to obtain missed assignments from other classmates and make up work in time for the next class.

**Evaluation and Grading:** Based on projects, participation and attendance. In order to receive a grade, students must complete all assignments, participate in class and maintain a sketchbook.

**Grade Description:**

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<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>4.0 Outstanding quality</td>
<td>A-</td>
</tr>
<tr>
<td>A-</td>
<td>3.7 Excellent work</td>
<td>A</td>
</tr>
<tr>
<td>B+</td>
<td>3.3 Work of high quality</td>
<td>B</td>
</tr>
<tr>
<td>B</td>
<td>3.0 Very good work</td>
<td>B-</td>
</tr>
<tr>
<td>C</td>
<td>2.3 Average</td>
<td>C-</td>
</tr>
<tr>
<td>C-</td>
<td>2.0 Adequate</td>
<td>C</td>
</tr>
<tr>
<td>D</td>
<td>1.7 Passing work</td>
<td>D-</td>
</tr>
<tr>
<td>D-</td>
<td>1.0 Below avg.</td>
<td>D</td>
</tr>
<tr>
<td>F</td>
<td>0.0 Failure</td>
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**Academic Integrity:**
Integrity of scholarship is essential for an academic community. RPI expects that both faculty and students will honor this principle and in so doing protect the validity of intellectual work. For students, this means that all academic work will be done by the individual to whom it is assigned, without unauthorized aid of any kind.