Climate change learning experiences have tended to be confined within ‘business as usual’ parameters. There has been minimal recognition of the need to engage learners in openly debating and discussing the roots, personal meanings, and societal implications of climate change scenarios that are likely to play out during their lifetimes ...

Fumiyo Kagawa and David Selby, 2010

Public education must be the great equalizer for our children – regardless of zip code, family income, racial or gender identity, home language, behavior and/or learning differences.

Janice Corona
4.023 - Elementary Studio - delves into the design of public elementary schools to discuss hope during turbulent times—and, at the same time, exploring and emphasizing the need for change. We will be asking questions such as: How can we employ design as our toolkit for change? Who is impacted and how do we develop design empathy? Students will be encouraged to choose significant topics such as climate change and/or cultural diversity and explore them through the lens of tactile, playful, multi-scalar, multi-sensory heuristic education. Readings from educational philosophers such as John Dewey, Loris Malaguzzi, Maria Montessori and environmental education such as David Orr, will be paired with guest elementary school teachers to inform student project proposals.

The elementary school program is a rich setting to develop architectural skills through designing site, form, concept, scale and materiality; from indoor reading nooks to outdoor flora and fauna the imagination of students and openness to learning can take flight. Students will learn how to design through various two-dimensional and three-dimensional media and how to ground these ideas and designs through specific oral and written pieces that try to capture and translate the essence of design for the reader/viewer.

In the first half of the semester we will host a series of short assigned readings and drawings that we will use as a springboard for discussing and vetting budding ideas. These short exercises build toward your final design project. Each exercise will explore an iterative process of space and form-making operations. Students will be encouraged to engage and play with the nexus of social, environmental and formal explorations.

Pedagogical Learning Objectives

1. Understand scale
2. Discern clear representation to express meaning through diagram, plan/section, axon, perspective
3. Form-making physical and virtual to express meaning through materials, model making, casting
4. Develop concepts and understand symbolism
5. Design iteratively for interior/exterior spaces public/private, varied environments and landscapes
6. Design for adjacencies, connected programs
7. Design a building within in its urban/rural context
8. Strengthen verbal and written communication skills

Written and Oral Communication

As part of the design process, students will be required to communicate their design ideas/concepts/theses, in writing. Students will produce 1-2-page project descriptions expressing their design intentions throughout the semester. Cherie will hold writing sessions with you one-on-one and as a group to help you focus on and improve the clarity of your writing. These writing exercises will be timed before major reviews to help you structure their presentations. Feedback will be provided continuously throughout the semester.

Cherie will hold 2-3 workshops on communication strategies for writing and presenting. Seminars will be held during regular studio hours and each session will be approximately 30 mins. These workshops are designed to prepare students for their formal review presentations.

Evaluation

The final grade will represent the balance of attendance, verbal participation, and engagement in discussions, completion assignments and the quality of work produced in the studio. The grading will include individual growth over the semester. There will be an emphasis on clarity and originality. Students will be asked to give permission for MIT to share and publish their work.
Students will be asked to submit their work as a grading requirement for MIT.
20% Mini Pin ups
20% Mid Review
20% Final Presentation
20% Writing and Oral presentations
20% Participation, assignments positive attitude and improvement over the course of the semester

Evaluation Criteria and Grading
1. How clearly are you articulating your conceptual intentions?
2. How well are you using your concept to develop a spatial and architectural response to given problems?
3. How accomplished are you with drawing, modeling, digital representation? To what degree do your representations convey your intentions?
4. How clearly are you presenting your ideas orally, whether at your desk, in class discussions, or to a more formal jury?
5. How actively and how constructively are you involved in class discussions, both formally and informally?
6. How do you effectively take advantage of criticism from instructors, your classmates and outside jurors?
7. To what extent are you able to critique your own work regularly and effectively?
8. How generous are you in sharing tips and ideas with classmates?

DETAILED INFORMATION FOR EACH WEEK
Overall, the goal of providing this detailed design for the class is to help you to produce something -- a diagram, a drawing, a collage, a model each week. By completing at least one drawing each week, we will build toward the final design of the elementary school. Design is a process; it grows, changes and provides feedback to its designer as the process takes place. Every step you take, even if you change your mind later, helps you find the right pathway forward. Below is a detailed outline of the plan for each class. Assignments, readings and tutorials will be distributed each week.

   Week 1 – Introduction
   Week 2 – Plans, Sections, Elevations and Models
   Week 3 – 3D Models and Section Perspectives
   Week 4 – Positions, Philosophies and Precedents
   Week 5 – Site - Capturing and Prioritizing
   Week 6 – Concept
   Week 7 – Scale
   Week 8 – Views
   Week 9 – Mid-review
   Week 10 – Project Development
   Week 11 – Project Development
   Week 12 – Penultimate Review + Thanksgiving Break
   Week 13 – Final Presentation Material
   Week 14 – Final Presentation Material
   Week 15 – Final Presentation + Submission

Supplies
Student should already have or should purchase (discuss on the first day of class)
Sketchbook, around 8½ x 11 inches size
Trace paper roll
hb and 2b lead pencil
Eraser
Glue
x-acto precision knife
Box of x-acto precision knife blades
OLFA knife
Metal straight edge ruler with cork padding
Architectural ruler
Cutting Mat
Chipboard 1/16

*Optional - you may want to purchase other model making supplies. We will discuss more later in the semester.

Communication with Your Professors
Communication is essential to a healthy studio process. Students are encouraged to reach out to faculty at any time for questions or issues. Please do not hesitate to reach out (call/email/text/slack) to the professors and the TA should you have any suggestions or concerns.
Miho Mazereeuw mmaz@mit.edu 857-389-3502
Cherie Miot Abbanat abbanat@mit.edu 617-320-1136
Ekin Bilal ebilal@mit.edu 607-379-1299

Disabilities
If you have a documented disability, or any other problem you think may affect your ability to perform in class, please see me early in the semester so that arrangements may be made to accommodate you. For MIT’s policy on accommodations for disabilities, please follow this link http://mit.edu/uaap/sds/students/

Academic Integrity
Massachusetts Institute of Technology students are here because of their demonstrated intellectual ability and because of their potential to make a significant contribution to human thought and knowledge. At MIT, students will be given unusual opportunities to do research and undertake scholarship that will advance knowledge in different fields of study. Students will also face many challenges. It is important for MIT students to become familiar with the Institute’s policies regarding academic integrity, which is available at Academic Integrity at MIT: A Handbook for Students.