

Architecture Studio: Foundation II / 1st Year Spring

Spring 2016, CMU, Arch #48-105, M/W/F 1:30-4:20
Studio Website: www.andrew.cmu.edu/course/48-105

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Off. Hr: by appt. in MM302

(1/11/16)

Proj.1: MARBLE PERFORMANCE - Modeling Surfaces

Proj.1, ASSIGNMENT 1 - IN CLASS Mon. 1/11

Ghost Tag: #48105_p1_a1

In 15 minutes, shape an 11x17 piece of paper by folding, bending, and cutting, but without crumpling or gluing, to achieve two goals: 1) make a marble move at least 10" across the surface using only gravity and your paper structure, and 2) make your marble stop with conviction, using only the paper and your shaping of it.

Develop many ideas or design variations. Study both the movement, choreography, or performance of the marble, AND the design of the paper structure or stage. Refine and unify the relation between form and performance: work to design a single coherent entity, not just an accumulation of moves.

For your marble's performance:

- create versions with a single, pre-defined marble path or line, and others with more random or open ended rolls across a surface, and hybrids
- begin to compose or choreograph a narrative for your marble's performance, such that it has beginning, middle, and end. Consider using inspirations from music, dance, film, or literature to inform your narrative

For your paper structure:

- work on improving/varying the structural rigidity through folding & geometry
- connect more than one sheet to create bigger structures
- begin to cut the paper strategically to enhance form and performance
- in subsequent iterations, allow yourself to use minimal tape or glue

Work quickly at first to explore many options: make a lot. Design is an iterative process: often a process of trial and error, with good ideas, and failed experiments. You will not get it "right" on the first try. But by speculating, imagining, making, seeing, critiquing and reworking, you will learn with each attempt. Build upon this "tacit" knowledge as you move forward. Do not be afraid to make and test ideas, or partial ideas, that may not work, as these can yield surprising results later on.

Create diagrams or conceptual sketches of your models after each iteration. Also attempt to design an idea in a quick sketch, and then attempt to model it in paper. Save and record each design, sketch, and iteration with at least one photo. Post process images to a studio-specific board in your Pinterest page (www.Pinterest.com).

Gather with classmates and instructors to share, discuss, and critique your first ideas. Work to articulate your thoughts, process, and results precisely; be clear. Learn from your neighbors and instructor; be flexible and allow your ideas to change. Be self-critical; announce your own "mistakes" or "failed ideas." Deepen your concepts.

Proj.1 LEARNING OBJECTIVES:

Students will improve abstract design and critical thinking skills as they:

- distinguish between designing an object, and the performance it enables.
- understand "performance" in multiple ways, with multiple performance criteria
- explore ideas of space, structure, and performance in non-orthogonal geometries
- investigate the relations of point-line-plane-surface, and motion-path-topography
- practice designing and modeling complex surfaces, including "discretizing" them into smaller and simpler, aggregated components
- use systems, especially geometry, to develop rigorous, describable solutions
- develop ideas across multiple media, including 1:1 physical models, quick sketches, diagrams, and more detailed geometric understanding in Rhino
- improve craft in drawing and modeling, 2D and 3D, analog and digital
- work iteratively, to imagine and create multiple solutions to all given problems
- focus on reflective design practice, incorporating feedback to improve performance
- become more conscious of, and articulate more precisely the design process

