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

Coordinator: Kai Gutschow
Email: gutschow@andrew.cmu.edu
Off. Hr: by appt. in MM302

(1/16/16)

Proj.1: MARBLE PERFORMANCE - Modeling Surfaces

The goal remains the same: create a marble moving structure out of paper that synthesizes the movement/performance of the marble, AND the design of the paper structure/stage into a single, memorable design.

Proj.1. ASSIGNMENT 3 - DUE Fri. 1/15   Ghost Tag: #48105_p1_a3

   Using the Rhino skills introduced in the demo today, create 3-5 different Rhino models using extrusion and lofting techniques that result in a surface with folds and slopes to move a marble. Start simple. Then try to use the tools to (re-)create a model that is similar to some of your earlier paper models. Then consider making it more complex, including structures made out of 2 or more separate components that stack, or interlock, or aggregate in some way.

   Then chose 2 of the most promising model iterations, and construct them out of cardstock paper. Before going too much further, "practice" folding, rolling, and bending cardstock by using index cards: see what is possible with the new material.

   Then begin by "Unrolling" the wavy or jagged surfaces of each separate component in Rhino, and organize the pieces carefully onto one or more 11x17 pages. Then print on cardstock sheets provided (they need to be manually fed into the printer). Then cut and crease the sheets along the printed lines, and construct the 3D paper model consisting of complex marble pathways with varied topology (including slots, channels, and curves). Use tape where necessary on these exploratory first drafts; later versions will use glue, tabs, and crimping...

   Compile PNG screenshots of the different Rhino models alongside hand sketches and diagrams that relate to the various views and media, into one or more 11x17 sheets. Bring printouts to class. Upload all process images and multi-view drawings to Pinterest.

Proj.1. ASSIGNMENT 4 - DUE Fri. 1/15   Ghost Tag: #48105_p1_a4

   Begin to describe your design process in a "post" on "Ghost" using similar protocol to that introduced in 48-125 "Digital Media" class. Use a combination of concise text and carefully curated images to reveal to your peers and instructors your design thinking, the steps you followed, the logic you used to justify moves or invent next ideas. Seek to "recreate" the evolution of the project so the "big ideas" become clearer to you and to others. Be honest; edit your ideas so they are direct. The goal is to become more self-aware, and to improve the rigor of your design process.

   Log in at https://soa2020.ghost.io/ghost/ to create and edit posts. Create one or more posts for each "project" in studio... For grading purpose, and to avoid confusion with other courses, it is vital that students conform to exact tagging and title conventions specified for each course:

   title of post: firstname lastinitial(period) #course (e.g. kai g. #48105)
   tag inside of post: #48105_p1_a1 (for Proj.1, Assignment 1)

If the blog post covers more than one assignment, please add tags for each of the separate assignment, such that one blog post may have multiple different tags.

SOME SOURCES (for research or reference)

Feuerstein M. & Read, eds. Architecture as a Performing Art (2013)
Grobman,Y. & Neuman, Performalism: Form & Performance in Digital Architecture (2012)
Leatherbarrow, D. "Architecture's Unscripted Performance," in B. Kolarevic, Performative Architecture (2005)
Bloomer K. & Moore, "Body Movement," in Body, Memory, and Architecture (1977)
Moussavi, F. "Introduction" to The Function of Ornament (2006)
Pottmann, H., et al Architectural Geometry (2007)
Sekler, "Structure, Construction, Tectonics" Structure in Art & Science, ed. Kepes (1965)
Vyzoviti, S. Supersurfaces: Folding as a Method of Generating Forms... (2006)