

# Architecture Studio: 2<sup>nd</sup> Year, F'12

Fall 2012, CMU, Arch #48-200, M/W/F 1:30-4:20

Class Website: [www.andrew.cmu.edu/course/48-200](http://www.andrew.cmu.edu/course/48-200)

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Off. Hr: W/F 12:30-1:30pm & by appt. in MM302

(8/26/12)

## Project 1: OBJECT - FIELD

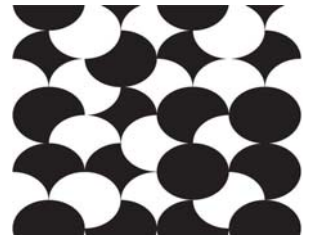
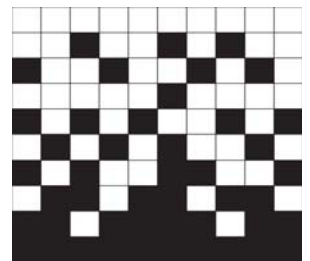
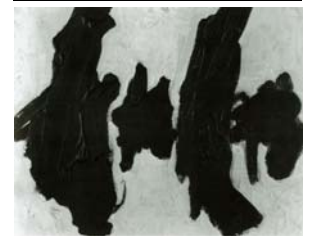
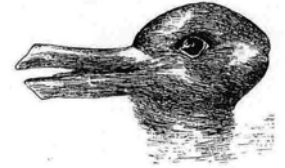
**PROJECT GOALS:** Architectural thinking often involves setting up binary oppositions such as figure/ground, solid/void, up/down, inside/outside, light/dark, and open/closed, and then negotiating between these extremes towards positions of overlap, balance, ambiguity, hybridity, incompleteness, layering, complexity, camouflage, and even contradiction. The first project will explore the relationship between “object” and “field” (as described by Stan Allen in “From Object to Field”) by researching *additive* and *subtractive* form-making in 2D, and then 3D. Your goal is to develop methods to think about *object-field*, *figure-ground* and *solid-void* relationships in a rigorous, methodical way. Find the tipping points, and how they work, as you move from an object-based composition, to moments of ambiguity and hybrid positions where multiple interpretations are possible, to ones that focus on the background or field.

### 1a: ADDITIVE TRANSFORMATION (Draft due Wed. Aug. 29, 1:30pm)

- Read Stan Allen, “From Object to Field: Field Conditions in Arch. & Urbanism”
- Begin with a 4"x8" landscape-oriented sheet of flat, black paper as background.
- Then, in 96 increments, ADD white cardstock onto the background to test the boundaries of object/field & figure-ground relationships with precision and intent.
- Take an identical photograph of the 4"x8" background sheet after every incremental change. Use a tripod. Highlight the additive changes over time.
- In addition to adding pieces, you may use *translations* such as rotation, sliding, and mirroring, and/or *deformations* such as folding, piercing, tearing, and cutting to explore the boundaries of figure-ground ambiguity.
- Pay special attention to how you engage the “edge.” Consider working in a “direction”: from edge to center, left to right, etc. Control the corners carefully.
- Stay in 2D, and in the 4"x8" frame. Nothing that extends beyond the original 4"x8" background frame can be included in your photos.
- Experiment with various techniques & moves before focusing strategically. Your process should include “false starts,” drafts, and less powerful versions.
- Avoid random or chaotic work. Work sequentially, strategically, methodically, and rigorously in small increments, exploring the role of repetition.
- Create an annotated list of the 96 transformative moves (words or diagrams)
- Crop each photo image to include only the original black 4"x8" background
- Using Photoshop or similar, assemble the 96 photos into a stop-time animation using 0.5 seconds/frame, and resulting in a 48-second MP4 video.
- Add a 5-second title frame with your name, project & title to the front of the video
- Upload the video to the class Flickr set, and add appropriate tags.

### 1b: SUBTRACTIVE TRANSFORMATION (Due Fri. Aug. 31, 1:30pm)

- Begin with a 4"x8" sheet of black paper and cover it with a 4"x8" white cardstock
- Then, in 96 increments, begin to SUBTRACT from the white cardstock to explore what you discovered in Proj.1a, using similar guidelines.
- You may not add anything to the original 4"x8" white sheet, but you may remove, reposition, and replace the paper throughout the 96 transformations.
- Explore how subtractive processes are *different* than additive, and test the boundaries of the object-field relationship spectrum.
- Create an annotated list of the transformative moves (words or diagrams)
- Create a video similar to the additive process.
- Upload the videos to the class Flickr set, and add appropriate tags.
- Each studio should aggregate their work into two videos: additive & subtractive.



## Project 1: OBJECT - FIELD

**PROJECT GOALS:** Architects are constantly *translating* their work: from one medium to another (e.g. from drawing to model to building), from 2D to 3D, from analogue techniques to digital tools, from a precedent to their own design, or from one scale to another. As with all translations, these shifts are never precise; something is always added, and something always goes missing ("lost in translation"). And yet these translations are instrumental to the architectural design process, to finding inspiration, and keys to further discovery and richness. Undertake the following digital-analogue translations to continue exploring additive vs. subtractive form-making, as well as object-field ambiguity.

### 1c: RHINO STACKING (Due Wed. Sept. 5, 1:30pm)

- Using one of your videos created in Proj.1a-b, bring 24 of the most powerful animation stills into Rhino to construct a series of horizontal cuts that are arranged sequentially in 3D to create a 4"x6"x8" rectangular solid with holes/voids.
- Use any spacing you wish between the layers. Experiment with regular, and irregular spacing to maximize the solid-void spatial ambiguity.
- Slice your Rhino model three times in any orientation to reveal three interesting "sections" & "plans."
- Print these sections and emphasize the contours, silhouettes, and solid-void relationships by drawing or painting on the printouts. Scan these composite drawings.
- Through your manipulation and careful adjustment of the Rhino layers, and the discovery achieved through drawing by hand, work to highlight ambiguous relation of solid to void (inside/outside), but also on any face or facade of the block, one that slips between figure and ground, as in your video.

### 1d: CARDBOARD STACKING (Due Wed. Sept. 5, 1:30pm)

- After manipulating the Rhino layers to achieve spatial ambiguity, cut the Rhino model into 24 layers at 1/8" intervals.
- Print these cuts, and use them as templates to cut 24 pieces of cardboard into 4"x8" rectangles with voids/holes in them.
- Arrange the 24 pieces in a 4x8 grid and photograph/document the layers.
- Stack and glue the 24 layers to create an *additive*, physical model of your block.
- Using a bandsaw or similar, cut the cardboard vertically stack to reveal sections.
- Compare these sections to the drawings from 1c.
- Your goal throughout should be to conceptualize, and then work towards, a particular solid-void configuration in 3D, and specific figure-ground relations in 2D.

### 1e: FOAM CARVING (Due Wed. Sept. 5, 1:30pm)

- Using a 4"x8"x6" block of foam, work *subtractively* to create another model that evolves out of your work for Part 1a,b,c,d.
- You may slice or carve at the foam. Consider slicing the model in various orientations (vertical, horizontal, diagonal), and in complex cuts (curve, angle).
- Experiment combining slicing and translations such as rotate, mirror, or slide. In this case you can consider pinning sections of your foam block together and then slicing again to achieve more reflexive and iterative cutting operations.

### 1f: DOCUMENTING THE PROCESS (Due Wed. Sept. 5, 1:30pm)

- Document the entire process on two 11x17 sheets, using the 2nd year documentation templates provided by the coordinator. Be sure to feature both process work, and to highlight the most important intermediate and final products. Use layout and graphics to *compare* and *contrast* the various additive & subtractive results, object & field relationships, and translation techniques.
- Upload your process work to group Flickr set, and create a Proj.1 set for yourself.
- Upload the finished 11x17 documentation to \\archpcserver\Studios\F12\_48\_200, using the filename: 48200\_F12\_lastname\_objectfield.pdf

