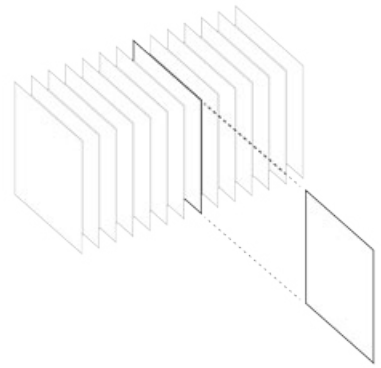
Computing Drawing: Animating Thick Surfaces

1.1 Drawings sited in a sequence associated with depth



Each student will make a 21”x24” drawing with the 24” side oriented vertically. Students will each be assigned a position for their drawings in the “stack,” and will be asked to take as input information from the drawing “below.” Each drawing will therefore serve as a kind of interpretation or reading of another.

These drawings may elicit representational qualities but will not be overtly keyed to any representational system. They will not be to scale and not correspond to any subject.

Nothing about these drawings will be arbitrary. Even chance, ambiguity and gesture will be controlled and refined though various modes of computation. Both the visual language of the drawing and the structure of the drawing process are left open by this assignment, but will be resolved and tuned to exacted degrees by students. Questions that will arise include: What is the definition of line in each drawing? What kind of geometry is(are) line(s) governed by or made up of? What is the behavior of line? What are the rules, actions, logics? What form does input to the drawing system take? How much does this input determine outcome of the drawing?

Questions of depth are paramount because they will suggest the future projection of drawing into built form without the need for arbitrary transformations or translations. The sequential arrangement of drawing in a series will key the drawings immediately into a conception of the third dimension of thickness, albeit an incomplete one.

The role of material and machines are also to be considered by students. Laser cutters and pen plotters are available, but other improvisational machines or hybridizations between human and machine are welcome.

To begin, students will build up a repertoire of technique and references in as broad a range as possible. During the process of learning the Python programming language, digital images and graphite drawings will be created separately.

Schedule

M 2.18 Introduction to course, introduction to Python
TH 2.21 Due: Partially completed preliminary drawing set

M 2.25 Due: Completed drawing set (5 graphite, 5 digital images, 5 precedents all at half size: 10.5" x 12"). Assignment of position in stack. Begin first iteration of full size drawing.

TH 2.28 Due: First iteration of full size drawing combining use of programming, machines and material.

M 3.04 Due: Second iteration of full size drawing
TH 3.07 Due: Third iteration of full size drawing. **Review of 1.1**

Resources

Alan Gauld	*Learning to Program* (web document). 2007
Marco Frascari	*Eleven Exercises in the Art of Architectural Drawing: Slow Food for the Architect's Imagination.* Routledge. 2011
Deanna Petherbridge	*The Primacy of Drawing: Histories and Theories of Practice.* Yale University Press. 2011
Jesse Reiser and Nanako Umemoto	*Atlas of Novel Tectonics.* Princeton Architectural Press. 2006