

1110: WEEK 10: Project 04_CUBE: Grids, proportion and section

Lecture 1: Grids in architecture: systems of organization.

OBJECTIVE:

Students will continue to develop strategies for translating 2D lines into 3D form. This exercise sharpens the ability to observe, interpret, and analyze visual information within an abstract two dimensional field. THIS IS NOT A LINEAR PROCESS! It requires constant adaptation and refinement between drawings and three dimensional explorations in order to develop an intelligent solution.

DESCRIPTION:

The students will generate a series of grids to establish order, rhythm and proportion in a two dimensional abstract field. Once the grids are established, they will be manipulated to create three dimensional shapes.

Lab & Homework:

PROCESS:

Drawing:

1. In a sheet 18" by 24" draw a 6 sided unrolled cube, each face should be 5" by 5" in proportion. This may be done with pencil on paper or using AutoCAD or Illustrator as discussed
2. Once the cube has been unrolled, develop in the front and back views different grid systems based on rhythm and proportion. Explore multiple possibilities for dividing the rectangle.
3. With the grid established, develop a shading system using variations of grey tones in order to imply height and depth. Lighter values are used as mass appears closer and darker tones as it appears further. Experiment with 2 to 4 different grey values. Black will imply a void through the entire object
4. Take into consideration that empty (rendered as black) space should be consistently rendered in both front and back views.
5. Create at least one composition that has one big empty space (hole) and one small.

Through this process you will discover that often complex three dimensional composition and systems of organization are difficult to understand in a two dimensional world. How does a drawing communicate the relationships and influences between sides and front and back of an object? How do they relate?

Model:

In order to explore the opportunities provided by the relationships noted above build a model using blue foam.

1. Using the wire cutter in the model shop cut a series of strips from the foam based on the lines establish by the grid drawing.
2. At first, make all strips 5" long and then start to reduce the size (cut down) depending on the shade of gray assigned to the piece.
3. Assemble all the pieces together to form the 5"x5"x5" cube.
4. Introduce scale to the composition and evaluate it. Question whether the proportions of space and the relationships between sides are performing the way you want them to.
5. Iterate and revise the model in order to arrive at a more developed, intentional solution.

6. As the model continues to be developed concurrently revise the drawing to reflect the new composition.

Final Requirements:

- Unrolled cubed Drawing for the final composition including line weights and shading.
- Final Model to be crafted carefully and of high quality.
- Photographic Catalog of all test models (document your process)