

Instructors: Augustus Wendell and Brent Klokis

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## Spatial Intervention/3D Modeling

### Goals:

- Develop a thorough understanding of, and facility with, 3D modeling and rendering conventions utilizing a number of applications (e.g. *Autodesk Revit*, *Autodesk 3DS Max*, *McNeel & Associates Rhino*)
- Develop familiarity with different model types (e.g. NURBS, polygonal)
- Develop a facility with file transfer between applications to use different attributes of different applications
- Develop an appreciation and understanding of human scale when modeling space and objects with digital media
- Develop an understanding of an architectural graphic language and representation of buildings and spaces

### Task:

After creating a three-dimensional based on an assigned painting using *McNeel & Associates Rhino*, extract the formal language to be used in the development of new design(s). Using your form-based language, develop a single form, assembly, or series of objects which alter the path students and faculty take through the College of Architecture and Design at NJIT. You are expected to research and document the circulation paths in the existing building configurations. Based on your research develop an intervention which modifies the circulation either by hindering, redirecting or expediting. Your intervention must connect with the existing building, either by hanging, wedging, or standing. Section instructors must approve intervention locations. Each section of AD112 will select and model a different section of the School of Architecture and Design. Each section must coordinate their modeling effort with the other sections and instructors.

Model the intervention in *Rhino*. Export the model to *3DS Max* for rendering. Render a variety of orthogonal, axonometric and perspective views. Composite renderings into photographs you take of the school. Render a 10 second animation describing your intervention.

### Tools:

- Modeling with *McNeel and Associates Rhino*
- Modeling and rendering with *Autodesk 3DS Max*
- Building modeling with *Autodesk Revit*
- Image processing with *Adobe Photoshop*
- Dell Precision T3500 workstations in Campbell 236C/D/G (available outside of class hours)

### Deliverables:

- at least one rendering describing the extracted formal language from the painting
- 8 renderings in .tif and .jpg format
- 2 high resolution photo composites
- 3 orthogonal renderings (top, front/back, left/right)
- 2 dimensioned elevations
- 1 axonometric rendering
- 1 two-scene camera animation (640 x 480P, 30 FPS, 20 second AVI)