Course Number and Title: ARCH 150 / Intro to CADD I / 4.0 Credits
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Website: www.thedraftedline.com/teaching

PROJECT 2: Composite Drawing and Analysis – Exploded Axonometric

The exploded axonometric is an effective drawing technique for both *representation* and *analysis* of design ideas. By utilizing 3D software to aid in the development of this 3D drawing, we can conceptually *assemble* design ideas on paper, and *disassemble* them again for the viewer to gain a better understanding of design intent. Check the course website for tutorials presented in class.

Assignment 2:
Submission of Work, Project 2, Assignment 2:
Assignment 2 progress due at 2pm, Tues 4/27/10 (Sect 1) or Thurs 4/29/10 (Sect 2)
- Submit 3 .JPGs to AW Storage by 2pm, entitling the files **YourName_P2A2_model#.JPG**
1. Using the 2D AutoCAD drawings as a guide, create a 3D model of the studio spaces in SketchUp.
    a. You must group individual elements in the model as *components* and *groups* to avoid the problem of "stickiness" discussed in class.
    b. This grouping will enable you to create a second "exploded" model from the first, in a separate document, without having to rebuild the model.
    c. You are encouraged to use *muted* colors in the model, but no textures are permitted.
    d. Export and print a minimum of 3 .JPG views of your model, with shadows turned on. Be certain to adjust the export settings to ensure good-quality .JPGs for printing. These jpgs must be approximately 7"x10" and should be brought to class.

Assignment 2 final due on AW Storage at noon, Tues 5/4/10 (Sect 1) or Thurs 5/6/10 (Sect 2)
- Final drawing (18"x24") plotted to be pinned up.
- Submit a digital file of the final document entitled **YourName_P2A2_axon.jpg (300dpi)**
2. Create an exploded axonometric in a separate SketchUp file, using your original model as a base. The exploded axonometric will allow you to separate out common groupings (structural vs. non-structural walls; glazing systems; floor and ceiling planes; furniture, etc).
    a. One element must remain in place (this is usually the floor plane, occasionally with structural walls attached). A memory of the relocated elements must appear on the floor plane for reference (these can be drawn back in or you may super-impose your AutoCAD file onto the floor plane in SketchUp.
    b. Objects that are pulled away from the floor may only be moved on an X- Y- or Z- axis.
    c. The organization of objects pulled away should be strategic and hierarchical, but based on the order of assembly as well.
    d. Create guidelines in SketchUp that reveal the *path* that the elements took when pulled away from the model.

Assignment Objectives:
Explore hybrid drawing techniques in representation style; work between software to develop a fluid working methodology; use a combination of 2D and 3D drawing techniques to aid in critical representation.
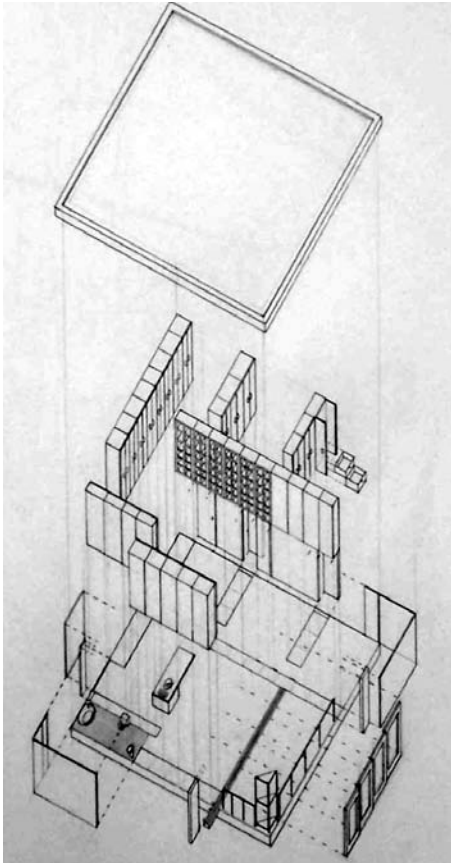
Mike Gajdorous, Exploded Axonometric, 1997
(student work)   Furniture House, Tadao Ando
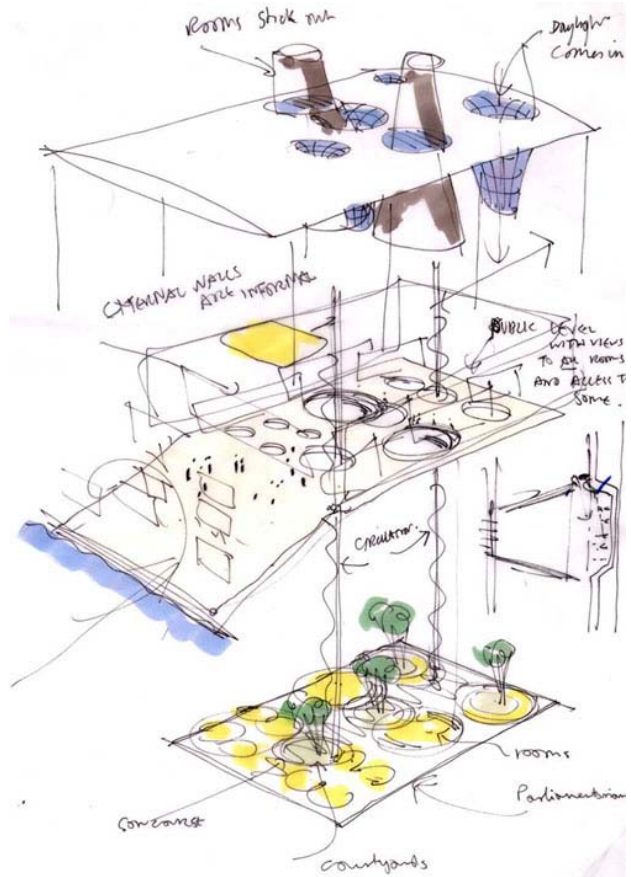
Richard Rogers, Exploded Axonometric, 1998-2005
National Assembly for Wales, Cardiff

Richard Rogers, Exploded Axonometric, 1997-2005
Terminal 4, Madrid Barajas Airport