

Special Topics in Fabrication

COMPONENT SYSTEMS: ADVANCED FABRICATION

Visual Studies Spring 2009 / 2nd session

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Class time: Thursday, 3 PM – 5 PM

Initial design concerns and strategies for your detail/joint/component

- **MARCO scale:** define the structural system [ie the building elements such as beams/columns/curtain wall/bearing wall/truss etc] and the forces that are acting upon this system.

- **MICRO scale:** what is the joint or component that will act as the mediator/connector between these structural elements? This is the detail that we will focus on for the course.

- **RHINO:** use this as your primary sketching program. Begin your MACRO and MICRO models in this program.

- **SOLIDWORKS:** we will build your component/joint in Solidworks once we have an understanding of its tectonic and structural properties [ie how are you transferring loads from one element to another? What are the shear/stress or moment forces on this joint?]

- **FABRICATION/PROTOTYPE:** you should begin to think about how you will build you component. Is it a subtractive model where you must remove material from a solid block? Or is an additive model that is an accumulation of parts such as folded sheet metal? Or is it both.

Week 02 – 04.02.08:

Assignment 02 due:

For This Thursday I would like to see in **RHINO:**

1. The general, schematic model of your MARCO structure
2. A few sketches of your MICRO detail/joint/component with a diagram of how the forces will be acting upon it [remember structures one... a simple FBD is fine]
3. A schematic PHYSICAL model of your MICRO detail [laser cut from chip board or cardboard]. This model can be very simple and is your first PROTOTYPE model.

Email me with any questions.

Joe