

## **MATERIAL ESSENCE**

**Studies in Tectonic Layering**  
a botanical research center

Andrew Scott  
MIT Level 2 studio Fall 2003

---

### **Assignment 5: Fabrication and Prototyping**

Reflecting upon the pin-up yesterday - 2 general comments:

1. STRUCTURE - It was good that most of you have begun to explore the form and development of the structure as it relates to the larger ideas behind your project. You also need to consider how these emerging ideas relate back to the spatial order and organization through redrawing the plan. Work and think at multiple scales.
2. SKIN - It also seemed that most of you have still to consider the nature of the skin /enclosure and how it responds to the need for environmental control. In some cases the glass was not there, and in others it was just glass without an explanation of how it works, what its properties are (clear, opaque, translucent etc) and if it is accompanied by other devices (shading, ventilation etc). I would like you to consider these aspects and incorporate them into the next stage of the assignment.

For the next assignment, I would like you to refocus upon the materiality of GLASS in your project. We reviewed this in the early stages and it is a relevant time to explore and define a deeper understanding as to how glass is being worked and crafted in the project. You should refer back to your original research into glass and consider the qualities that originally interested you.

So for completion and review on FRIDAY DECEMBER 5 -

you should select a part or element of the project that can then be fabricated and prototyped (within the time available), and that informs you about both the material qualities and the assembly. Ideally, this will be a study that follows on from the 'skin and bones' study. For example:

- fabricate part of an integrated assembly - a section, panel, joint, material relationship
- model the form of an entire element - such as a roof or wall design- including the layering, types of glass / solids etc
- mock-up and test layering for environmental control- types of glass, fabrics, layers etc and test for light qualities

You will need to determine the scale that fits the study- but I expect these to be in the order of 2 - 3 feet in size (and bigger if you can!) but large enough to explain the emerging material language. Remember that these prototype models are a means for you to better understand essential aspects of the design. They are working models, need not be like presentation quality models and should feel like they are mock-ups of ideas. However, expect that they will form part of your work at the final review.

Please email me and Noah your PROPOSAL for what your prototype model by the end of TODAY. I will then email back further comments and suggestions over the next couple of days.

I will also be away for reviews at ASU next Tuesday, back Thursday. Speak with Noah about what you are doing and feel free to email me ideas and sketches (no big files please). It is important to keep the momentum going over the final few weeks of the semester.