Architecture Studio: Foundation II / 1st Year Spring
Spring 2015, CMU, Arch #48-105, M/W/F 1:30-4:20
Studio Website: www.andrew.cmu.edu/course/48-105
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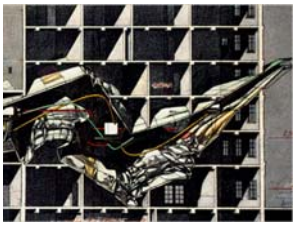
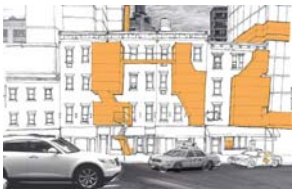
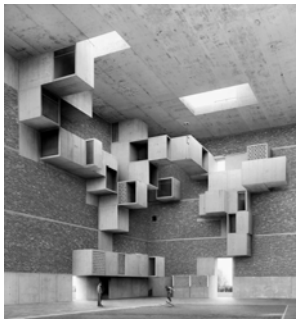
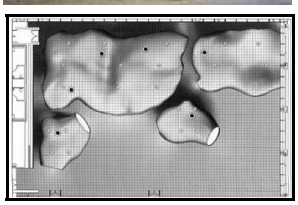
Off. Hr: by appt. in MM302
(3/25/15)

Project 3: Building Transformation - Overview









PROJECT: Your charge for Proj.3 is to design a small addition, insertion, or installation for Hunt Library that begins to transform (part of) the building and its program into a leading edge academic library that drives CMU and its campus into the future.

MINDSET: Buildings often last longer than the exact programs for which they were designed, and as a result need to evolve and to adapt to changing futures. For ecological, economic, and ideological reasons, architects in the future will need to engage ever more with *existing buildings*. Ideas of adaptation, preservation, transformation, re-invention, reuse, and recycling will dominate in regions that do not have pressing demographic shifts, and in which the building stock is solid but increasingly outdated.

Nowhere is this more true than in campus, library, museum or cultural architecture, where cutting edge thinking often collides with outdated buildings and constrained budgets, and where the student's quest for hyper-contemporary experiences demands constant renewal. The rate of change can range from evolutionary to revolutionary. But it always begins with a first step; through small, strategic insertions, additions, and rethinking of existing spaces, we can point the way towards a radically transformed experience and programming of the original building.

THEORY: You are encouraged to explore theories of *symbiosis* to help define your architectural argument about the relation of the original building to the new insertion.

Symbiosis, from the Greek meaning 'living together," is defined by biologists as the living together of two or more species in one of four prolonged and intimate ecological relationships: 1) Mutualism, an association in which both organisms apparently benefit from their interaction; 2) Parasitism, which includes predation, involves one organism benefitting itself while harming the other; 3) Commensalism is when one organism benefits from the interaction without harming the other; 4) Ammensalism is where one organism is harmed while the other is unaffected.

Architects have (mis-)used the term "parasitic" to subsume all four symbiotic relationships. Architectural para-sites are flexible structures that depend on, feed off, transform, and occasionally deform the existing infrastructure, building, or city. Parasites often have special modifications to their body or their life cycle to optimize their interaction with the host. A parasitic construction can redefine or transform the host environment/site and provides new perspectives, orientations, or spaces for the user or public. At their best, parasites can help materialize latent features of their host and re-imagine its future.

SITE / PROGRAM: Similar to other design projects you have undertaken this year, we'll begin by understanding the site and program as system of constraints and opportunities.

The existing architecture of Hunt library should be understood as the site. Work to analyze it and understand it precisely. Study the details of the construction system, the spatial, sensual, and intellectual experiences of approaching, entering, and moving through the library, the past history of the building and site, the solar, climatic, and natural context, the program and how the building is used, and the CMU Pittsburgh campus as the broader context into which you must weave your design and experiences.

The program will remain undefined, though Hunt must remain at least in part a "library." You should speculate about the future of the "academic library" in the context of CMU, imagine how we should use, experience and understand Hunt in the future, and perhaps rethink the role of the Hunt building on the campus. You will need to define your own "performance criteria" for both the building and the library based on the speculations. Although you are encouraged to "think big" and re-imagine Hunt in a new way, your final design is for the first small step in what is potentially a much larger-scale and longer-term process of constant change. Think carefully and strategically about what would be the most effective, powerful way to begin to reveal the longer-term evolution and potential future of your building transformation.

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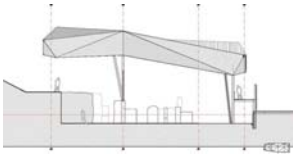
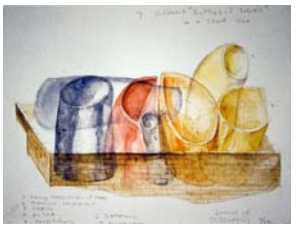
Project 3: Building Transformation - Assignments #1-3










Assignment #1: Rhino Model (Due Wed. 3/25, 1:30pm)

Follow the IDM assignment and create a digital model of Hunt in Rhino. Use the DWG digital files, scanned blue prints, old photos, as well as hand measurements for accuracy, and to begin to identify tectonic aspects about how the building is constructed (e.g. distinguishing between the concrete skeleton and the aluminum fins on the facade)

Assignment #2: Canopy Charette (Due Wed. 4/1, 1:30pm)

Follow the IDM assignment, and design a new entrance canopy for Hunt. In addition to protecting visitors from the rain (and sun?) and accommodating other distinct pieces of program, the canopy should serve as the announcement or introduction to the building as you approach, and should mark and help establish the threshold between inside and outside. It is both sign and front door, part of the bridge/span from inside to outside.

Assignment #3: Analytic & Generative Diagrams (Due Fri. 4/3, 1:30pm)

Develop at least 3 different "generative diagrams" to alter or transform Hunt Library, each proposing a different kind of change and different scale of change. Think especially about the recent library analyses the class has been doing as well as readings about the future of academic libraries; imagine how Hunt might change.

Begin by studying Hunt: visit it, draw it, analyze it. Continue to improve your Rhino model and canopy design as first steps in engaging with the library at various scales, from site, to overall building, moments like the entry, and some construction details.

Instead of doing a complete, separate analysis of Hunt, you should begin to identify several areas of interest or opportunities for transformation in Hunt, experiences you want to improve, augment, or invent, especially related to light, space, users and the events and activities taking place in Hunt. Then create a series of *analytical diagrams* recording your observations and experiences of at least 3 of the situations. Remember to work in 2D & 3D, in several media, with many different drawing types, to promote deep understanding of the particulars of each situation in several ways.

Next, invent at least 3 *generative diagrams* that respond to the situations you analyzed, and begin to point the way to a design resolution. Generative diagrams are closely related to concept sketches or parti diagrams, all tools that (can) help guide the design process. They capture a big idea, essence, vision, or organization that remains at the root of future design decisions. They can be either very specific to a situation, growing out of the building or an analytic diagram (e.g. altering a certain geometry or experience you discovered), or they may be more general or conceptual, and transferred from outside architecture (e.g. the concept of parasite), or in between (e.g. a book-less library). They can be the result of gesture and intuition, or more deliberately developed out of the accumulation and interpretation of many parameters and a wealth of data.

Potential areas of redesign and transformation might include: 1) canopy, threshold, access and entry sequence; 2) the skin, membrane, or envelope separating outside and inside, either at the facades, or on the roof; 3) the way light & energy enter/leave the building, the views through and out of the building, the lighting of the building at night; 4) the role of books and book storage, the relation of hard copy to digital media; 5) the role and nature of study spaces, maker spaces, social spaces, collaborative spaces, labs, studios, etc.; 6) circulation through the library; 7) the circulation desk; 8) the study carrel or table of the future and its position in the library in relation to books, light, etc.; 9) ideas and elements from other libraries we have studied; 10) rethinking the primary purpose or use of the library building for the CMU campus: what other events, activities, or user groups should be in Hunt?; ... OR any other aspect or situation in Hunt.

Deliverables: a draft of some analytical diagrams and some associated generative diagrams is due by the end of studio on Fri. 3/27; further iterations are due 3/30 and 4/1, and a final set of analytical and generative diagrams to launch your design is due Fri. 4/3. Place all work related to Hunt (studio & IDM) on Pinterest.