SECTION 3:

SELECTED PORTFOLIO OF STUDENT WORK
CARNEGIE MELLON UNIVERSITY 2007 - 2011
(reverse chronological order)
APERTURES [three elements of architecture]

By nature of its physical existence, every piece of architecture establishes relationships with the earth and the sky. Within this newly formed spatial realm, an occupant’s understanding of these relationships is heightened or suppressed through breaks within the constructed elements of plinth, wall and roof. These become the most fundamental elements for the creation of space. Throughout the history of architecture one can decipher design strategies based upon these elements and informed by material use and technology.

This first project will explore the relationships between materiality, form and experience and must consider how architecture relates to ground, sky and context through strategies of plinth, roof and opening. Particular attention will be directed on the spatial, structural and sensual performance of materials. We will interrogate and explore architecture’s materiality, ultimately establishing and expressing material relationships revealed through fundamental architectonic conditions.

Project:
Amidst the extensive raw beauty of the New Hampshire White Mountains you are charged with programming and developing a space for physical and mental relaxation, a sequence of spaces that foster singular and collective experiences connected with the surrounding natural environment. A portion of the program must operate as a therapeutic spa that principally involves water.
FOURTH SEMESTER 2011
project one

Matt Adler

rebar "mesh"
primary structural framework

exterior casing
winter spa module
summer spa area/waterfront

CMU STUDENT WORK
Harvard Square is the historic center of Cambridge, Massachusetts, and has long served as a cultural epicenter serving the surrounding locale of west Cambridge. It is a point of convergence between diverse groups of residents, students, academics, tourists, street performers, and urban nomads. While the area referred to as Harvard Square has grown to encompass the surrounding urban fabric, the transit stop located at the convergence of Massachusetts Ave, Brattle Street and JFK Street served as a primary force in establishing the current site. Initially, a transit island for an MTA Trolley Stop, the site later transformed with the establishment of the underground Red Line ‘T’ subway. The kiosk, originally built in 1928, served as the entry point to the underground platform. The expansion of the subway stop in the mid 1980’s led to the growth of the current pedestrian “square” and relocation of the subway entrance from the historic kiosk to an open-air covered stair and escalator. A long-standing fixture of the square has been the Out of Town News stand, which has for decades provided print media from across the globe to locals. Originally housed in a humble structure adjacent to the MTA kiosk, Out of Town News moved to the National Historic Landmark kiosk with the reorganization of the subway entrance in 1985. Within the past decade, the ease of online information access and general decline of print media has had a devastating impact upon sales and calls into question the traditional business model. On the verge of bankruptcy in 2008, Out of Town News has, for the time being been preserved through new ownership in 2009.

The city of Cambridge in conjunction with the MBTA has concluded the current site programming is outdated and does not leverage available media trends. Furthermore, the site structures and paving are deteriorating and in need of replacement. The historic MTA kiosk will be permanently relocated off site to allow for more extensive site redesign. You are charged with creating a space to serve as an interactive media visitor/information center while also addressing pedestrian flow patterns through the redesign of the ground plane, subway entrance canopy, and elevator. Additionally, you are challenged to design a single building element that investigates a performative use of pre-cast cementitious materials. Performative parameters can focus on, but are not limited to design objectives such as structural capacity, natural and artificial light flow, thermal mass, water collection and the interaction of the body with urban fabric/architecture.
FOURTH SEMESTER 2011
project two

Alex Fischer, Sevin Yu, Michael Lynes, Paulina Reyes

Esra Aras, Max Park, Jacob Russo
DANCE SCHOOL AND PERFORMANCE CENTER

Theater, film, dance and architecture have long been intertwined; each mobilizes spatial and temporal modes of perception while articulating lived space. While music has traditionally been seen as architecture’s most allied art, one can argue visual performance and dance has had the most significant impact upon contemporary discourse as is made evident in the work of contemporary architects. Here, the contemporary dialog surrounding conditions of event; simultaneity and superimposition are influenced by spatial / time-based forms of media.

Traditionally, most performance venues are not associated with a particular theater or dance company, allowing a great deal of flexibility and profitability due to a broad range of event types. An unfortunate consequence of many performance venues is the disproportional lack of use due to a singular focused activity, performance. The hybrid program you are asked to address, Dance School and Performance Center seeks to operate as an active hub for education, training and performance. As such it should encourage a reassessment of the distinctions between spaces of education and spaces for performance.

While condensed in area, the theater district in downtown Boston is home to the majority of the theatrical performance venues in Boston. This once neglected and “seedy” district (referred to as the Combat Zone) has transformed dramatically over the past 30 years as rising property values, scarcity of buildable land and political pressure has forever changed the social and physical makeup of the district. The site, located mid-block on the west side of Tremont Street, sits directly adjacent to the Shubert Theatre and currently consists of a series of local businesses. You are to assume the existing building, to the party walls of the Shubert Theater will be demolished. While the historic façade and lobby of the Shubert Theater should remain, strong arguments for its removal will be entertained. The alleys on either side of the theater site must remain active.
FOURTH SEMESTER 2011
project three

Matt Adler

CMU STUDENT WORK
One could say light is the ultimate material. A form of meta-material or immaterial, ever present, yet ever changing – its intensity and coloration affected by atmosphere and earth. Like gravity, it is a given in any architectural investigation. Yet, its potential to elevate architectural experience is often ignored or denied. Perhaps like other things familiar and immediate, we are at times numb to its full presence.

This project seeks to provide a venue through which one’s understanding of light is elevated through the manipulation of matter and the creation of space. Like light itself, one’s engagement of the venue must not be static – experience should not be one-dimensional. The Light Catcher is not a camera obscura or other type of machine for the capturing of light, but rather a choreographed architectural experience reliant upon natural light.

Project:
You are charged with developing a light catcher to be located on one of three predetermined sites in the city of Pittsburgh. These venues should be understood as urban intervention and charged containers of experience. As such they must engage context on some level and move beyond strictly hermetic envelopes.

The light catchers should be principally constructed off-site and transported to their final location. As a result the building ‘chunks’ must meet transit size regulations (listed below). The number and type of chunks may vary widely. As is ideally the case with prefabrication, one should assume that onsite construction and assembly is as minimal as possible, but will likely require the use of cranes, etc. As a result of this construction type, careful consideration must be given to a construction logic and material palate consistent with the challenges and opportunities associated with prefabrication.
FARNSWORTH HOUSE VISITOR CENTER AND GATE HOUSE

“Living in this house I have gradually become aware of a very special phenomenon: the man made environment and the natural environment are here permitted to respond to, and to interact with each other. While this may derive from the dogma of Rousseau or the writings of Thoreau, the effect is essentially the same: that of being at one with Nature, in its broadest sense, and with oneself.”
– Peter Palumbo

The Farnsworth house stands as arguably one of the most potent examples of international style high modernism. A machine for experiencing nature, this modestly scaled residence embodies the ideals of Mies van der Rohe’s work and tension between man and nature. Ironically, the natural context that so charges one’s experience of the house, increasingly threatens its existence through seasonal flooding.

Project:
You are charged with reconsidering the current information center and the subsequent arrival experience for tourists visiting the home. This new visitor center / gate-house will replace the current ‘barn’ structure and also include modest living quarters. Additionally, you are challenged to design a single building element that investigates an innovative use of cement-based materials to achieve sustainable solutions to real-world environmental challenges. This allows for the design of a single element, component, or methodology of a project using cement-based products. Design concepts can focus on, but are not limited to, such sustainable design objectives as durability; recyclability; reduced site disturbance; water management; optimized energy performance.

Alex Greenhut, Sara Gotschewski, Ben Imhoff, Michelle Spencer
CHICAGO 2016, A HUB TO INFORM, INTERACT AND OBSERVE

We will use Chicago and its potential hosting of the 2016 Olympic games as the testing ground for an architectural investigation of mobility, leisure and spectacle. You are charged with designing a Hub to inform, interact and observe; a hub that is programmatically integrated. This hub must ultimately host the Olympic games into Chicago’s urban fabric and allow the spectacle of the games to superimpose itself into the spectacle of the city. This is a device to introduce the ordinary to the extraordinary: the permanent to the temporary; the local to the visitor.

Building upon the lessons of natural lighting, architectural thresholds and building components found in the first two projects, you are expected to convincingly resolve a project of complex content (program) and context. This project will require both Olympic and post-Olympic programming scenarios and must take into account the varying volume of visitors and seasonal uses of the park. Lastly, you are expected to address the ecological imperatives of the city of Chicago.

While you are not provided with program area requirements, you must convincingly establish a program brief commensurate with the use of the spaces and identity of the Olympic games.
This semester, the theme of atmosphere will facilitate design inquiries that question the privileged role of vision through the design and subsequent experience of architecture. In this context atmosphere should be understood beyond forms of theatrics that are reliant upon the creation of superficial effects. For the purposes of our investigations, we will approach the studio theme with a more comprehensive understanding of specific material and spatial conditions as they relate to the body. This studio seeks to reconcile the quantifiable, often arms-length process, inherent to projects of significant scale and scope with a close, focused awareness of the work as a generator of distinct and evocative conditions. As such, this studio will explore the potential of an architecture that is conceived as the agglomeration of these conditions rather than a singular dominant concept. This studio will operate with the understanding that there is an inherent distance between the architect’s instruments of representation, vis-à-vis models, drawings, etc. and the completed work of architecture. While this studio will utilize conventions of representation, particular attention will be devoted to the development and utilization of alternative methods for design and assessment. This studio will operate with the understanding that limits are an inevitable and necessary, yet freeing device within the practice of architecture. They provide a framework to operate within, push against and at times, break with conviction. Attention will be devoted to the relationships between design strategies and project limits.

Project: The vehicle for these explorations will be a health and wellness center located in downtown Pittsburgh. This facility will serve two agendas; cater to the increasing number of under-50 working professionals living downtown and promote a lifestyle of wellness and healthy living as an effective form of preventative medicine. Positioned as a wellness center, rather than a traditional fitness gym or sporting center, the facility will supplement traditional programs associated with a fitness center with activities that support a holistic approach to lifestyle wellbeing. To this end, the facility seeks to move beyond the hermetic envelope often associated with this project type towards more integration of spaces that are conditioned and unconditioned; natural and artificial; introverted and extroverted.