

Observation Tower: Building an Understanding of Site and Place

“We now propose to follow the principals of phenomenal, conditional and responsive art by placing the individual observer in context, at the crux of the determining process, insisting that he or she use all the same (immediate) cues the artist used in forming the art-response to form his or her operative-response (judgements)...”

INTRODUCTION

I was brought in to Hobart and William Smith Colleges as a Visiting Assistant professor in the Architectural Studies program situated in the Department of Architecture and Art. The Architecture Studies program is a small design studio based curriculum positioned in a traditional liberal arts college. The design studio core of the curriculum is a two semester sequence that focuses on traditional beginning design pedagogy including but not limited to concepts of space, form and order, design process, studio culture, documentation and presentation along with skill building sets such as drawing, drafting, sketchbook craft and habit and model making craft. The program is a strong introduction to architectural education, what it means to be a student of architecture and is ultimately a seed and gateway for students to prepare a competent portfolio for admission into three and half year masters programs.

As Visiting Assistant Professor, I was charged with the mission of exploring how Design-Build education models could work within the liberal arts context as a part of a non-professional architecture studio based program. Observation Tower, the capstone project for a group of second semester design studio students served as the vehicle and critical exploration of Design-Build within this context. The project aimed to bring the following aspects to the students education and experience: scale, representation as a means for exploring a phenomenological experience of architecture and its relationship to site and place, working drawings, concept generation and parti continuum, construction and fabrication and a form of post occupancy evaluation. The project became a blend of exposure to higher levels of pragmatic architectural education and practice, typically explored in a professional school, and beginning design foundations and fundamentals.

An Observation Tower is a full-scale viewing device aimed at demonstrating to the general public a heightened sense of visual reality in the public realm specifically for a proposed site. Observation Tower, as a project, opened opportunity for students in the design studio to explore architectural design process outside of the confines of

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drafting desk and into the complexity of architectural full-scale construction primarily using site and place. The project challenged students to use the public spaces of downtown Geneva, New York, as a muse and place to observe and ultimately situate the architectural product produced from the design and construction process.

The project began with a series of site visits and a form a site survey exploring the city at eye level and aerial perspective in order to understand the place through raw human perceptual experience and through historical and analytical modes of representation and thinking. In tandem with site investigations, studio based assignments exploring model making, drawing, photographic documentation and scaled constructions investigating view framing and spatial/physical construction. The combined practice, in this case, within studio, site and fabrication shop produces a series of full-scale body sized constructions, shop built and transported for actual installation in downtown Geneva for students and the public to engage and experience first hand.

PROCESS

To begin, students were asked to intimately explore and observe downtown Geneva in order to locate the site for their Observation Tower. They were seen, as Michael Pollan writes of his own building site searching experience, “pacing first this way ,then that, doubling and then tripling back again before stopping to appraise a view... lost - in perambulations”. This dance required documentation and by taking photographs of particularly interesting sight lines and relationships between the built and natural environment students began “the process of recognition and understanding” and learned how it “breaks with the conventions of abstract referencing” in regards to site and place, as Robert Irwin describes. Via analysis, the resulting photographs set the stage for the development. Maps were created as a form of analysis and served as another representational vantage point to see the city from a different perspective.

Simultaneous to times spent surveying the site students began to explore small planer view framing devices. These devices were created at their desk and needed to be fixed in place. Each student evaluated their study models based on a simple set of criteria: the form of the device, the space created inside the device and the way that the device modified, highlighted or blocked a particular aspect of the cluttered and active studio space.

Figure 1(prev. page): *Time Tower* by Sarah StPeter

Figure 2: *Periscope* by Dixin Bao



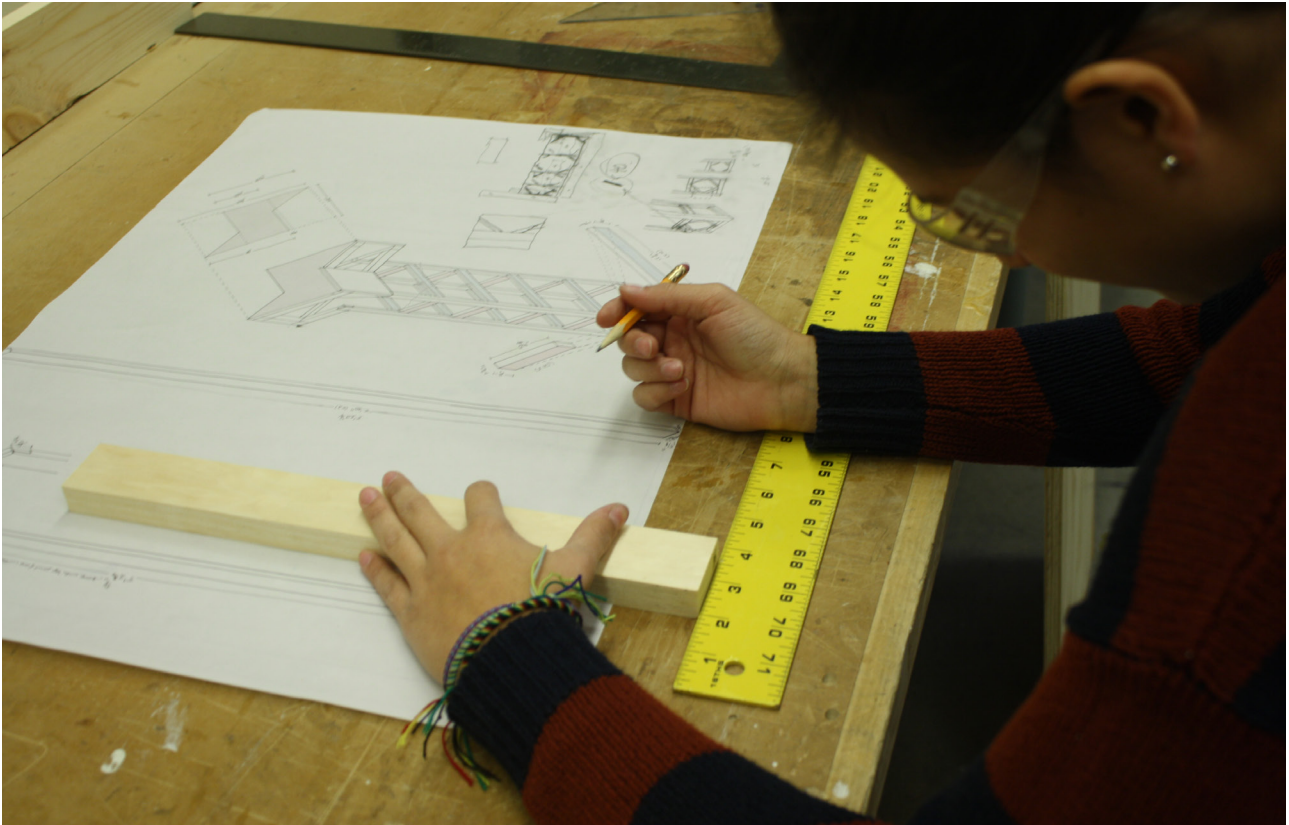
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For each student concept, construction and modes of representing both began to become more fluid three weeks into the project. There was an emphasis coming out of the gate on developing a strong parti that would carry on as a continuum throughout each stage of the projects development. Students developed various central ideas based on their own personal interests, memories and observations of the city. Dixin Bao explored the city's relationship to the adjacent Seneca Lake (the largest of the Finger Lakes), it's reason for being where it is and over the last 50 years how it has become more and more detached to the natural resource. Ana Garcia was drawn to the reoccurring perpendicular elements of the city, such as signage and alleyways intersecting larger streets, began investigating movement patterns of the public entering and exiting residences and commercial spaces. Sarah St.Peter found evidence of time passing in the city and began to observe and record the city fabric in flux.

With a rigorous site analysis and survey, study models and a carefully considered parti in hand students began to assemble their first set of studies in both model and drawn form of the Observation Tower. In many cases the towers began to resemble iconic tourist attractions such as the Space Needle in Seattle or the CN Tower in Toronto. And in other cases, urban and rural infrastructure such as water towers, high tension wire towers and bridges began to serve as a precedent to borrow a structural logic to be reinterpreted as it would now be employed by a viewing device. For others the camera and the tripod remained the logical way to support the proposed viewing device especially where transportation and functionality were of concern. Regardless of the direction these precedents served as important springboards for the tower's design and construction.

A mid-project review was staged at this point in the design process. Prior to this, students prepared their photographs, study models, sketches and final design drawings

Figure 3: *Periscope* by Dixin Bao



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and models for discussion. The review was preceded by a series of wood working and glass fabricating safety and material processing workshops. Workshops were geared to give students a confident and safe understanding of the shop tools and how the materials will ultimately need to be cut, planed, drilled, sanded and joined. At this point a material budget and time budget were discussed. Design-Build in an academic setting is one of the strongest ways to present time and material costs as a critical component to the design process. While the students would not ultimately punch a clock or compile a spreadsheet, their own navigation of wood-shop hours and understanding of how long it would take to mill, assemble and finish their proposed construction simulated these real-world constraints. In terms of material cost, each student was given a kit of parts or a material ration, and they needed to figure out how their designs would utilize the given material and no more. The kit of parts consisted of two 6' lengths of 1x4 poplar and one 2' x 4' sheet of 1/2" baltic birch plywood along with an assorted set of glass, acrylic and mirror. The combination of these workshops and a lecture unveiling the concepts of material and time costs as well as the actual material and time budget set the stage for a mid project review that created conversations between faculty and students focused on evaluating the design process and the current product of that process as well as initiating the the next steps as the Observation Tower would move from schematic design to design development and ultimately into a working drawing as a form of construction documents.

Students were required to have their working drawing on them at all times during the construction and fabrication of the Observation Tower. This served as an aid as they phased their own making process as well as a visual form of communication to help wood-shop staff and faculty advise students on how to better navigate the shop or better design a detail within the construction. These drawings largely took the

Figure 4: Ana Garcia in the shop with working drawing

form of carefully crafted exploded axonometric drawings with dimension strings and call outs. As the students exited the shop more and more notes and small sketches added to the original drawing, adding to the students understanding the value of drawing as an essential component to construction.



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Slowly the studio and hallways began filling with carefully constructed wood structures painted white or waxed to emphasize the wood grain and joinery. Prior to the final review of the semester students transported their structures to Downtown Geneva and installed them in their designed location. The structures were up for 8 hours and students documented the Observation Tower in situ as well as recorded the interaction provided by the public. Where the project began it also ended. Students walked from tower to tower observing the city, photographing and gaining more and more understanding of site and place.

OBSERVATIONS

Students were able to confront and successfully hurdle issues of scale and material representation through the design build process with an emphasis on site and place. Documentation (beginning, during and ending) serves as a way of confronting scale and aids in evaluation during the design process. Typically Design-Build projects are often group projects within the academic and professional setting, but because of the relatively small scale of each work these projects were generated by the individual and executed largely by the individual. This increased the stakes for each student to understand and execute every part of the design process and the construction process. In addition, students began working together collectively under their own desire to collaborate in the form of sharing production loads, building jigs that would be shared by multiple students and sharing logistical strategies as well as providing documentation support.

In group discussion an important question was raised. “Why talk about phenomenology when producing in a Design-Build methodology?” First where is the question coming from? The assumption would be that as a general practice Design-Build concerns itself with rational criteria such as managing budgets, logistics, working drawings, implementation of sustainable and durable materials, the process of getting there start to finish and variations of the post occupancy evaluation. Considering the question and the context Design-Build is rooted in practice and to go further

Figure 5: *Perpendicular Tower* by Ana Garcia



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hands-on practice as an educational model of kinesthetic learning. It was challenging and at times unclear to students the role of phenomenology played in a Design-Build project.

Learning objectives associated with a Design-Build project such as the ones listed above are critical and in line as Robert Irwin describes a work of this making as “site conditioned/determined” and goes on to assert that in order to achieve “this requires the process to begin with an intimate, hands-on reading of the site.” If this is an appropriate beginning to the beginning design studio based in Design-Build “all of it’s cues must come from its surroundings”, “it” referring to the art response in the context of art making as Irwin directly is talking to, and here it is directed towards the architectural construct. In other words, the architectural construct is not simply designed and built for the site, it is now an integral part of that place.

In the liberal arts context, Design-Build, as an idea and practice formed a new studio environment transforming an architecture students educational experience from one confined to the abstraction of studio production methodologies and into a realm of exploring architectural representation as a means to create a meaningful physical work of architecture born from observation of site and place and situated in conceptual fabric of phenomena and experience. Confronting challenge of scale through the precision of wood and glass construction and emphasis on situating work in the city, a real site and real place.

Figure 6: *Perpendicular Tower* by Ana Garcia