The Nonstandard Studio: Fabrications

Spring 2017
ARCH 571 Graduate Studio
Professor Aaron Paul Brakke
Consultant Lowell Miller
Credits: 6 hours
Schedule: MWF 1:00-4:50 PM
Location: TBD

Non•standard (ˈnənˈstænd•dəd) adj.
1. Deviation from the standard.

Fab•ri•ca•tion (fabˈri kəˈshan), n.
1. The act or process of fabricating; manufacture.
2. Something fabricated, esp. an untruthful statement

Reality is indeed parametrically mutable: by adjusting the parameters of parts or sections of reality we can fabricate anew. This is the ineluctable oscillating play – between the parameters of the received reality (the documentary mode) and the parametric fabrication of a re-conceived reality (the fictional mode) – that is architecture. – Mark Rakatansky

The spring 2017 version of the Nonstandard Studio will explore Fabrication (both definitions). On the one hand, we will fabricate alternative narratives for architecture and will strive to “make real the imaginary, make up imaginary worlds in order that they can be constructed.” On the other hand, we will fabricate, make, build and construct prototypes and pieces of these worlds.

The first phase of the studio will focus on making and thinking. This will be accomplished in a workshop environment that looks to promote computational methods and digital fabrication. At this time, students will begin with a series of exercises that analyze conventions in architectural drawing, challenge these standards and explore other forms of visualization/prototyping which might augment the cognitive capacity of the medium. The primary objective at this stage is for students to become more educated in computational design thinking, explore through hands on activities and develop the necessary skills to bridge the digital and physical realms. In parallel, readings and discussions will be undertaken to create the framework for the studio and set the stage for the second phase of the semester which is design speculation and prototyping.
In the second phase, we will hone in on a specific site which will be located in the Champaign Urbana vicinity. Regional issues will be discussed and the importance of biology and agriculture will be carefully contemplated. Moreover, students will be exposed to UIUC’s contributions to the cybernetic discourse and to other research facilities that reside amidst the corn and soybeans. All of which position Champaign County as a peculiar node of world class techno-agro innovation and advancement. As this rich context is revealed, we will question the capability of the existing built environment to embody the spirit and values of such a place. Students will be challenged to address the following questions: How can small scale interventions become place makers that heighten the awareness of the context in which they are constructed? How can urban acupuncture serve as an instrument to facilitate a critical discussion and promote speculation about the future? The design task will be to create a plausible proposal that is able to do these things. Students will present their work at the midterm.

The third and conclusive phase of the semester will involve selecting the best design ideas and creating a public installation/full scale pavilion together as a class. This work is projected to be constructed in Urbana. Students will work closely with Lowell Miller and employees of the shop to fabricate the pieces and then proceed with the onsite installation. The Root to Roof initiative, conceived by Lowell, has begun to create new opportunities for local and sustainable development through the use of local trees to create usable lumber. A significant amount of this wood will be allocated for the construction of the final project. A modest budget will also be provided to complement the previously mentioned material resources. Students will gain exposure to a myriad of theoretical and practical issues throughout the semester. Important insight will be gained into methods, materials and techniques used to conceive of and produce architecture.

About the Studio Environment:
The Nonstandard studio is an exploratory space for architecture students. In this studio we acknowledge the strange nature of our reality. We are situated on planet earth in an epoch unofficially known as the Anthropocene. We reap the benefits of an industrialized, technologically advanced and connected society, however we also inherit the consequences which include political instability, deterritorialization, accelerationism and environmental catastrophe. Confronting these truths means that we must question the “standards” which regulate service and industry: As Albert Einstein once said, “Problems cannot be solved with the same mindset that created them.” Students are challenged to think critically about the role of design in this type of environment. They think outside of the box and create hypotheses about what a “nonstandard architecture” might be and what it could achieve. Students utilize design fiction described by Bruce Sterling as, “diegetic prototypes to suspend disbelief about change” iii to construe speculative narratives that potentiate architecture’s capacity to affect society in productive ways. Digital tools are used to probe these conjectures and take projects a step further. Modelling, simulation, visualization and fabrication are iterative procedures that are vital for a rigorous and revealing design process.

So, planners, architects, and engineers take the initiative. Go to work, and above all cooperate and don’t hold back on one another or try to gain at the expense of another. Any success in such lopsidedness will be increasingly short-lived. These are the synergetic rules that evolution is employing and trying to make clear to us. They are not man-made laws. They are the infinitely accommodating laws of the intellectual integrity governing universe. iv— B.Fuller

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i Definitions found in Random House Unabridged Dictionary of American English
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Read full description in the document. Feel free to contact me if you have any questions. I look forward to working with you.
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Image 1: Artist’s (Ittiz) interpretation of Planet Earth at last glacial maximum of the current ice age,
Image 2: Photo of Corn Crops by Billy Hathorn, Image 3: Mapping Exercise with Pins – Prof. Brakke
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Image 1: Created with students and colleagues at U. Piloto. Image 2: Designed, cut, flat packed and shipped by BSU students – Prof. Klinger and Vermillion – received, unpacked, assembled and installed in Bogota gallery with students of Universidad Los Andes and Prof. Brakke. Image 3: Working with local artisans, students from U. Pereira and Prof. Brakke on a geodesic dome structure for Minkalab.