

grant • w • kightlinger

the pennsylvania state university
architectural engineering

The goal of this project was to create and communicate an original schematic lighting design for an existing building of my choice. Taking cues from the natural tones of the lotus bloom, I added a subtle accent color. The smooth gradients of light emphasize the organic shapes of the petals. A warm inner glow invites visitors to enter. Strong horizontal elements at the base allow the building to float above the site, mimicking the delicate lightness of a true lotus flower. [tools: Adobe Photoshop CS3]

lotus • temple

spring • 2008

original photo



rendered schematic design sketch



The 2008 Howard Brandston Student Lighting Competition involved the design of a unique lighting system for a modern educational facility. The concept is based on the experience of being lost in an unfamiliar place, but eventually finding your way to the destination. Luminous lines cut chaotically through the spaces to lead and mislead, but become more ordered as the traveler discovers the correct path. [tools: AGI32, AutoCAD]

h o w a r d • b r a n d s t o n

spring • 2008

lobby



video lab



Fraser Centre was a response to a national architectural design competition for a multi-use complex. The sweeping curves of the building encourage the flow of pedestrians through a central walkway with theatres and retail spaces. High-end lofts and offices occupy the upper floors. An original, plate girder-based structural system was devised to allow large balconies to float above the city, creating a dramatic yet graceful form. [tools: Autodesk REVIT]

fraser • centre

fall • 2007

north perspective, night



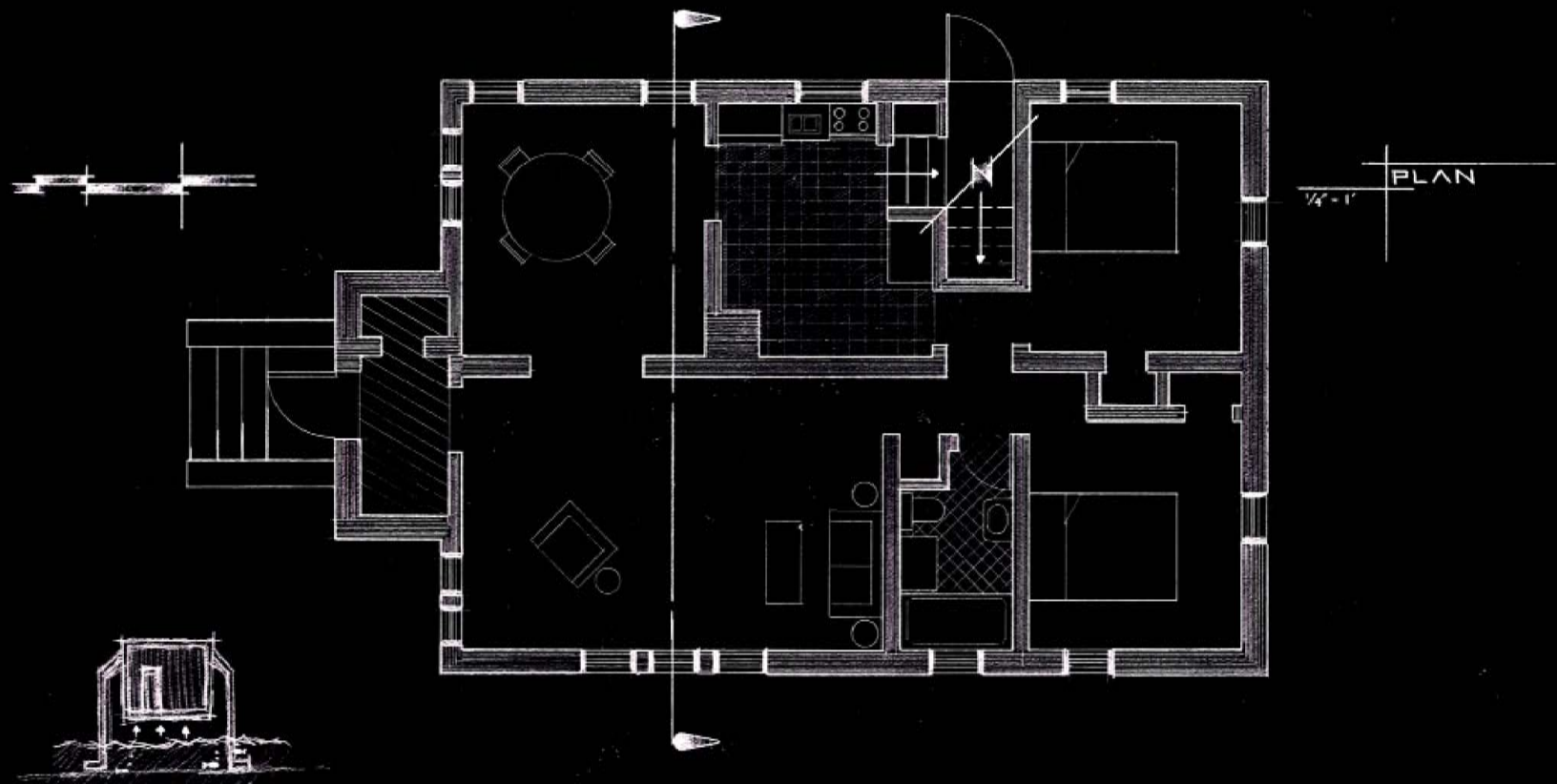
east perspective, day



The Living Box is a small addition into an otherwise traditional looking home, which can be detached in case of emergency, and contains all the supplies needed for use as a temporary shelter and residence. The final design consisted of a transportable, hydraulically operated shelter on stilts for use in case of flood. *[tools: hand drafted, pencil]*

living • box

fall • 2005



I have always been interested in web and graphic design and often spend my free time working on websites or editing photographs. I have also been able to successfully market several engineering-based tee shirt designs on the internet for profit. As my hobby developed, I gained proficiency in several design programs and techniques which continue to aid me in my academic career. [tools: Adobe Photoshop, Dreamweaver, Flash, HTML, SwishMAX]

web / graphic • design ongoing



- + home
- + grant kightlinger
- + building statistics
- + thesis abstract
- + tech. assignments
- + thesis research
- + thesis proposal
- + presentation
- + final report
- + e-studio

BUILDING_STATISTICS	
Building Name	UCI Natural Sciences Unit II
Location:	Irvine, CA
Building Occupant:	The University of California Irvine, Physical and Biological Sciences
Size:	146,075 square feet
Number of Stories:	Five levels above grade (No levels below grade)
Project Team:	Owner: The University of California Irvine Architect of Record: Carrier-Johnson Architects Design Architect: Zimmer-Gunsul-Frasca Architects General Contractor: Hensel Phelps Construction Co. Structural Engineer: BFL Owen & Associates Civil Engineer: Boyle Engineering Mechanical Engineer: IMA Engineers Electrical Engineer: Konsortium 1 Landscape Architect: IMA+ Design
Dates of Construction:	03/17/05 - 09/01/08
Total Building Cost:	\$45,512,240
Project Delivery Method:	Multidisciplinary team bid on partial design documents before



Even as my education has become increasingly technical, I have maintained a firm belief that the most important skill any designer can learn is to understand the interaction between light and the world it illuminates. Without light, art and architecture as we know them would cease to exist. For this reason, I feel that the thoughtful application of light is art in one of its purest forms. *[tools: pencil, colored pencil, chalk]*

hand • sketches

ongoing

