Lighting Portfolio

Studio

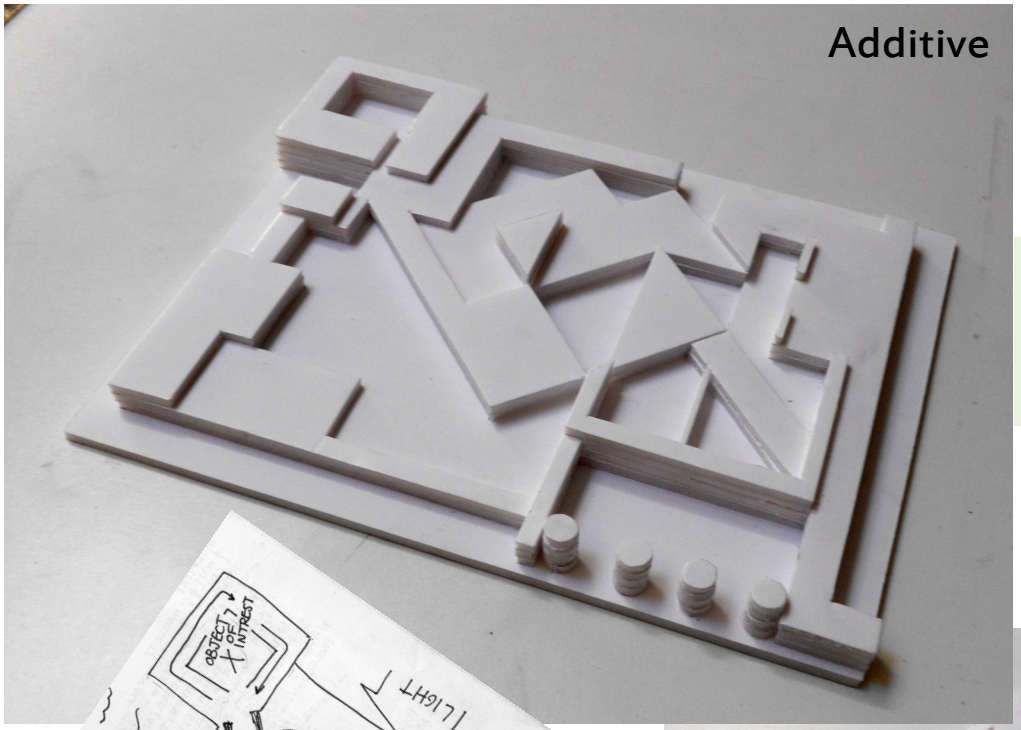
Lighting Journal

Light Structures

Photography

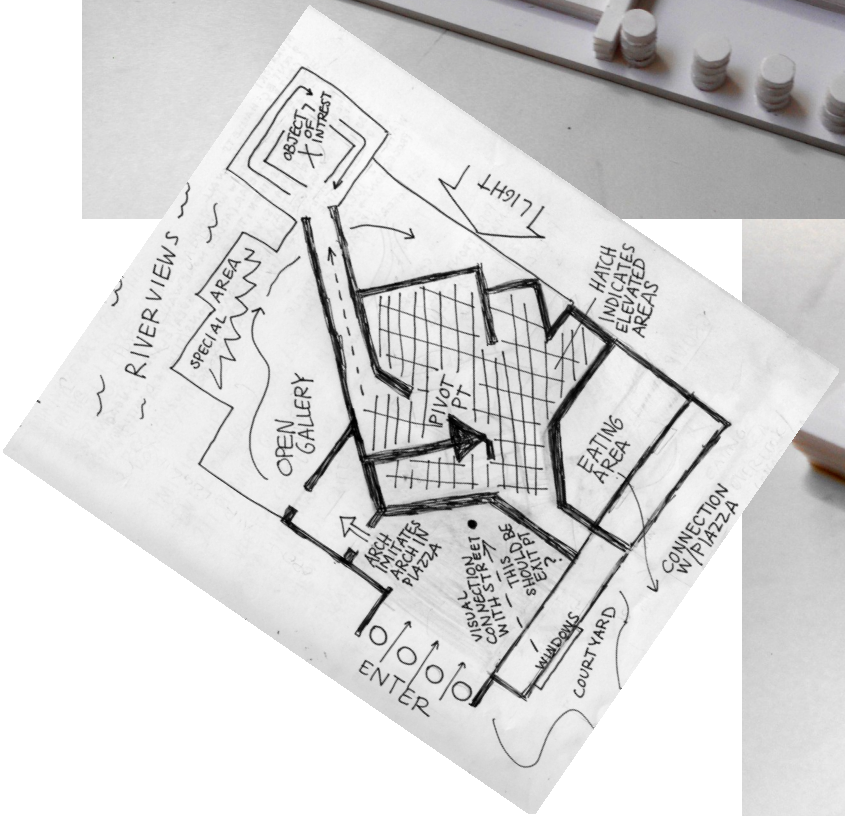
Photoshop

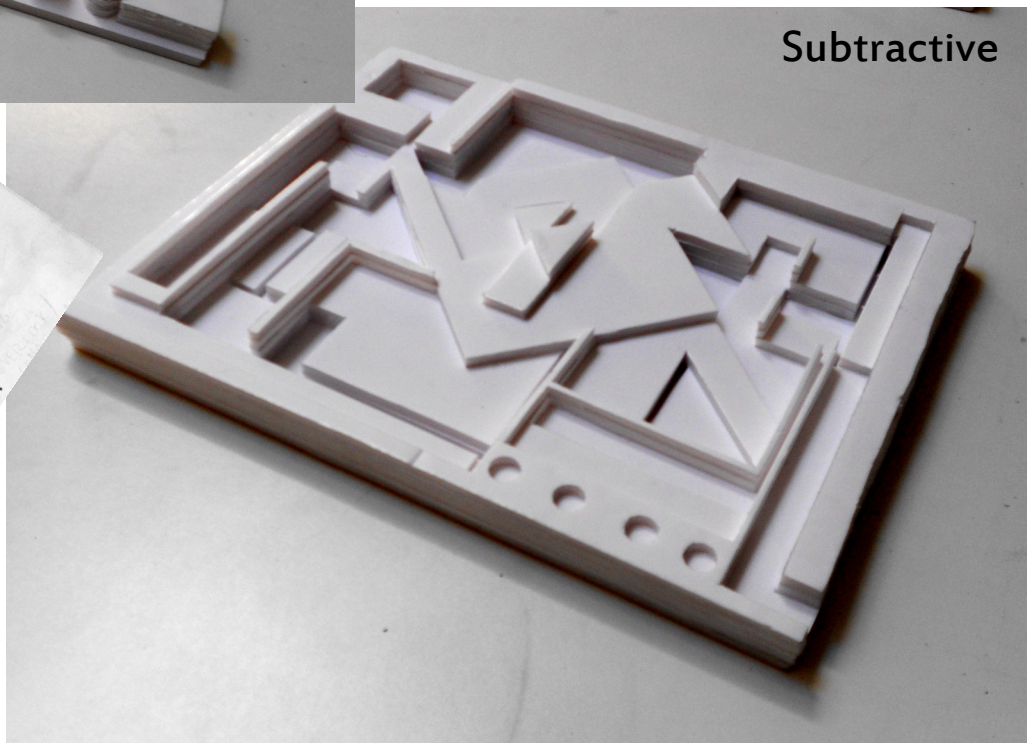
Howard Brandston

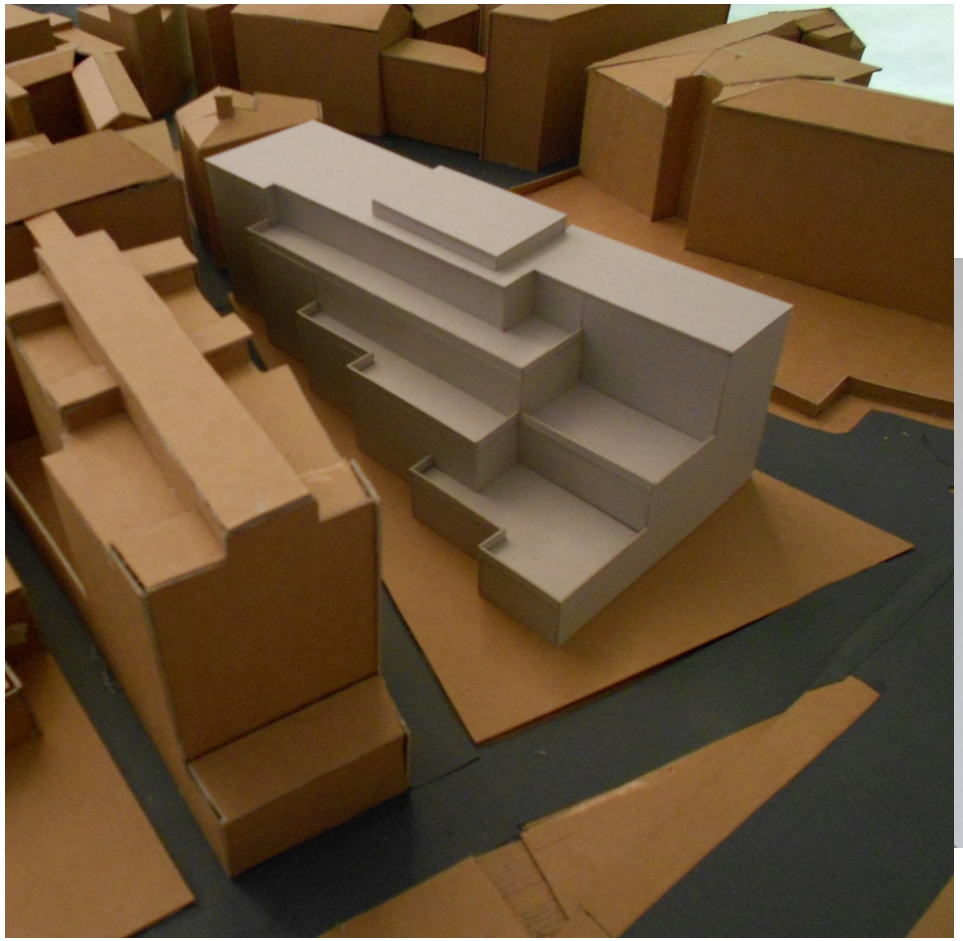


Painting Exercise

Translating a painting into physical models, transforming the models into a floor plan.

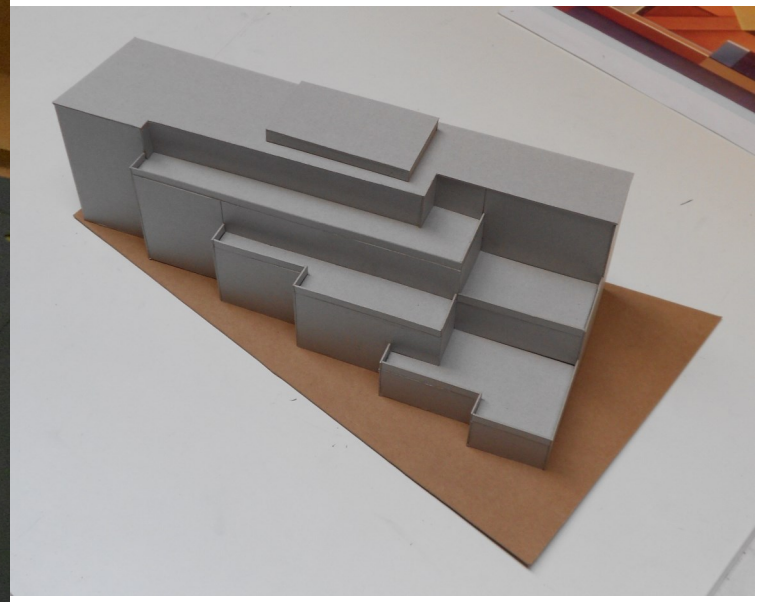




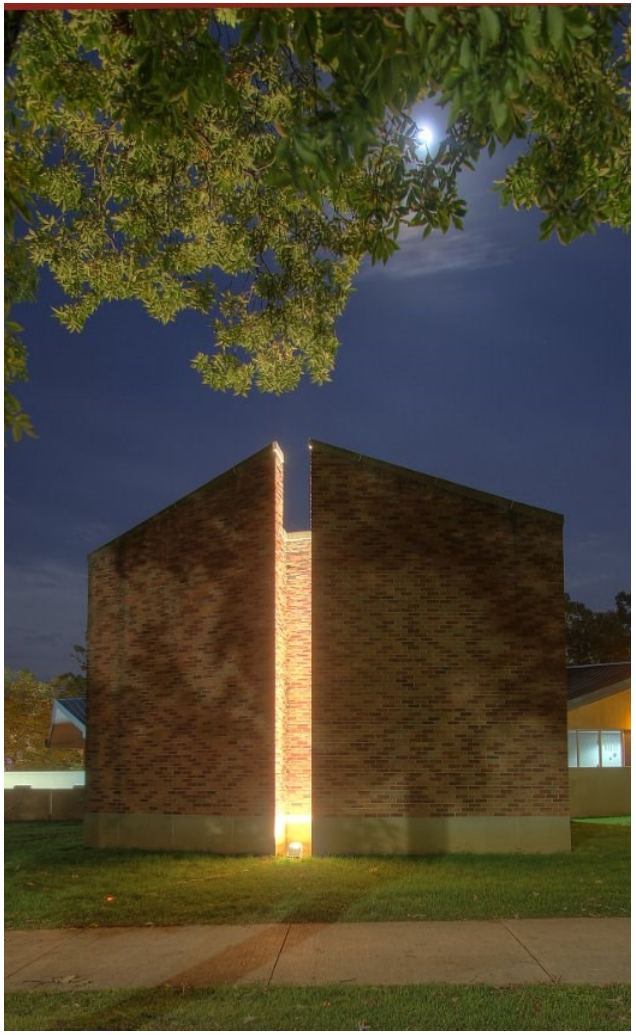


Museum Design

Model for the design of a contemporary art museum along the Tiber River in Rome, Italy.



Revit Model

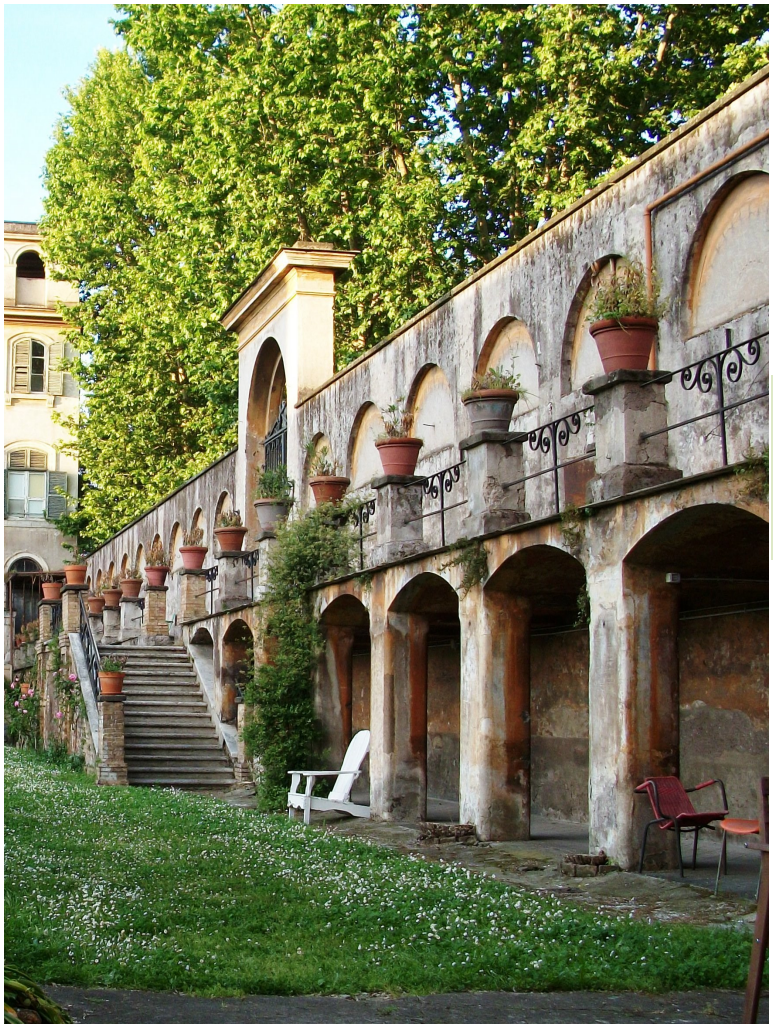


Nittany Lights

Student Design Charratte

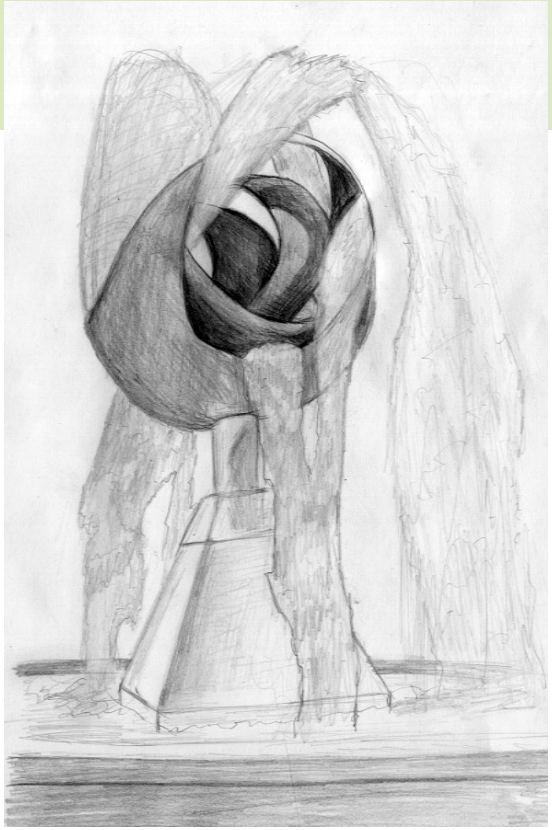
Illuminate the Void

Professional Photographs

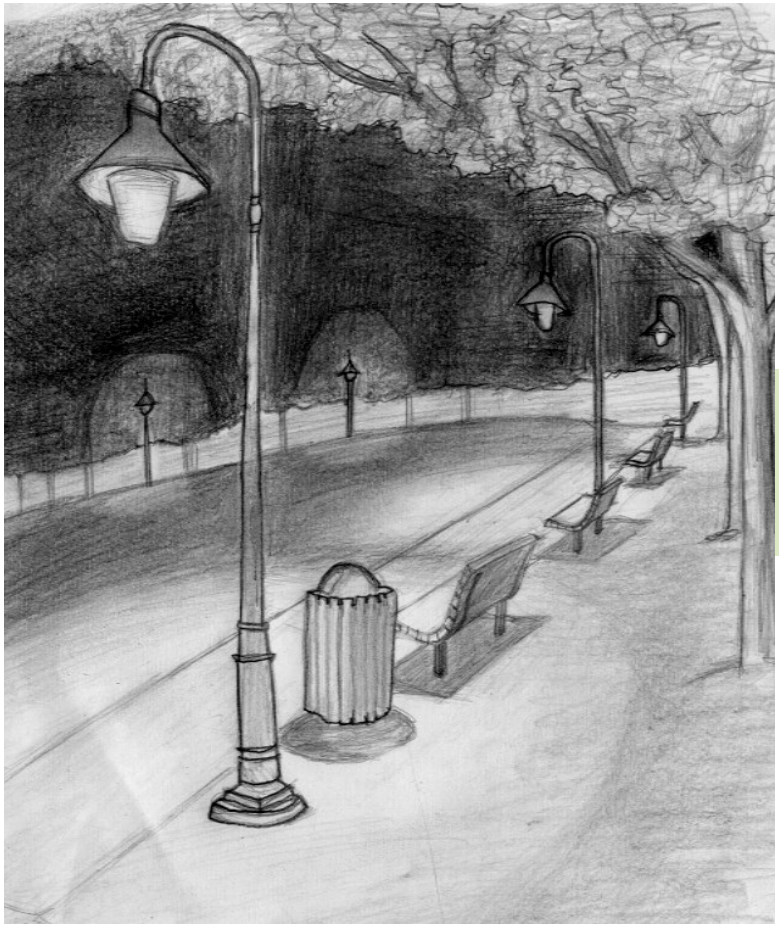


Repetitive /Personal Photo /Rome, Italy
The top half of the wall has arched impressions which accent its structure; the arches are exaggerated by the light which illuminates it. The covered area on the lower half of the wall has a similar impact.

Unique vs. Repetitive



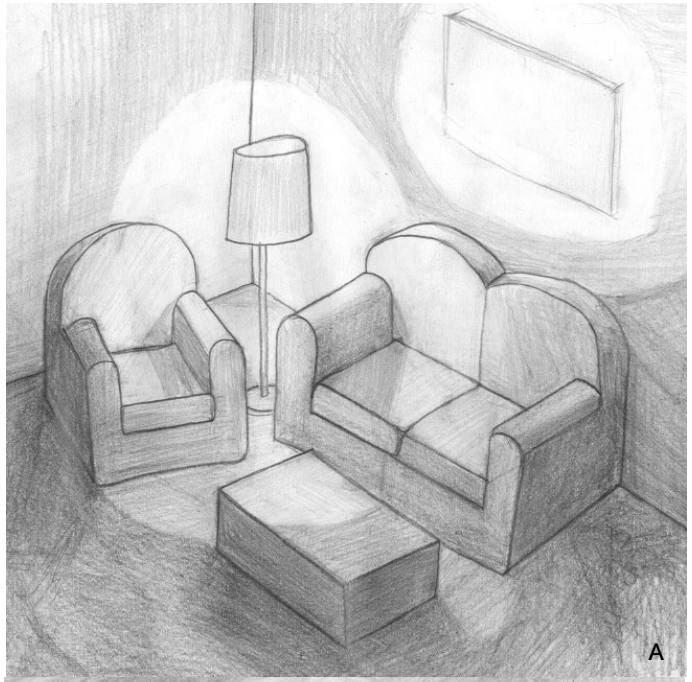
Unique /Sketch /University Park, PA
The sketch depicts a decorative piece of fountain art. Sunlight, water, the sculpture's shape as well as the reflectivity of its metal surfaces create an interesting shadowing effect within.

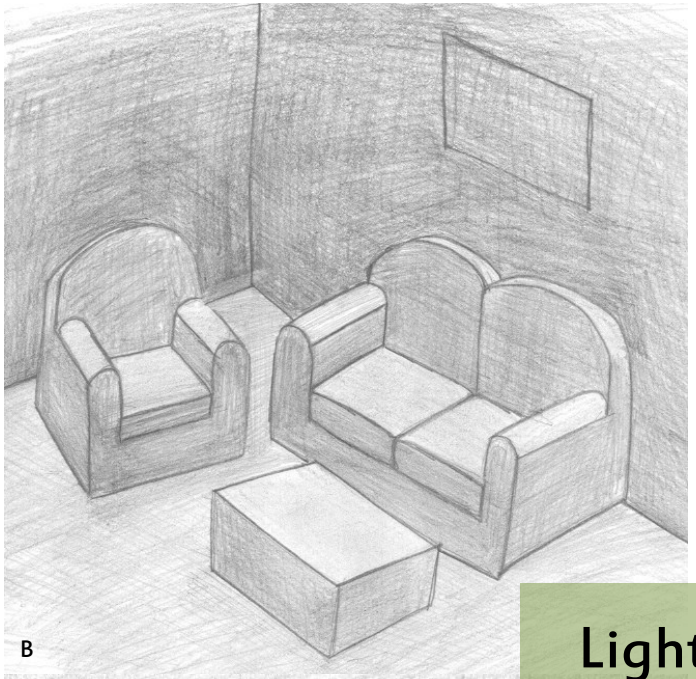


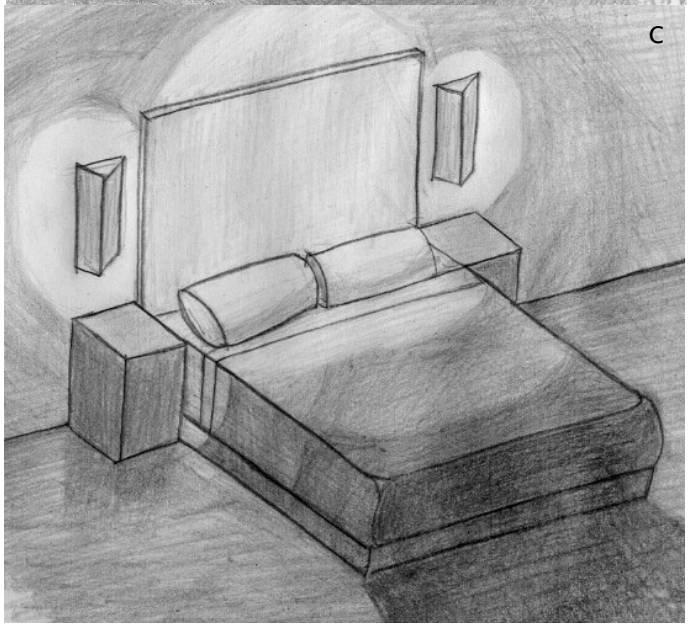
Public /Sketch /State College, PA
This sketch depicts a park at nightfall. The lamps create ambient lighting in the park. Since the park is a public space, it requires a considerably higher level of illumination.

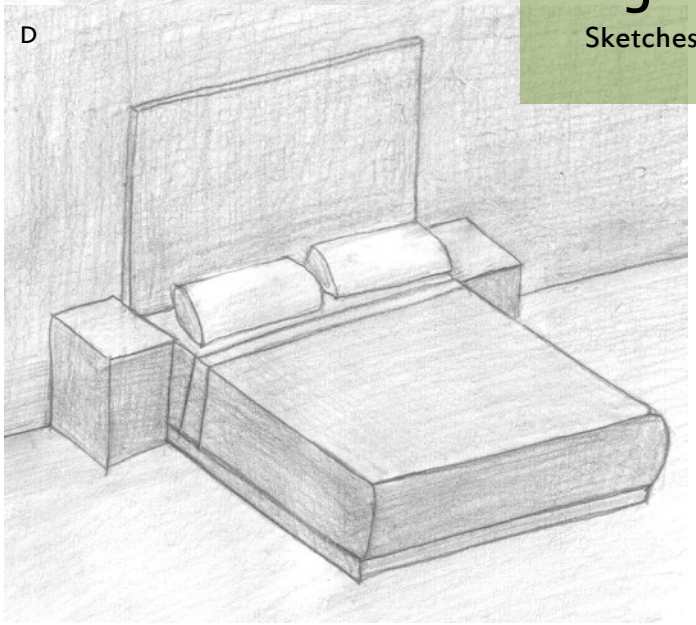
Public vs. Private

Private /Personal Photo /Rome, Italy
This apartment eating area is illuminated solely by the light coming in from the window; The open windows are providing the room with ambient light. The lower light levels and the closed in feel encompass the desired solitude for this setting.









Light Structures

Sketches to represent different lighting modes

Commentary

A. *Relaxation* : The floor light in the corner of the room softly lights the casual seating area. Artwork on the wall is also illuminated.

B. *Tension* : Overhead lighting provides uniform illumination for the space. There is no wall emphasis.

C. *Relaxation* : The headboard is accented to provide desired, non uniform perimeter lighting.

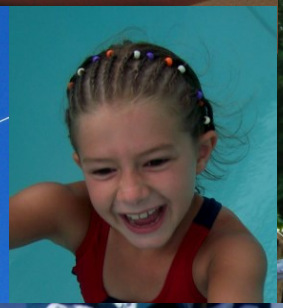
D. *Tension*: Light is distributed uniformly throughout the space. Shadowing is minimal and horizontal surfaces are especially well lit.

Tension

Light Structures

Physical Models constructed to represent different lighting modes

Relaxation



Sara Smiles

Candid photos of my favorite little cousin

Original

The Great Hall

Image redone in Photoshop CS6 with a creative lighting design

Original Image Retrieved from http://www.flickr.com/photos/simongelfand/6473999357/sizes/o/in/photostream/

Fascinated by Fireflies

2013

The HowardBrandston
Student Lighting Design Education Grant

People have forever been fascinated by fireflies; the perfect subject for the lighting design in an educational facility. With spaces in proximity to the art performance area within the building, our design is reminiscent of the way these illuminating insects put on a "show" on a summer night, a blink of light and sweeping motion. The iconic picture of a child holding a firefly in a glass mason jar represents the idea of transparency. The abundance of glass in the building allows us to capitalize on this idea.

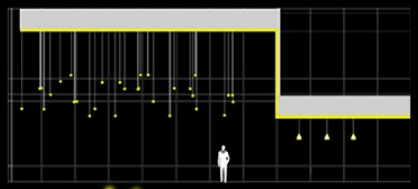
Inside the vestibule, four pendant luminaires signify the beginning of the firefly's journey through the building. The lobby utilizes four curvilinear ceiling slots to demonstrate the fireflies' movement towards the main areas of the building. These luminaires dim, producing a gradient of light which travels along the recessed slots. Recessed can lights are also scattered across the lobby. These dim in two groups, creating slow flashes of light similar to that of a blinking firefly. The featured wood wall and awards area is illuminated by recessed washers. The recessed slot fixtures from the lobby continue into the circulation and café. In the café area, the slot moves horizontally and vertically up the café wall. Directional wall grazers mimic grass on the wall adjacent to the coffee bar. Glass globe luminaires are suspended in the double heighted section of the café seating area. When viewed from the exterior, the café area signifies fireflies captured in a glass mason jar.

Motion

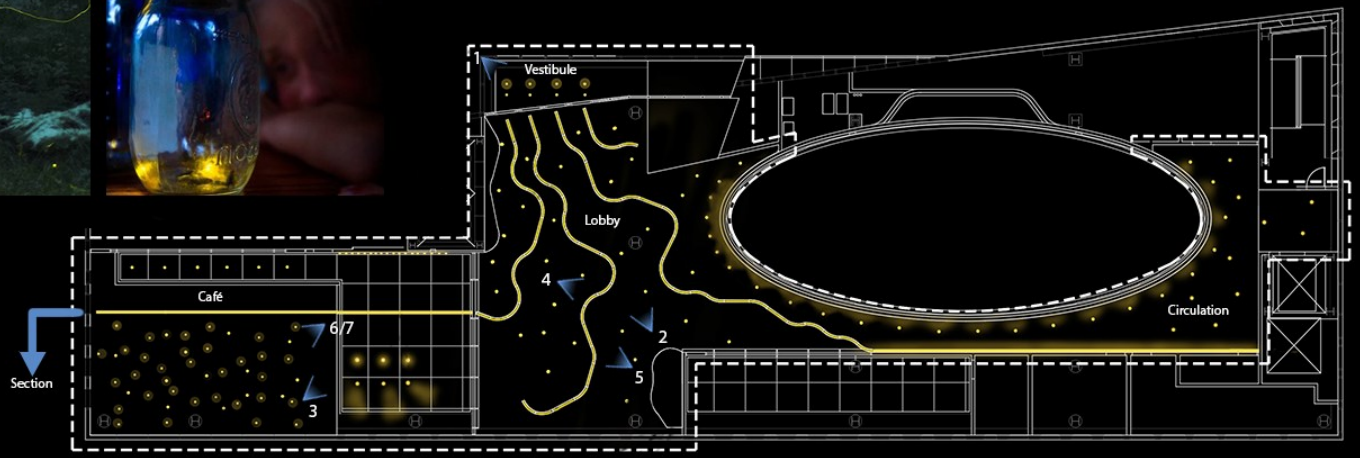
Performance

Transparency

Fascination...



Section



Lighting Plan | Lighting Power Density: 0.946 W/sq. ft.

1

Vestibule | Average Illuminance: 166 lux at full output

2

Lobby | Average Illuminance: 314 lux at full output

3

Café Bar Area | Average Illuminance: 167 lux

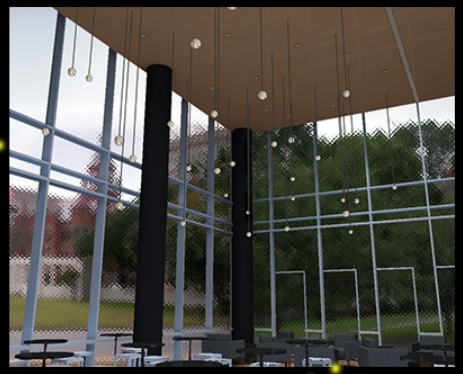
4

Circulation | Average Illuminance: 216 lux at full output

5

Lobby

6



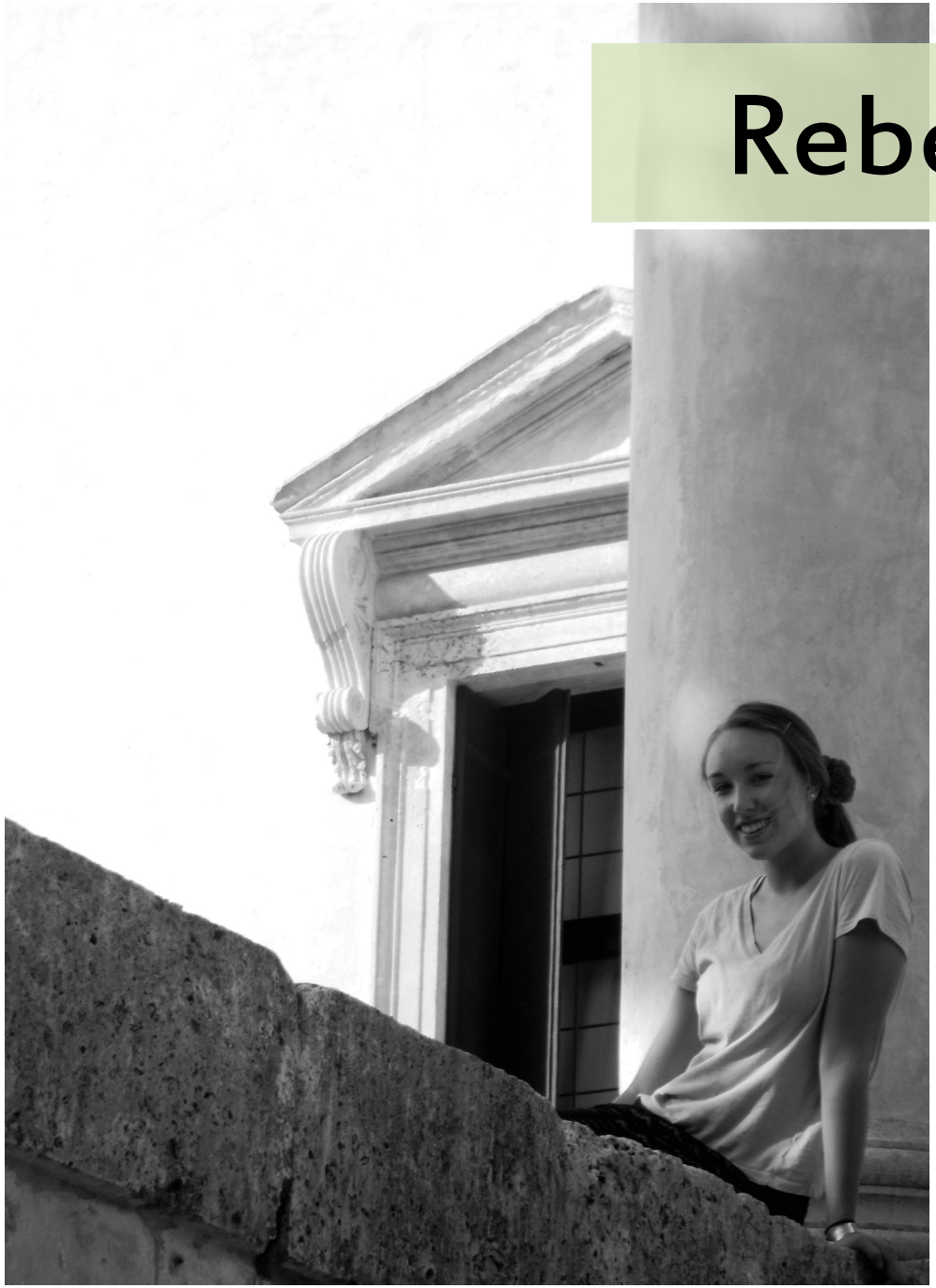
Café Seating | Average Illuminance: 167 lux

7

Café Seating

Dimming: The vestibule and lobby are both on a dimming system. Only one of the downlights in the vestibule will be on at a time – this luminaire corresponds to the path in the Lobby that dims. Each path gradually dims, producing a gradient of light that travels along the recessed slot. Once the entire path has dimmed to 20%, the illuminance returns to full output, and the next path begins to dim. In addition, the lobby downlights are split into two groups that slowly dim between 0-100% output, while the recessed slot fixtures are dimming.

Type	Manufacturer/Catalogue Number	Fixture Description	Lamp	Mounting	Input Watts	Voltage	LLF	Remarks
A	Winona/ Straight 6200-ST-HC-4L-F-277-OAR-CPF-DIM-STD	4' linear section. 4-3/4" aperture. Opal acrylic flushed lens. Dimming Ballast.	1/28W T5	Ceiling Recessed	32	120/277	0.75	3500K
B	Winona/ Full Circle Radius Section 6200-RS-4R-F-277-OAR-CPF-DIM-STD	37.70" arc length section. 4-3/4" wide aperture. Opal acrylic flushed lens. Dimming Ballast.	1/21W T5	Ceiling Recessed	25	120/277	0.75	3500K
C	Erco/Nadir IP67 33832.023	Directional up-light. Spherolit lens, spot. Housed in corrssion-resitant cast aluminum.	LED	Floor Recessed	3	120/277	0.70	3000K
D	Kurt Versen/A1238	Wide distribution downlight, 4-3/8" diameter conoid aperture. Dimming Driver, Dimming is standard 0-10V/10%.	LED	Ceiling Recessed	20.3	120/277	0.70	3500K, 80 CRI
E	Kurt Versen/ A4144	Directional Downlight with 4-3/8" Conoid aperture.	LED	Ceiling Recessed	23	120/277	0.70	3500K, 80 CRI
F	Kurt Versen/A2257	Lens Wall Washer, 4-3/8" diameter conoid aperture. Dimming Driver, Dimming is standard 0-10V/10%.	LED	Ceiling Recessed	23.8	120/277	0.70	3500K, 80 CRI
G	Litecontrol/ws-L6904MO35CWMDPD10-277	4" wide wall slot, 4' long sections. Flushed Lens. Dimmable, wired for 0-10V. Acrylic lens.	LED	Ceiling Recessed	8 W/ft	120/227	0.70	3500K
H	Bocci 14 Series	Clear blown glass spherical housing, 4" standard diameter. Ceiling suspension length adjustable up to 10'. Led driver powers from 1-40 pendants.	LED	Pendant	1.5	120/277	0.70	2900K
I	Philips Lightolier/40471L35U	9" Transparent white glass shade diffuser. Dimmable 0-10V.Suspended from ceiling at a maximum of 120".	LED	Pendant	20	120/277	0.70	3500K
J	FocalPoint Seem4/ FSM4-FL-T5-1C-277-D-G1-B635-WH-1'	Recessed Clear Flushed lens fixture, 4" wide aperture.	1/28W T5	Ceiling Recessed	32	120/277	0.75	3500K

Image Sources
Facination: http://blog.timesunion.com/travelgal/american-museum-of-natural-history-how-to-trick-a-firefly/6385
Motion: http://onlyhdwallpapers.com/wallpaper/fireflies_orange_desktop_1920x1200_wallpaper-270769.jpg
Performance: http://upload.wikimedia.org/wikipedia/commons/2/2a/GluehwuermchenImWald.jpg
Transparency: http://www.firefly.org/firefly-pictures.html

Rebecca L. Slocum