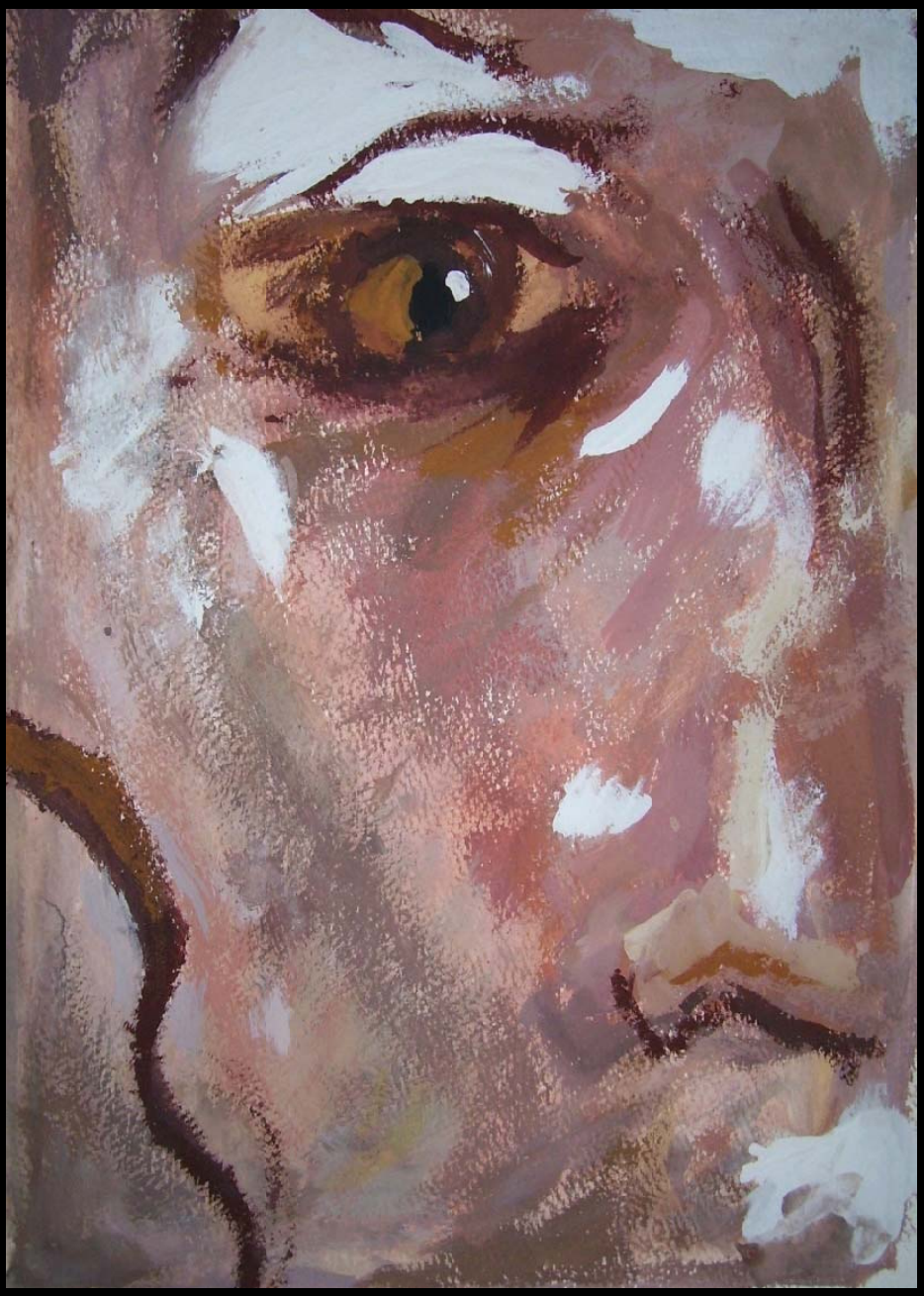
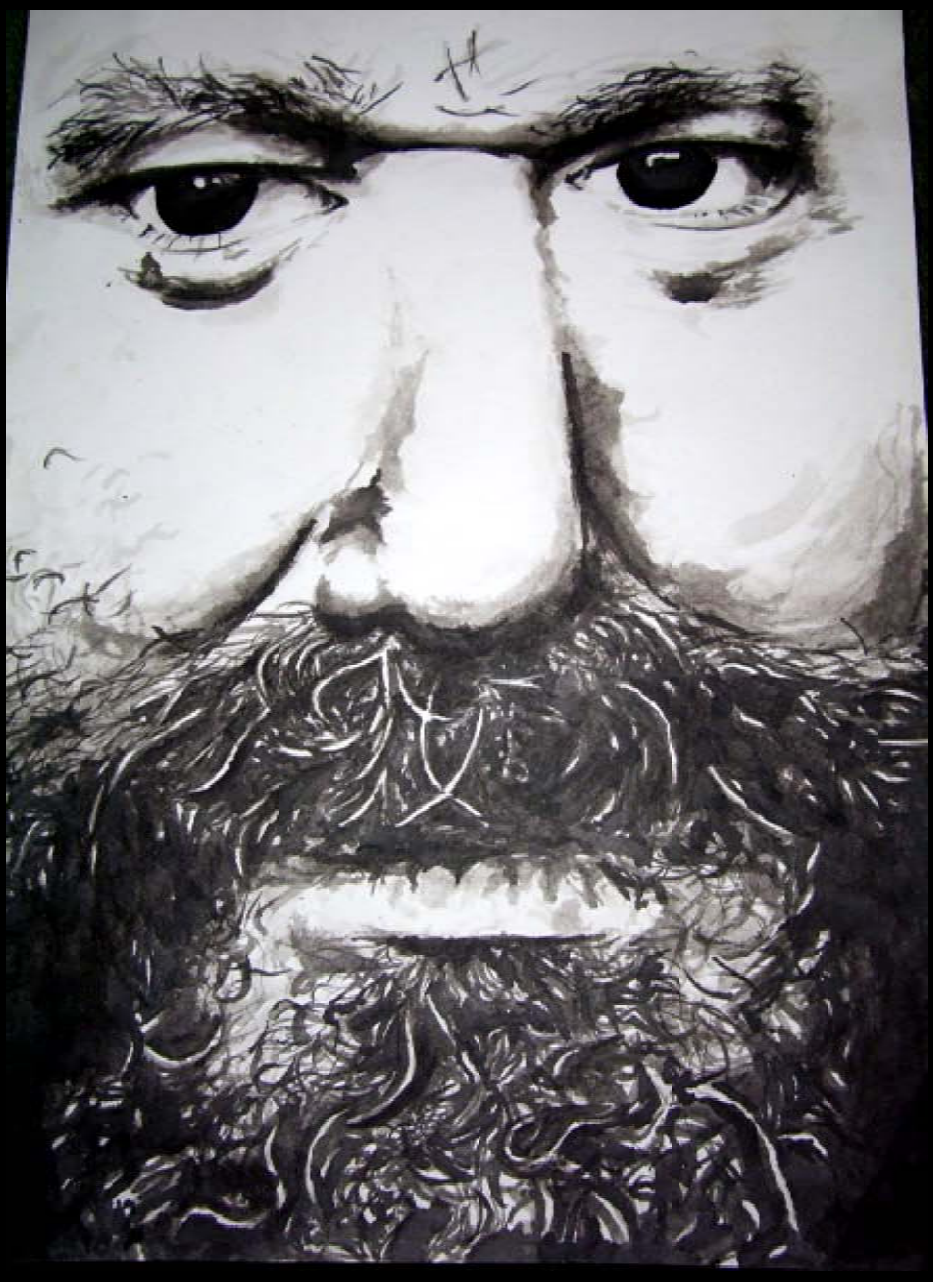

MARISSA GESELL

Pennsylvania State University
MAE/BAE Architectural Engineering
Lighting/Electrical Option
Architectural Studies Minor
May 2009 Graduation

Acrylic Painting

Facial Study





Facial Study

Ink Wash

Sketchbook Drawing

Man and Woman

Panther

Sketchbook Drawing

Sketchbook Drawing

National Geographic

Man Fall off edge of the World

Large Rendering

Oil Painting

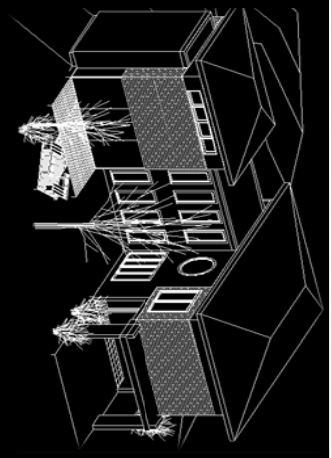
Abstract City

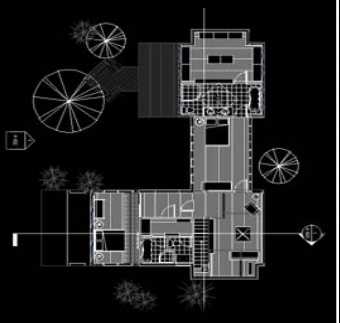
Man in Hole and Portrait

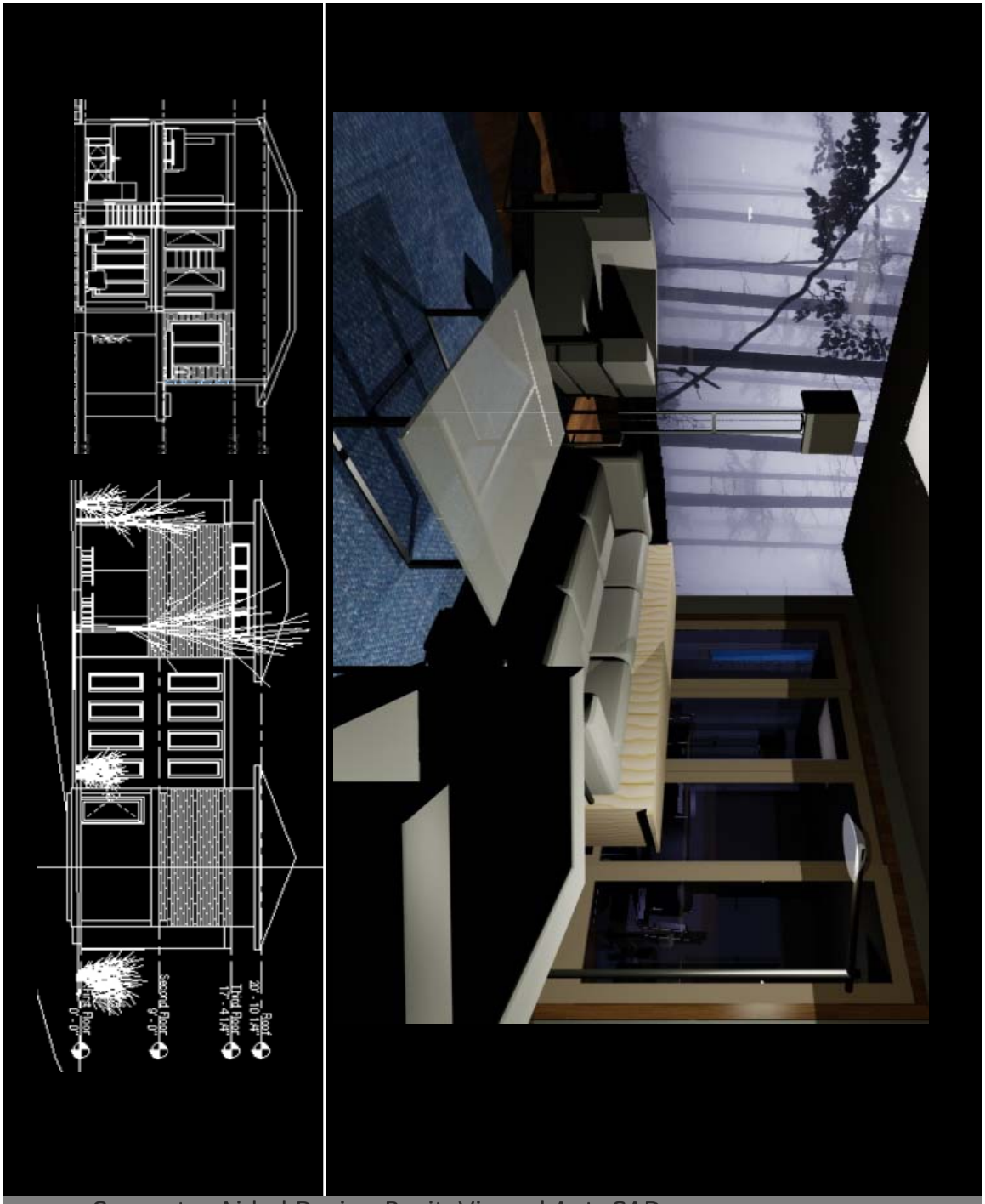
Italian Street Painting

3-D Modern House Model

Computer Aided Design-Revit, Viz and AutoCAD





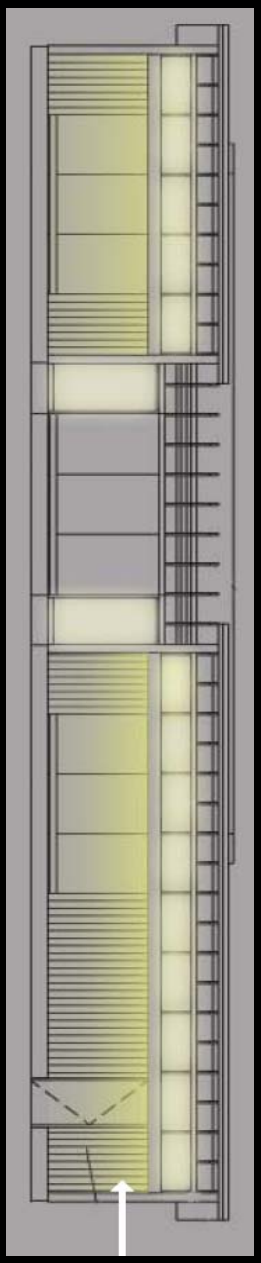


Computer Aided Design-Revit, Viz and AutoCAD

Interior Rendering of Modern House

Tanglewood Public Restroom

HLB Lighting-Schematic Lighting Design

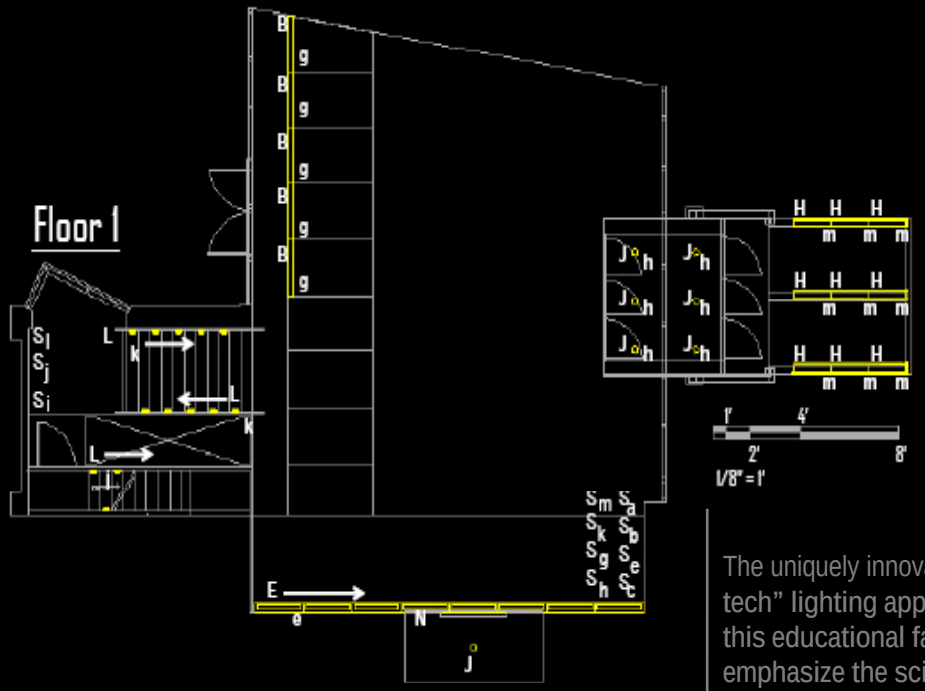


Architectural Studio Design

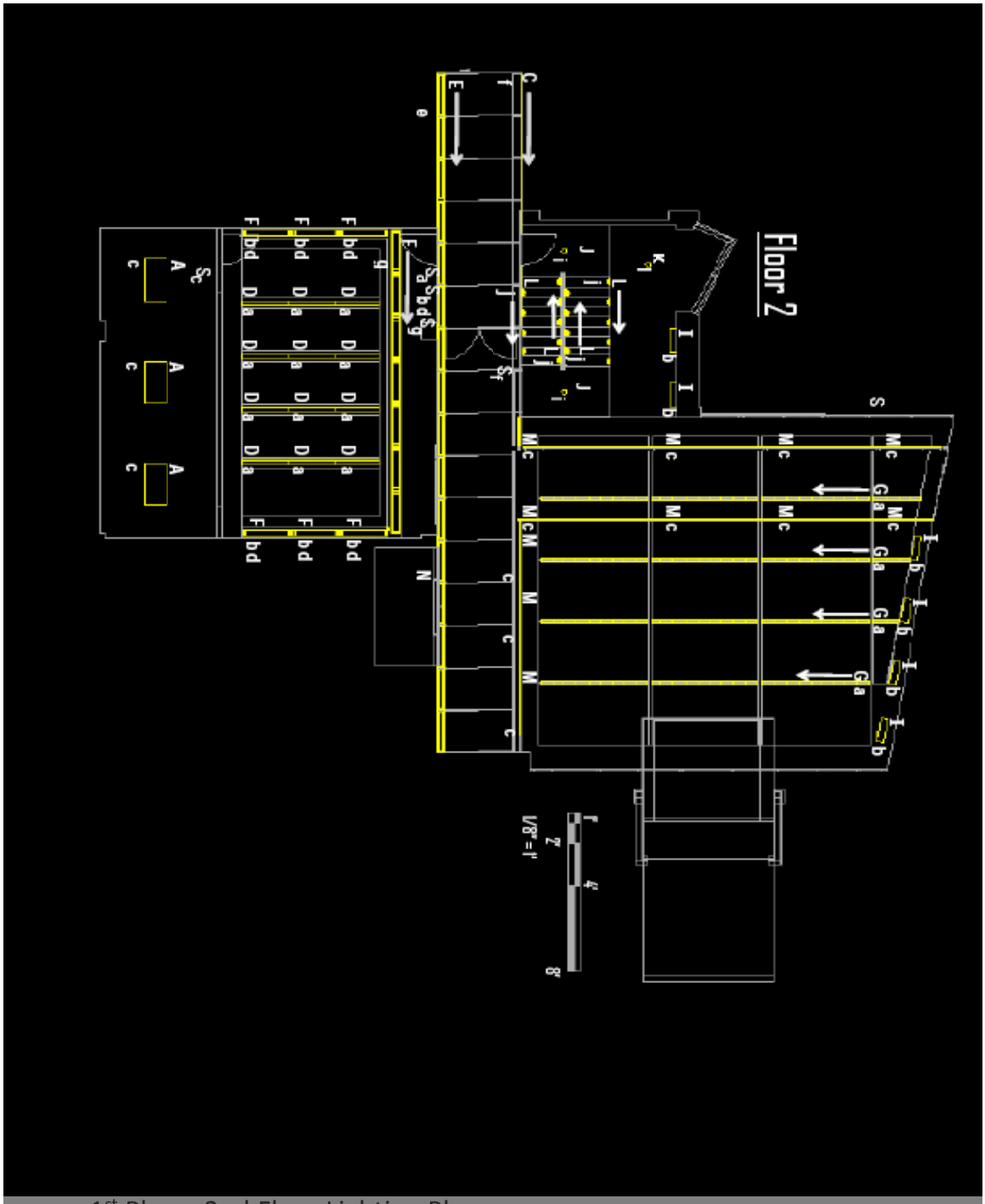
Restaurant Interior

Howard Brandston Education Grant 08'

1st Place- 1st Floor Lighting Plan



The uniquely innovative "high – tech" lighting applications of this educational facility emphasize the scientific functionality of the space . The ideas of circulatory flow, architectural emphasis, linearity, and visual contrast are implemented throughout the lighting design.

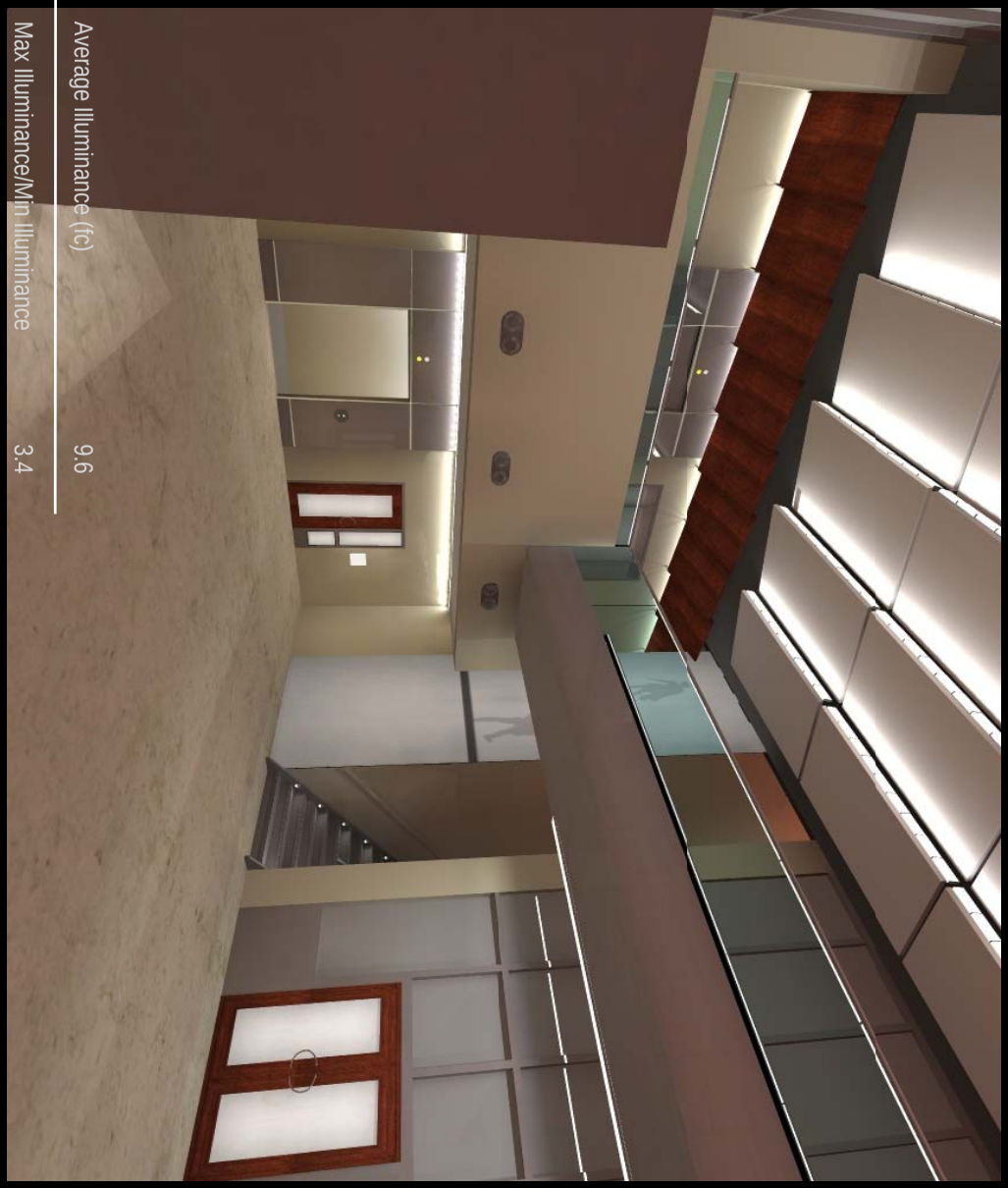


1st Place- 2nd Floor Lighting Plan

Howard Brandston Education Grant 08'

Howard Brandston Education Grant 08’

1st Place- Science Building Lobby at Night



Average Illuminance (fc) 9.6

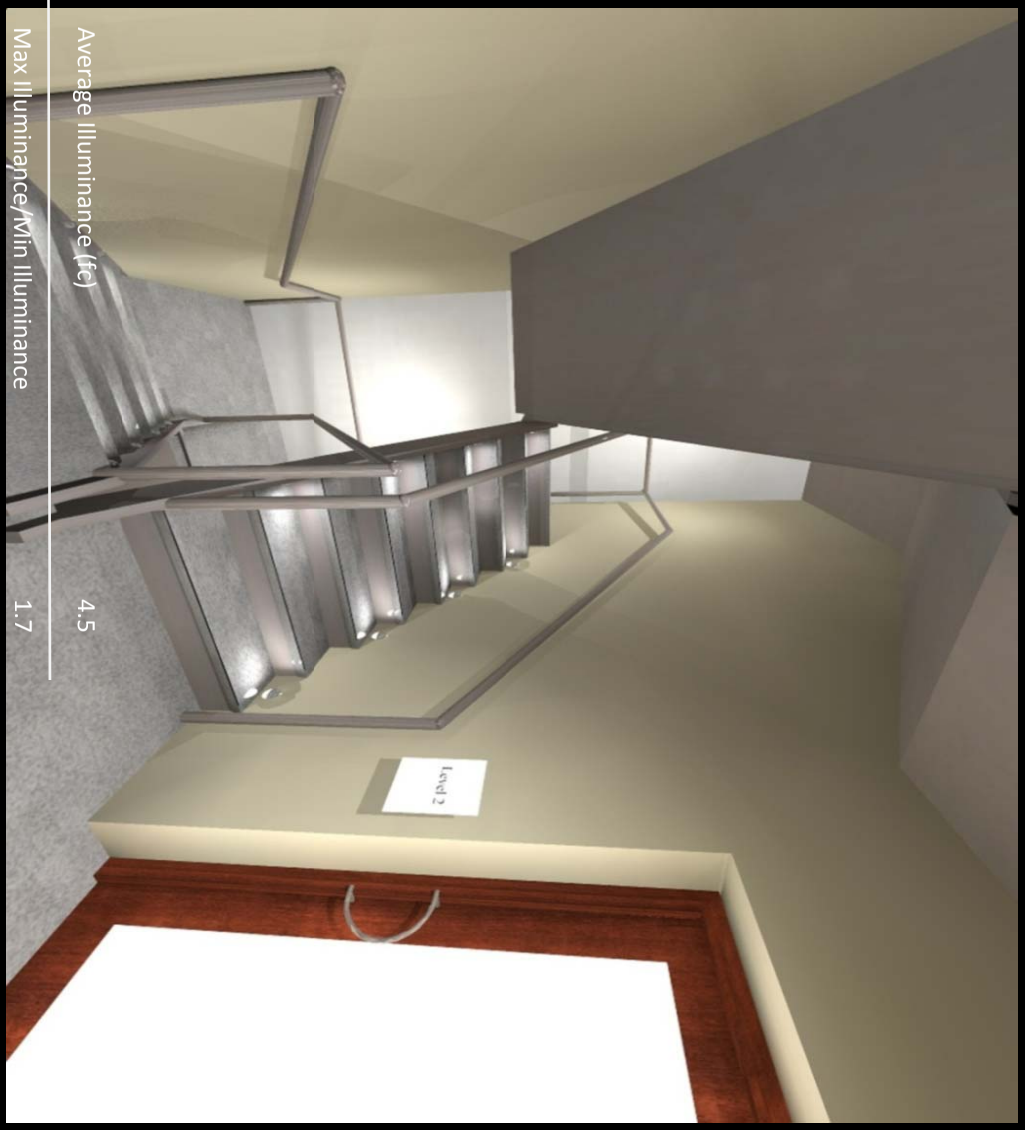
Max Illuminance/Min Illuminance 3.4

1st Place- Science Lobby During the Day

Howard Brandston Education Grant 08’

Howard Brandston Education Grant 08’

1st Place- Science Building Stairwell



Average Illuminance (fc) 4.5

Max Illuminance/Min Illuminance 1.7

Average Illuminance (fc) 9.4

Max Illuminance/Min Illuminance 2.3

1st Place- Science Building Corridor

Howard Brandston Education Grant 08’

Howard Brandston Education Grant 08'

1st Place- Science Building Classroom Setting

Average Illuminance (fc)	27.8
Max Illuminance/Min Illuminance	2.1

Howard Brandston Education Grant 08'

1st Place- Science Building Projection Setting

Average Illuminance (fc)	5.9
Max Illuminance/Min Illuminance	5.6

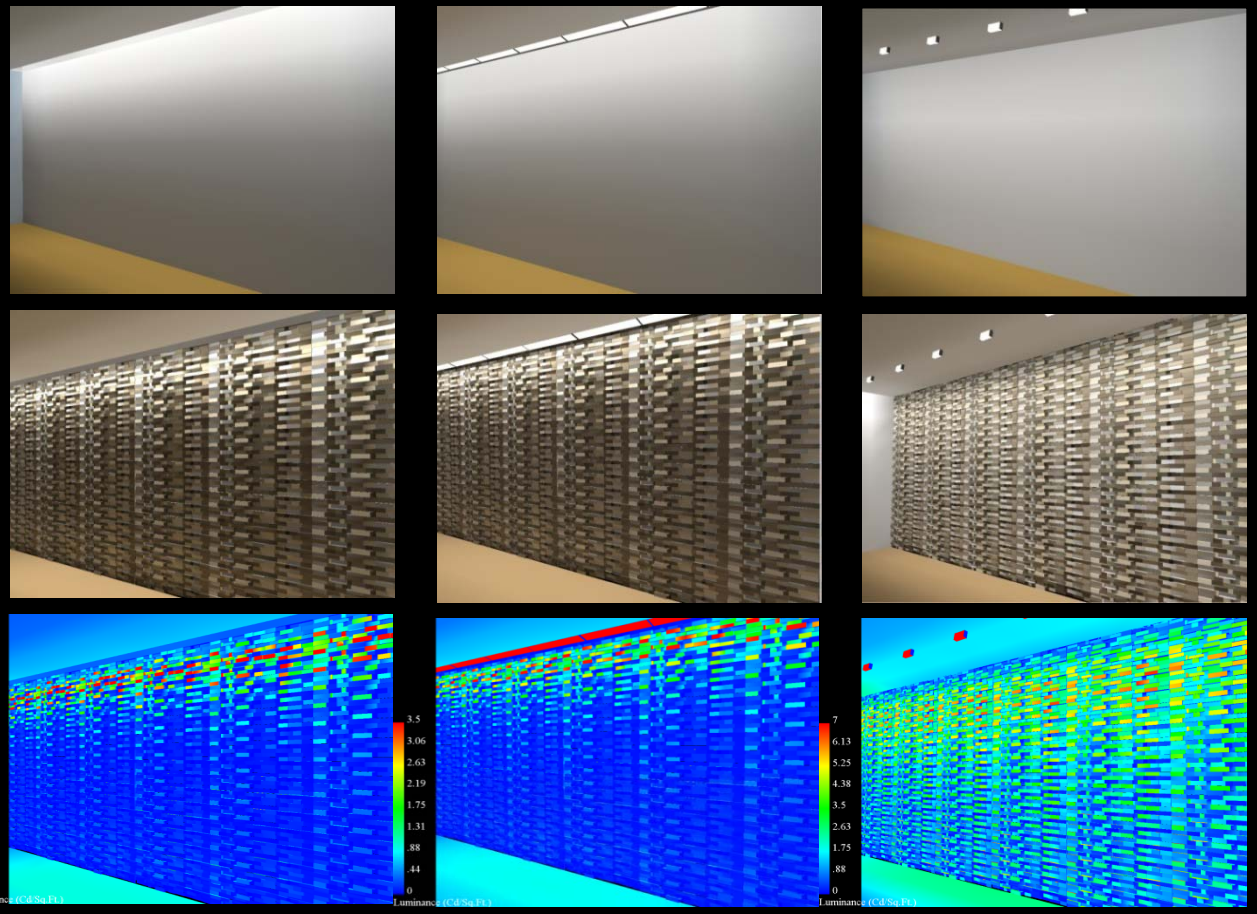
Lighting a Vertical Surface

Fifteen Scenarios of Wall Grazing and Wall Washing

#1 Recessed LED
Wall-slot

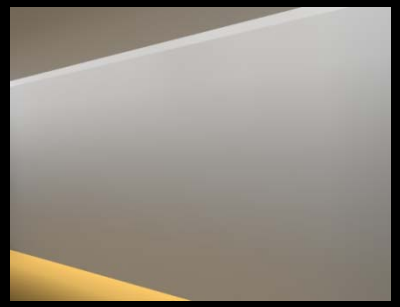
#2 Semi-recessed linear
fluorescent wall-washer

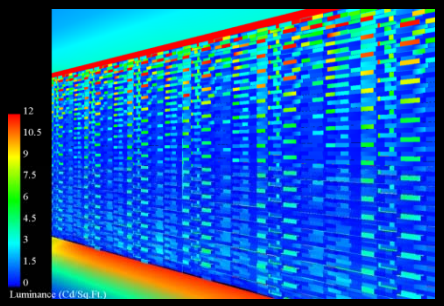
#3 Semi-recessed metal
Halide wall-washer

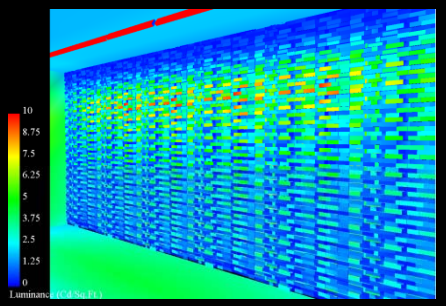


#4 Recessed Halogen Wall-slot

#5 Semi-recessed linear fluorescent wall-washer







Luminaires

1

#2

#3

#4

#5

Fifteen Scenarios of Wall Grazing and Wall Washing

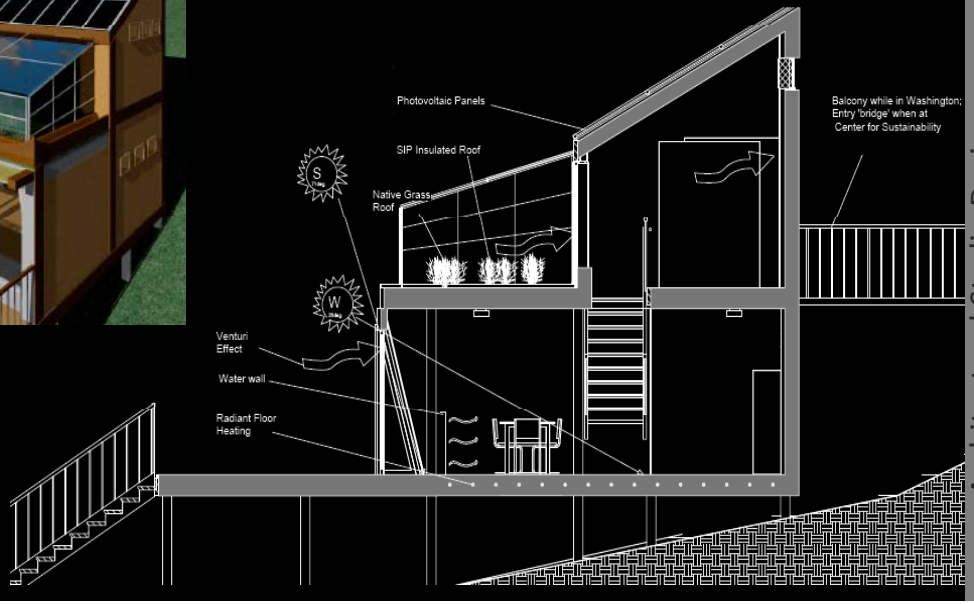
Lighting a Vertical Surface

Lighting Model

Flynn Impression Study-1”-1’ Scale

Summer Solstice

Winter Solstice



Architectural Studio Design

Solar Decathlon House

2008 Nittany Lights

Patriotic Theme –Lighting Landscape and President's House

Patriotic Theme –Lighting Landscape and President's House

2008 Nittany Lights

Façade Lighting

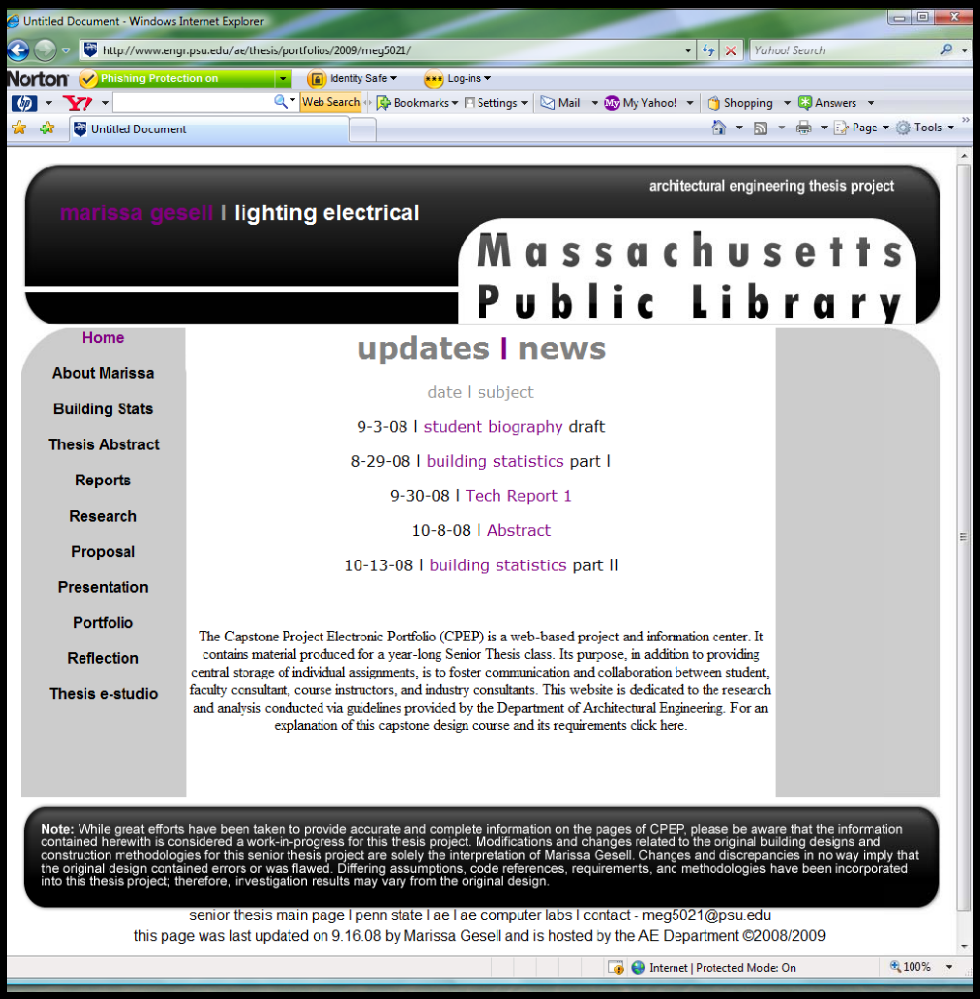
Schematic Lighting Design

Architectural Studio Design

Fraser Center Multi-Complex

Thesis

Website Design- In Progress



Massachusetts Public Library

Construction

Size
- 35,000 SF Renovation
- 70,000 SF Expansion
- 105,000 SF Total

 # Stories
- 3 above grade (6 total)

Original Contract Sum
- $70,000,000

Dates of Construction
-Januaray 2007- April 2009

Project Delivery Method
-Design-Bid-Build

Joint Venture Construction

Electrical

2000 kVA service entrance transformer
-NSTAR Electric
-480 V primary
-208/120 V secondary

Emergency Power
- Diesel Generator
-300kW/375kVa, 480 Y/277 V

Lighting

Daylighting and Occupancy Controls
-in conjunction with **Lutron dimming system**

Over 60 fixture types with a variety of lamps
-fluorescent, HID, LED, and incandescent

Mechanical

Forced air heating and cooling
-with additional fin tube and fan coil units

No units on ceiling (due to code)
-All systems located in main basement
-or located in attaic space
-5 AHUs total

Two cooling towers
-hidden in mechanical well on third floor

Architectural

State-of-the-art curtin wall facade
-provides daylight,views and accessibility

New children's wing
-featuring a tree-like ceiling

A young adult area
-with media stations and informal seating

Below grade parking for 70 cars
-allows for above grade green space

Underground auditorium
-provides 230 seats and expands program

Smaller craft and story rooms
-allow for private quiet spaces

Large open stacks/seating
-open floorplan and abundant daylight

Structural

Masonry Wall Construction-(historic)
-Field stone with granite or brownstone

Wood Framing- (historic)
- reinfoced with internal steel skeleton
- sits on concrete spread footings
-footings located **under a 5" slab on grade**

Steel Frame System-(addition)
-with **chvron wind bracing**
-moment connections for cantilevered beams

Reinforced Concrete Foundation walls-(addition)
-Used for 3 stories below grade
-CIP formed slabs and beams
-9" or 10" slabs on grade
-concrete spread and strip footings

Sloped Roofing (historic)
-Slate shingles
-A vapor barrier and plywood deck

Flat Roofing (addition)
-Thermoplastic membrane
-Rigid insulation and vapor barrier

Marissa Gesell I Lighting-Electrical I Architectural Engineering

Building Abstract

Thesis

PENNSTATE

1855

MARISSA GESELL

2284 Oak Leaf Drive
State College, PA 16803

(814) 571-0810
meg5021@psu.edu

Objective

To obtain a full time position within a lighting design firm in which I can offer my artistic skills and knowledge in the field.

Education

The Pennsylvania State University, University Park, PA

Master and Bachelor of Architectural Engineering *-Overall GPA 3.33*
5 year professional degree – ABET accredited
Option: **Lighting/Electrical** *-Master GPA 3.92*
Architectural Studies minor
Participated in Sede de Roma- study abroad program *-Summer 2007*
Graduating May 2009

Work Experience

Horton Lees Brogden Lighting Design, Lighting Design Intern *-Summer 2008*
Completed design renderings and lighting design reports
Calculated power density and illuminance/luminance values
Created lighting plans and schedules
Corresponded with Manufacturers, Lighting Representatives and Architects.

Gesell Construction, Assistant *-Summer 2003-2006*
Read and interpreted architectural working drawings
Painted rooms, laid tile and replaced carpet
Completed various small projects

Syndey Mac Clothing Boutique, Assistant *-Summer 2006-Present*
Renovated boutique's layout and aesthetics
Managed shop and assisted in design choices of merchandise
Suggested new ideas to increase efficiency and raise sales

Awards

1st Place Howard Brandston Student Grant 2008
1st Place IES Philadelphia Chapter Student Award 2008
Deans list

Activites I Skills

Architectural Design Computer Experience-
AutoCAD 2009, Revit Architecture 2009, Viz, Adobe Photoshop CS3,
AGI, Com-check, Adobe Illustrator CS3

Language Proficiency-
Spanish

Illuminating Engineering Society-
Active member and Treasurer

Travel Experience

Switzerland, Italy, France, Germany, England, Spain, Netherlands, Singapore, Indonesia

Interests

Drawing, Painting, Photography, Skiing, Snowboarding, Playing Piano, Dancing