

Lighting Studio 1: Light, Vision, & Representation - PGLT 5001, CRN 1704, Fall 2017

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Project 2 – SCE Disaster Preparedness Intensive

Assignment 2A: Due Monday, September 11

Assignment 2B: Due Tuesday, September 12

Assignment 2C (FINAL): Due Thursday, September 14 at 4:30pm

Disaster is, by definition, an *ill-starred* event.
It is never convenient.

During the week of 9/11-9/15, Parsons SCE will stage a week-long, school-wide intensive about **Disaster Preparedness in NYC**, in collaboration with The Japan Foundation and The New School's Zolberg Institute on Migration and Mobility. As part of this Intensive, Lighting Studio will 1 will conduct a week-long exploration of lighting needs during an urban blackout condition.

This assignment is intended to:

- Introduce site analysis tactics including observation, data collection, and critical thinking.
- Introduce functional qualities of lighting design including the source-task relationship
- Establish a hands-on lighting design methodology through physical mockup and testing.

ASSIGNMENT 2A (Individual): Home Lighting Tasks

First, review all NYC disaster background information located in the Course Documents folder on Google Drive

Then, all students are to identify 5 domestic tasks that will need to occur under “black out” conditions. Over the weekend, review the existing lighting you have in your home that is used to accomplish these tasks. Document the task lighting through photography, written narrative, sketching/diagraming, etc. Think critically about the lighting quality in terms of light levels, contrast, shadows, and direction.

Deliverables: 5 Page PDF (8.5x11) with 1 task per page, each including the following

- On page, title the task
- On page, one photo of the task being completed under “normal power” lighting conditions showing the light source
- On photo, identify primary task surface
- On page, include a task title, and 1-2 sentence written description of the quality of light that best supports the task. Focus on shadow and direction of light
- On page, 1-2 sentence critique of lighting solution shown in photo - can be positive or negative.

Finally, Self select 2 person teams to work on the remainder of Assignment 2. Team members cannot be roommates.

ASSIGNMENT 2B (Group): Task Analysis and Threshold Studies

As pairs of two, narrow down your 10 collective tasks to 3 that will be the basis of your study. Consolidate and refine notes to clearly communicate the context/condition.

Using illuminance meters checked out from light lab, take them home and measure the illuminance levels for the three chosen tasks under “normal power” conditions. Document the data collected. Then consider how much

lower the light level could be to still accomplish your tasks in the event of a blackout. Test this at the task sites through the use of dimmers, replacing light sources, or other hand/held mechanical means. Document the lowest illuminance levels (threshold) you determine to be feasible for each of three tasks using the light meters.

Deliverables: 3 page PDF (8.5x11) with 1 task per page, each including the following:

- Photograph of existing/every day lighting condition and illuminance meter reading(s)
- Photograph of threshold lighting condition and illuminance meter reading(s)
- Include short (1-3 sentence) written narrative about why you think you were able to lower the light, or why you may have wanted to increase it or change it...

ASSIGNMENT 2C (Group): FINAL PRESENTATION

Each group will be provided with the same light source. Although the light source is readily available and familiar to most urban dwellers experiencing blackout conditions, the specific characteristics of this light are not designed to support domestic tasks. The focus of this exercise includes:

- Identify appropriate lighting design criteria (e.g. illuminance levels, shadow qualities, distribution) for a series of domestic tasks that are appropriate during blackout conditions
- Design and prototype ways this light source can better address this criteria

Using every-day materials that you source yourselves and Luminol optical film provided to you, manipulate the light quality of the given source to meet the threshold light levels and qualitative goals you developed in Assignment 2B. Take into account how and where the light sources will be placed or mounted for each task. Consider visual comfort as well as functionality.

Manipulation tactics can include but are not limited to lensing, dimming, diffusing, aiming, reflecting, filtering, etc.

Deliverables: 6 page PDF (8.5x11 – Landscape) using InDesign template provided.

- Page 1 – Title Slide with Course Title and Group Names
- Pages 2-3 – Task Analysis and Documentation of “Normal Power” Condition
- Pages 3-6 – 1 page per final task solution.
 - Context Photo showing solution being used for task
 - Detail Photo or diagram showing how source was manipulated
 - Illuminance levels and any other data produced to support manipulation tactic.

DRAFT PDF file and hardcopy of all documentation (6 pages max) is due at start of class on Thursday September 14th. The FINAL PDF file (uploaded to Google Drive) by 4:30pm on Thursday, September 14th.