

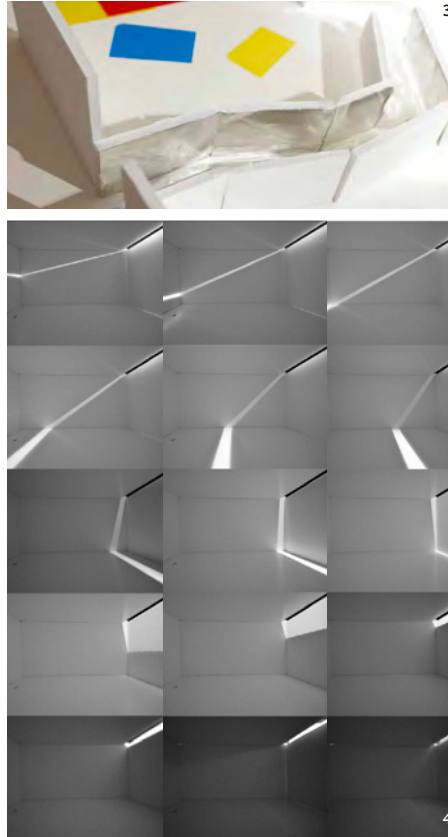
Ted Landrum

**STUDENTS:** **M1** Thomas Crossman, Yiqiao Hao, Lucas Harle, Bryan He, Matthew Woloschinivsky, Qiuyi Zhang;  
**M2** Emeil Alvarez, Zaid Bin Tanveer, Ben Bosiak, Francis Garcia, Maryam Haghshenaslari, Stefan Klassen, Emily Pawluk.



*What light makes casts a shadow and the shadow belongs to light...*  
 — Louis Kahn, *Silence and Light* (1968)

*For the rest of my life I will reflect on what light is.*  
 — Albert Einstein (1951)



**ARCHITECTURAL LIGHTING & SHADOWS** *In making for ourselves a place to live, we first spread a parasol to throw a shadow on the earth, and in the pale light of the shadow we put together a house.*  
 —Jun'ichiro Tanizaki, *In Praise of Shadows*

Lighting is one of the most interesting, poetic and fun facets of architecture. Slight changes in lighting can dramatically transform the atmosphere, perception and experience of a place. There can be no light without shadow; no shadow without light. Without the depth and definition of shade and shadow we cannot perceive the edges, shapes, volumes, textures, and qualities of any surface, any object, any space or place. Furthermore, as Louis Kahn understood, all materials are “spent light.”

In this course, students discover new ways of exploring lighting as an integral element in architecture and design development. Students study the exemplary light and shadow play of artists and architects. They also meet with experts in lighting, and have a chance to inspect contemporary lamping equipment. Students visit local sights where daylighting is crucial to the architecture, and meet with architects involved in the design decisions. Students learn fundamentals of how to construct solar path diagrams with a gnomon. They rediscover architectural implications of the solstice and equinox, and solar orientation. Students learn about lighting concepts and vocabulary, units of measuring light, and methods for modelling light digitally and physically. Students are exposed to a wide array of literature on the subject, both technical and theoretical. Throughout the course students work on their own light and shadow experiments, building 1:20 scale models of lighting conditions, studied through careful iterations and photography (depicted here). Students gather highlights from all they've learned in this course in a final Light and Shadow Book, illuminating the depth of their discoveries.

1) Lucas Harle, diffuse light studies; 2-3) Stefan Klassen, light tunnel model and coloured lighting effects, inspired by Peter Zumthor's hollowing strategy — bringing light and colour deep inside a space; 4) Zaid Bin Tanveer, study of refractive light and movement.