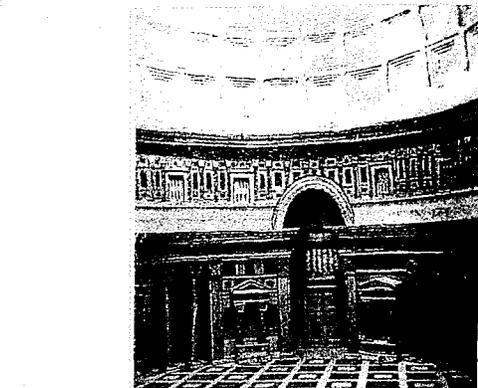
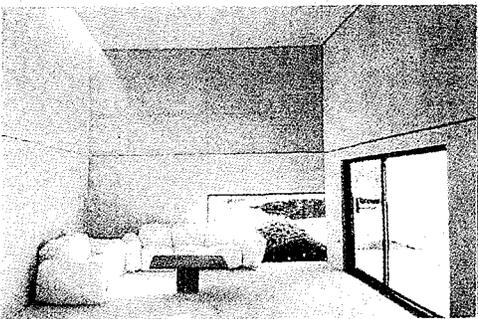
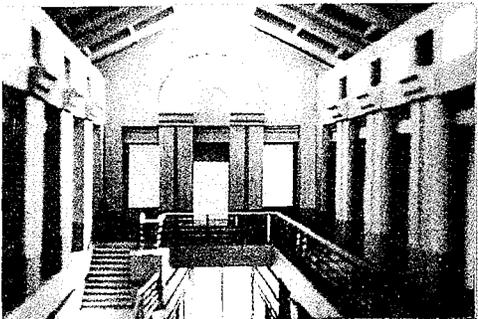
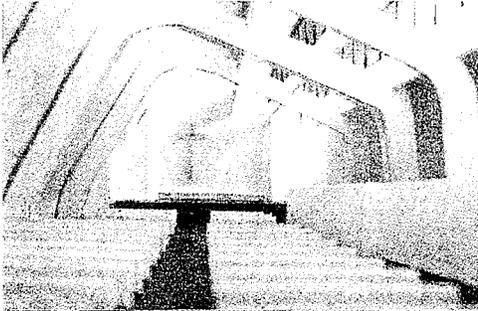


# Architecture Inspired by Light: A Research/Design Studio

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How can architectural students best learn the combined skills of artistic creativity and scientific discovery as linked and iterative phases of design? A pedagogical response to this question forms the premise of the Research/Design Studio.<sup>1</sup> In both scientific discovery and in artistic exploration, inspiration derives from a capacity for wonder, to speculate "what if?" In science, this curiosity leads to investigation of empirical phenomena and testing of "hunches." In art, it leads to the capacity for poetic imagination. Images and models serve a double utility as speculative instruments and as poetic metaphors, both providing triggers to design.

The studio explores the architecture of light as form-giving and form revealing. Assignments lead through a series of exercises, first based upon daylighting studies of exemplars of daylighting design. Models are constructed which students test under real and artificial sky conditions in order to observe and document the relationship of design, material finishes and the flux of natural light. In the second assignment, to design a lighting fixture "inspired by architecture," students explore the qualities of illuminance, transparency and reflectance. In the final assignment, a work of "architecture inspired by lighting," students incorporate lessons learned from the daylighting and lighting fixture studies.

While the studio is intended to advance a student in design, an equal intent is to involve students in research, in this case, research of natural lighting. Daylighting studies demonstrate the value of research in establishing daylighting principles based on empirical studies of masterwork buildings. Results have significance to architectural practitioners as well as to architectural educators, researchers and scholars seeking to understand the inseparable qualities of architecture and technology defined as "knowledge gained in the making."

## NOTES

<sup>1</sup> The work shown is from the studio "Architecture Inspired by Light" offered at the Department of Architecture, University of Oregon while the author served as Frederick Charles Baker Visiting Professor Winter Term 1995. Graduate teaching assistant: Hunter Williams.

<sup>2</sup> Watson, Donald "The Research Design Studio: a modest proposal to improve education and practice" Washington, DC: Association of Collegiate Schools of Architecture: Proceedings, 81st ACSA Annual Meeting, Charleston, SC 1993

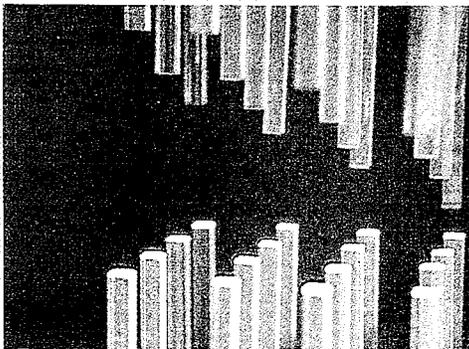
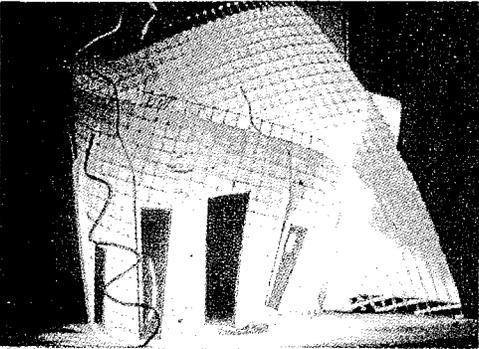
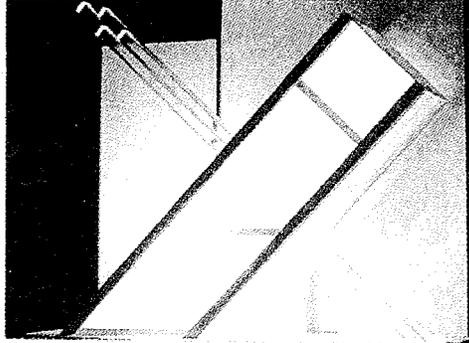
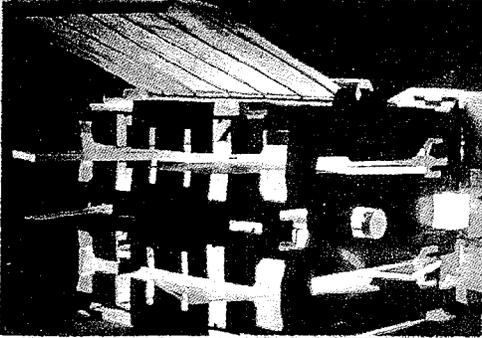
Riola Church Alvar Aalto  
model: Jay Adams and Jon Vandervelde

Crossroads School Moore Ruble Yudell  
model: Larry Wright and Zhunquin Wang

Koshino House Tadao Ando  
model: Chelsea Marshall and Misako Yamaguchi

Pantheon Hadrian (patron)  
model: Laurie Buelteman and Michelle Summers

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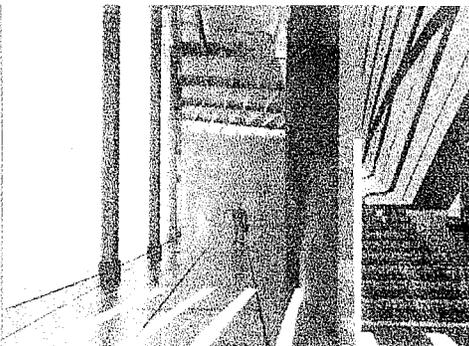
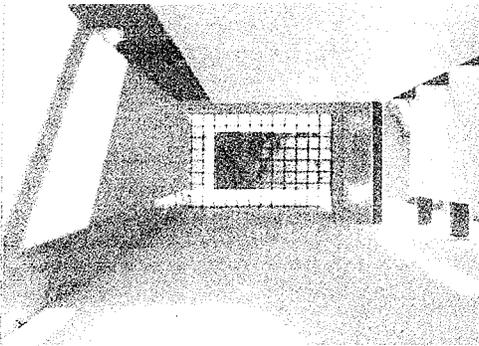
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- 5 Peter Sprouse
- 6 Dana Moore
- 7 Nick Lee
- 8 Hiro Ogino

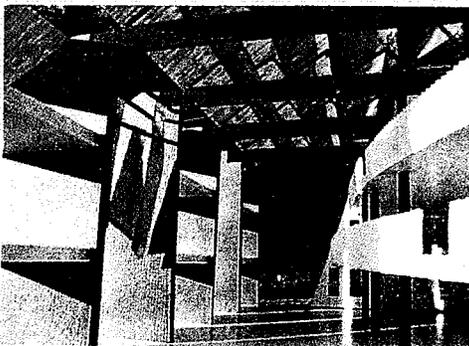
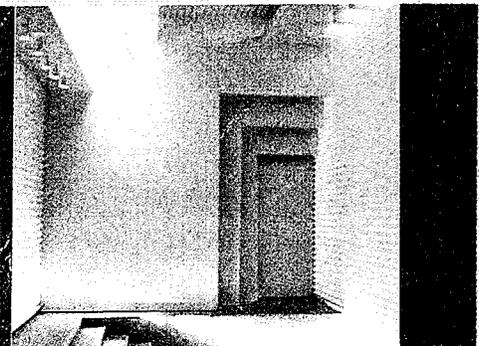
**Lighting inspired by architecture**

**Architecture inspired by light**

9 10



- 9 Scott Tarrant
- 10 Larry Wright
- 11 Chieh-Niu Tsai
- 12 Jon Vandervelde



11 12