AALTO’S DAYLIGHTING DEVICES

ARCH 407/507
Spring 2012
V Cartwright
Tuesday Thursday 2:00-3:50
206 Lawrence
CRN: 37689/37690
4 Credits
Advanced Technology Elective

Aalto’s architecture has had a profound and lasting impact on architects around the world for many reasons among them is the manner in which he incorporated light, daylight and electric light, as a major design element. It has been noted that Aalto’s architecture can be considered typologically, and that “[instead] of starting anew with each design project, Aalto based his design on the knowledge gained from past solutions to related problems.” It is appropriate therefore to look at Aalto’s lighting design strategies typologically, and to chronologically trace the evolution of the physical characteristics of the apertures.

This seminar will be a research-focused workshop in which we will investigate the physical characteristics of Aalto’s daylighting devices such as the conical skylight, the curving roof monitor, and the prismatic skylights. Working in teams, students will develop models of the most common of Aalto’s daylighting devices, and their variations. Then student will evaluate these for their appropriate location using physical testing and/or computer modeling.

The first few weeks will introduce the range of Aalto’s architecture, and through illustrated talks, and readings. Then students will develop the models, and test these models focusing on the conditions of climate and latitude that determine the efficacy of each device. Finally, the class will develop a research paper presenting their conclusions.

An understanding of daylight is a prerequisite for this course, as a base level of knowledge will be assumed.