Spring 2010                                7 weeks - module 2

ARCH 5539: Daylighting Design

Spring 2010 Topic:
The Ecology of Daylighting:
Light, Place, & the Building Envelope

Mon - Wed - Fri, 1:30-5:30

Instructor
Mary Guzowski, Associate Professor

The Focus
Ecological design goes beyond energy and resource efficient design – it involves the creation of environments that sustain all life. Aesthetics, beauty, health, well being, and quality of life are as important to ecological design as are reducing waste, energy consumption, and environmental impacts. We may be well aware of the pragmatic aspects of daylighting within the context of ecological design, but what are its poetic and experiential implications? This studio will explore approaches to daylighting and architectural design that weave together diverse layers of ecological, physiological, and experiential issues to enhance our understanding and relationship to place. We will explore how the formal, aesthetic, and experiential aspects of daylighting also support and foster a more sustainable approach to architectural design. The goal of the course is to familiarize students with daylighting from an ecological perspective in order to use both creatively in the design process, including daylighting principles, strategies, energy and environmental issues, psychology of light, structure, materials, and color. The explorations will include iterative studies using physical and computer study models, envelope details, sketching, photography, and qualitative and quantitative investigations.

Key Questions
The studio will explore three fundamental questions related to the ecology of daylighting design:
1. How is daylighting an ecological question with poetic and pragmatic implications?
2. What is the designer’s realm of influence related to the ecology of daylighting (design theory, principles, strategies, methods, and tools)?
3. What is the role of the building envelope in mediating ecological issues?

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