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Arch 4102.01 / Core II

Spring 2017

Form Follows Photon

Library of Light and Shadow

photon

noun Physics

a particle representing a quantum of light or other electromagnetic radiation. A photon carries energy proportional to the radiation frequency but has zero rest mass.

ORIGIN early 20th cent.: from Greek phos, phot- 'light,' on the pattern of electron.

"Such is our way of thinking - we find beauty not in the thing itself but in the patterns of shadows, the light and the darkness, that one thing against another creates." ¹

This studio explores the current changing nature and cultural significance of the space of the public library through the lens of light and shadow.

The studio will ask the question - what qualities make space? We will study the site(s) for literacy, learning, training, sharing and gathering, focussing on the importance of the human experience and character of these spaces.

LIGHT Construction

How do we structure space? Does a space of light necessarily need to be constructed of light materials? Does darkness always come from heavy materials? How do our experiences and expectations of the quality of space influence the way that we think about structure and materials? What are the possibilities that transcend conventions?

Locale / Local LIGHT

"The purpose of the Heliotrope regulations is to guarantee access to sunlight and to a direct relationship to the sky, which is considered in all spaces of human use..." ²

New York City, located 40.7127°N Latitude, is a dense city of buildings with different heights more often than not oriented off of a true North-South axis.

If we assume (for the purposes of this studio) that all public buildings (in this case a public library), have a *right to light* - a required minimum amount of light dictated by a presupposed and updated building code (similar to the *legal light and air* requirements for NY residential buildings), how would this change the city and its public buildings? What does it mean to design a building in the city that guarantees access to natural light? How might light and shadow, as an organizing principal, re-configure the contemporary library from the outside in and the inside out? And how does electric light play in to this equation?

Literacy, Learning + LIGHT

Throughout history, light has often been associated with knowledge. The Middle Ages were considered the *Dark Ages* in contrast to the *Age of the Enlightenment*.

The idea of a Library's central reading room as a place of study illuminated by natural light plays with this idea of light and knowledge. Controlling light and shadow has been important both for bringing natural and even light in to central reading rooms and individual reading carrels as well as mitigating the amount of light - keeping light out - to protect books from damage and deterioration and reducing direct sunlight and glare.

What are the benefits, problems and challenges with bringing more light or more shadow into our Libraries? What spaces are more conducive to light and what are more conducive to darkness (shadow)?



Henri Labrouste, *Bibliothèque Nationale*, 1875



Robert Irwin at Secession, 2013



Do Ho Suh, *Staircase*, 2011



Andy Warhol, *Shadows*, 1978-1979

Inside Outside

*"There is a crack in everything. That's how the light gets in."*³

Light and shadow, transparency, translucency and opacity are controlled by mediating the inside from the outside. How much light is allowed in and how much light is emitting out of buildings all depends on the envelope (walls, floors and ceilings) of the structure. Is the skin flat, shaped, single, double or triple layered? What are the sizes of the apertures and is the facade fixed or moving or some combination of both? How does a desire for more or less light impact the environmental performance of a building. What opportunities arise when trying to solve these problems?

And as libraries expand their program and outreach, and books become less of the central focus (but still important), what is the public face of our Public Libraries?

Organizing Principles

*"As soon as new information enters a networked database, the structure of the database can reorganize itself, just like old songs change over time with changing audiences and changing social, political or cultural circumstances. Flexibility and instability have become technical qualities instead of problems to be controlled. Digital archives are unstable, plastic, living entities, as stories and rituals were in oral cultures."*⁴

As our digital databases evolve and are able to adapt to constantly changing and fluid organizational structures, traditional archiving of information and books is becoming more and more outdated. The Dewey Decimal System for classifying, storing and retrieving books has been replaced with book storage systems based on size, not subject. Storage and retrieval systems emphasize the efficiency of space when the human access to the books, the idea of browsing the aisles, is not important.

Similarly, perhaps, the programming and classification of the public library and place for reading and studying is also constantly evolving. Like when Labrouste was designing the Bibliotheque Sainte Genevieve as a new paradigm for the public library in Paris that was directed towards students by offering extended hours and a re-configured interior, libraries today are changing how they address the needs of their communities. Particularly in NYC, libraries are becoming more and more hybridized. The program of our public libraries go far beyond the traditional circulation of books and study. NYC public libraries now offer a breadth of various programs including adult literacy, after-school programs for teens and children, technology training and often include maker spaces and multi-purpose rooms to serve as community facilities to their local neighborhoods.

This more diverse collection of program requires, perhaps, a greater diversity of spaces. And with the use and program of our libraries now constantly in flux, how does that change the way we design and organize the space of the library? What if the spaces of the library were organized less on program specificity and instead offered a variety of room types based on size, different qualities of light and shadow, greater or lesser amounts of acoustic privacy, etc?

Representation

Students will be strongly encouraged to explore different and varied methods of representation to include photography, video, collage, hand drawing and lots of model making!

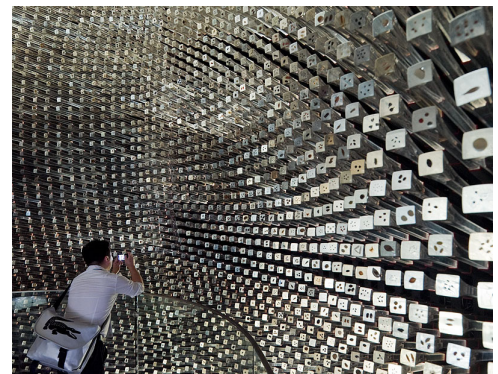
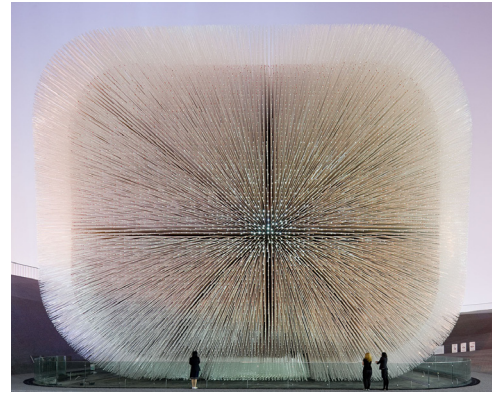
References:

¹ Tanizaki, Jun'ichiro, *In Praise of Shadows* (Sedgewick, ME: Leete's Island Books, 1977), 30.

² Michael Sorkin, *Local Code: The Constitution of a City at 42' N Latitude* (New York: Princeton Architectural Press, 1993), 27.

³ Leonard Cohen, Lyrics from "*Anthem*," 1992.

⁴ Brouwer, Joke and Mulder, Arjen, ed., *Information is Alive* (Rotterdam: Institute for Unstable Media: NAI Publishers, 2003), 5.



Thomas Heatherwick, *UK Pavilion*, 2010



Toyo Ito, *Tama Art University Library*, 2004



Louis Kahn, *Philips Exeter Academy Library*, 1971