Understanding the City through Representation: Graphic Strategies for Research: Case Studies of Elevated Pedestrian Networks: Minneapolis, St. Paul, London and Hong Kong.

Instructor: Jennifer Yoos
Guest Speaker: Andrew Blauvelt, Walker Art Center (Schedule TBD)

Seminar: The seminar will emphasize methods of graphic documentation used in research. Examples of skyway/subway cities will be studied to understand and represent the forces driving their development. Students will explore the architectural implications of these systems through a series of focused graphic studies that will provide a departure point for a critical analysis of this new urban form. Three lectures will be delivered on the historic evolution and current growth of these systems. The seminar will be organized around a series of graphic exercises, readings and discussion.

The seminar will precede a book and a traveling exhibit being developed with the Walker Art Center. The exhibition will relate historic explorations of the architectural avant-garde to emerging urban conditions of contemporary North American cities. The book will document real world proposals by governments, developers and planners; recording the growth and characteristics of critical systems as they are being realized. Ideally, work from the seminar will be featured in the exhibition and publication.

Background: With the opening of the High Line in New York, and the completion of other notable works such as Steven Holl’s Linked Hybrid project in Beijing, and recent proposals by Foreign Office and Future Systems, MVRDV, Zaha Hadid and OMA, there is clearly a renewed interest in urban spaces that employ three-dimensional networks of pedestrian systems. At a larger urban-scale, elevated pedestrian networks are continuing to be built in major cities throughout North America and Asia, where they address urban problems related to street congestion and climatic conditions or are used as a means to rejuvenate weakening urban centers.

Proposals for multilevel cities began to emerge in the late nineteenth century in cities like London, Moscow, Paris and New York as a series of utopian proposals for the modern metropolis, creating new forms of public circulation space above the street. The proposition of multilevel cities
with streets above streets originated with the architectural avant-garde and can be seen extensively in the work of architects like Le Corbusier, Sant’Elia, Mart Stam and El Lissitzky, Neutra, Hilberseimer, Yona Friedman, Team 10, Cedric Price and the Metabolists. These ideas directly influenced the beginnings of skywalk systems in the 1950’s and ’60s, promoted internationally via CIAM (MARS group) initially and then by Team 10.

The speculative proposals for these public multilevel systems were rarely conceived in bureaucratic, legal, or economic terms. Instead, these systems are now being realized in very different forms driven by financial incentives and political controls that vary city by city. Once established with a certain critical mass, skyway systems reach a point of momentum that creates a network parallel to the street. There are currently seventeen North American cities with major grade-separated pedestrian networks including the more extensively developed systems of Minneapolis, St. Paul, Calgary, Atlanta, Dallas, Des Moines and Chicago. There are also rapidly growing large-scale systems in Asian cities including Hong Kong and Mumbai.

In comparison to traditionally planned urban developments, the retroactive implementation of skyway networks is radical. These interior connections are beneficial for developers and increase the use of downtown areas by making access more convenient and circulation more fluid. The systems are usually built incrementally under the jurisdiction of municipal bureaucracies and driven by development interests. Some systems are public, most are private, but what began in the 1960s as a few blocks connected by bridges are now completely interiorized pedestrian networks extending up to ten miles in some cases. The complex incentives offered to developers often redefine property rights and blur the distinction between public and private space. Driven by short-term commercial interests, their dynamics are often “unplanned” and self-organizing. In unanticipated ways, these rapidly developing systems radically impact how people use and move through cities, how urban space is developed and controlled, and how buildings are adapted to social and economic changes.

As proposals for elevated pedestrian systems proliferate in individual architectural proposals and in urban-scaled networks, a survey and analysis of this emergent form becomes increasingly compelling in anticipating their full impact on twenty-first century cities. However, contributing to the difficulty in their analysis and planning is the lack of graphic methods that effectively document them as systems. Their ad hoc nature, interiorized and fragmentary conditions and three-dimensional integration into the city creates many challenges in this representation.

Information relevant to an analysis of skyway/subway systems is not readily available. Our
purpose will be to document the physical characteristics of such systems, to study the extent of their impact on urban form, and to better understand their historical and political basis. The following issues are critical to this exploration:

1. Skyway/subway systems: synthesizing the existing city elements into a new urban condition
2. Skyway/subway systems: the architecture of the continuous urban interior
3. Skyway/subway systems: displacing the street and privatizing urban space—understanding the role of program.
4. Skyway/subway systems: the self-regulating characteristics of their growth
5. Networks—mapping inside/outside

Graphic Topics and Methods Course Work:
Student readings will focus on a historical understanding of mapping and graphic methods and use.
Students will analyze three different systems three-dimensionally, understanding growth, use and their integration into the city. An experiential analysis of each city will also be emphasized. Work will be divided between representation / research and readings/discussion on the implications of various drawing methods. Students will do graphic analysis and consolidate research on the cities of Minneapolis and St. Paul, Hong Kong and London. Basic research and information will be provided to the students. The graphic analysis and representation work will be developed in five sections:

- The City as a Network
- Mapping: Isolating Information
- The Diagram: Quantitative Information
- Representing Time: Representing Social Use (movement) and growth over time.
- The City in Section
Representing The Interiorized City: The Use of Digital and Prototyping Tools

Readings:

Introduction:


The Network:
Alexander, Christopher. “The City Is Not A Tree”


Mapping:


Diagrams--Time, Use and Growth:


The Interiorized City:
Garcia, Mark. The Diagrams of Architecture.

Emily Abruzzo, editor. Workbook : the official catalog of Workshopping: an American model for architectural practice ; the U.S. pavilion for La biennale di Venezia, Biennale Architettura 2010