PAST FUTURES: HORIZONTAL DENSITIES

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Thursdays, 3:30- 6:30 901 Wurster Hall
(Research seminar is paired with a research studio in the Spring)

The City of Tianjin, China, is about to embark on the redevelopment of a 200 ha (500 acre) district of the inner city, and we have been invited to contribute to this endeavor. Rather than design yet another version of a 20th century city, this research seminar+studio will explore a paradigm that recognizes that we live horizontally -- rethinking habits of considering buildings as containers.

Cities have almost always been interconnected places, an urban fabric. In viewing the long tradition of city building, late 20th century development can be seen as an aberration caused by immense concentrations of capital, availability of cheap energy, and technologies of mass production. As a result, as cities have grown more dense, design and development moved away from building cities as fabrics toward building discrete objects, away from the continuous and shared experiences of cities to a fragmented and privatized urbanism. In Beijing, small retail shops once extended along the length of streets that served as seams between residential neighborhoods. Today, the shops are swept into malls, and the streets widened for cars. In Shanghai, the collective courtyards and lanes of the horizontal city are replaced by iconic towers and elevated highways. The sense of being “inside” -- in the room, in the courtyard, in the street, in the neighborhood --is lost, replaced by disembodied interior space and interstitial exterior dross.

So, we are considering a simple question, what are the forms of a 21st century city? To promote connective qualities of urban fabrics, the research seminar+studio explores the design of the dense, horizontally continuous building and it potentials to sustain us both culturally and environmentally. While vertical containers have provided easy solutions to accommodate increasing density, we now work in a time of changing assumptions about wealth, use of resources, identities of place, and the practices of everyday living.
There are several contingent design propositions that will be used to explore horizontal density:

*One:* We propose that larger scale developments continue to replace small lots, not because of the return on capital but because of their potentials to build horizontal continuities. We will explore a model of property ownership with public investment in longer time frames and private investment in smaller territories. This model will be directed toward achieving diverse environmental stewardship and territorial claims. In building more, we should expect to get more, greater diversities in public and private spaces as well as collective and individual territories.

*Two:* We propose to intensify the local, looking for opportunities of locale in microclimate, landscape, materials, and history at multiple environmental levels from the unit to the neighborhood to the district to the city. As first principle, we will work with passive systems, wary of technologies that maintain consumptive habits.

*Three:* We propose to differentiate the lives of building systems as a more robust way of building that affords a vitality of agency, diversity of territories, and efficiency of resources reviewing the advantages of site and off-site production. Some of the assemblies will be built to endure; others built for ease of change and disassembly. Within each time frame -- 150 years, 50 years, 25 or 5 years as well as season to season -- we will explore form and fabrication in terms of life cycle appropriateness.

*Along the way*
We will also engage in a breadth of questioning -- how do urban fabrics engage with information, how do we make our buildings more intelligent? How are community services (education, childcare, healthcare) provided in the city? How do transportation alternatives affect architecture? How is food and food production engaged in the neighborhood? Where do we work? These are questions of the everyday in the life of an urban fabric. While we will not be able to rigorously address each, the breadth will enlighten our research and individual explorations.
Wudadao

The research and project site is Wudadao a neighborhood within the city of Tianjin, east and south of Beijing. The city is designated an economic development zone (the third such designation after Shenzhen and Pudong) providing the nation’s economic and political power to eradicate district in a development plan. [See sidebar: the dissolution of the walled Chinese city of Tianjin.] Wudadao, or “Five Main Avenues,” is in the Heping District of Tianjin, and its future is now in discussion. Wudadao has a distinct character derived from its long streets and arrays of low-rise, “European style” buildings. The pattern of settlement is derived from Wudadao’s history as part of the British Concession when Tianjin was a treaty port, making Wudadao a recognizable neighborhood within the city. The area requires revitalization. On one side of the development debate are those who support preservation or conservation, recognizing the unique history or character of the district as well as the potential profitability that is associated with tourism of historic areas. In opposition are those who support a *tabula rasa*, eliminating the embarrassment of foreign occupation and accessing the profits associated with higher density development.

The design emphasis will neither be preservation nor Disney-esque theming. Instead, the seminar+studio explores strategies for the design and assembly of previously ignored continuities. Wudadao is an ideal site to explore the propositions: the land is owned by the government, eliminating issues of small lot ownership; a majority of the land can be cleared since only 20% of the buildings are identified as having historic significance; and the city has mandated maintaining the horizontality of the neighborhood.

Within the broad topic of horizontal continuity, the seminar will focus on research and design in four sub-areas -- see sidebar -- directed toward developing design parameters and projects for Wudadao during the studio portion of the year. In the research’s final phase, the projects and their parameters will serve as one comparison for a critique of the interstitial waste that is the by-product of 20th century development practices.

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Tianjin Chinese Walled City as seen in Google Earth in 2004. The Old City has been razed.

**Defining horizontal continuities**

*Geographic continuity:* forms that inflect the larger, regional landscape -- in Tianjin, surface waters and salt flats are starting clues.

*Topologic continuity:* forms that are not freestanding but insert themselves as continuations - extensions - intensifications to spatial invariants -- in Wudadao, the directional and fixed geometries of both the grid and sunlight.

*Territorial continuity:* forms that provide access, connecting spaces as public, collective and private -- in Wudadao, a diversity of ways of claiming space that comes both from the publicness of European streets and the collective patterns of Chinese dwelling.

*Configurative continuity:* “large” [coherent] forms that assemble and are experienced dominantly in the horizontal rather than the vertical -- in Wudadao, field continuities will be explored, rather than other configurative paradigms such as types and megaforms, with an emphasis on the zone between ground to spaces three through twelve stories high.
We will be working in collaboration with the Tianjin Urban Planning and Design Institute: Mr. SHI Wujun- Dean, Ms. ZHU Xuemei, Vice Chief Planner and Ms. JIANG Bei- Urban Designer and graduate of our Urban Design program. Currently we are co-sponsored by the Department of Architecture’s Graduate Program and TUPDI.

**Research seminar overview**

The seminar is organized in four main tasks, some will run all semester and others will be in short segments. The research activities include design exercises, comparative case studies, data collection and graphic analysis and general domain reading. Activities will be both group and individual, to be refined as we get to know each other. As a group we will determine a time to travel to Tianjin; hopefully in October, alternatively in December after classes have concluded but when it’s cold. The trip is optional and recommended. Additional trips may be possible as time, products and money allows.

4- Fall 2010 - Arch 203 Research Seminar - Chow
Depicting Tianjin -
We will develop a cognitive map of Tianjin, observing, uncovering and describing the unique attributes of
the city, Wudadao and their relations. We will use the four sub-areas of urban continuity as underlays.
[Bibliography: Busquets, Corner, Gandelsonas, Koolhaas, Lynch]

Capacities of the Grid: Comparisons with Wudadao
Wudadao is characterized by the five parallel streets and five cross streets, a grid system. We will explore
urban projects which use grids as their primary topological device to explore their dimensional capacities,
directionality, intersections, and hierarchic potentials in relation to the other continuities like water, sun
and access. By comparing these with the grid of Wudadao, we will speculate on the potential of Wudadao
for new urban assemblies.
[Bibliography: S. Anderson, Chow, Habraken, Hertzberger, Moudon, Sherman]

Differentiated Lives: DIS-Assembling & RE-Assembling
Using case studies, projects and urban fabrics will be dis-assembled to uncover their life-cycle
expectancies and re-assembled to project alternatives. Again, each case study will be evaluated in terms
how component assemblies and their permanence affect or are affected by the four urban continuities.
[Bibliography: Anderson, Antonikakis, Kieran and Timberlake]

In the Field
The goal of the research is to define the architectural and urban continuities of Wudadao -- to do this, we
will need to describe the parameters -- exploring verbal, graphic and other strategies that hold generative
characteristics and critiquing tools that pre-figure the architecture as objects. This will be an on-going
project that will be explored at differing densities and heights, revised through the site visit and then
tested and refined during the research studio.
[Bibliography: S. Allen, Graham and Marvin, Ellin, Frampton, Kepes, Maki, Rowe and Koetter, Sitte]

Research Studio Overview
The studio will focus on the development of parameters of continuities, iterative design testing and final
architectural projects. (See page 2- ZhuJiaJiao) Designs iterations include projections by agency, by life-
cycle, by systemic continuities that will be brought together as a final set of individual designs that are
integrated by the parameters and that illustrate the potentials of horizontal density. The research of the
entire two semesters will be graphically developed.

The research, design parameters and projects will be put assembled as an exhibit for the final review and
in Tianjin. The work will also be reformatted as a publication both in English and in Chinese.

More next week, or please email if you have questions before then (rychow@berkeley.edu) ......

5- Fall 2010 - Arch 203 Research Seminar - Chow