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New Beijing: Learning From New York

Bowen Zhang

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THESIS CONTENTION

What kind of architecture does a Communist political system with a free market economy system produce?

How does this architecture reflect the lifestyle and social qualities of a culture based in thousands of years of history that has rapidly modernized in the past century?

The population of China is stuck between a culture of antiquity and modernity; stuck between the values of communal, aggregate forms of living and the Western, independent, socially secluded way of life. The Western modern housing typology manifests itself in the high rise apartment building, which throughout the years has taken an increasing foothold in China and has all but annihilated the vernacular quadrangles and communities.

Quadrangles and hutongs (vernacular alleys) compose the lively, intimate, diverse Old Beijing. They com-
bine the idea of the human scale with critical mass, which allows for both individual freedom and social coherence. However, through rapid modernization and cultural gentrification, the apartment typology have become the defining architectural icon of China’s industrialization. Faced with seemingly contradicting values of preserving tradition and implementing modernism, the architecture must balance the essences of the vernacular architecture with modern standards of living and the realities of real estate and development.

Beijing, as many other cities in China, is trying to become a cosmopolitan city comparable to New York City. Parallels exist between the development of New York City of the Robert Moses Era and today's Beijing. Reflecting the fate of the old tenement buildings, the destruction of Old Beijing’s quadrangles has come swift and at a high price to China’s culture and heritage. Whereas NYC was forced to develop in the 3rd dimension due its 2D constraints, Beijing’s city center is constrained by its historical urban fabric. Thus, the current method of implementing with new development has been the complete demolition of the old city.

There are undeniable problems with the quadrangles, they often lack modern utilities, infrastructure, and provide for very dense living quarters. They take up large amounts of some of the most valuable real estate in the city, but offer minimal material returns. However, what is lost in the efficient and economy of the high rise typology are the social qualities necessary for a vibrant urban environment.

So the question again is, how do we combine the qualities of antiquity and modernity tailored to a communist government operating on a capitalist economy? This thesis aims to address the housing problem generated by the previously mentioned contradicting stimuli to create a new housing typology that is appropriate for a modern Beijing.
Delirious New York
Rem Koolhaas
(1978)

Learning From Las Vegas
Robert Venturi, Denise Scott Brown, Steven Izenour
(1972)
Learning from Las Vegas and Delirious New York can both be seen as critiques against the high-modernist architecture and planning that had been occurring at the time of the writings and are also serve great importance to the same Modernist tabula rasa phenomenon that is occurring in Beijing.

In the face of an international style pushed forward by the Modernists, the authors of Learning From Las Vegas argued for pluralism and multi-culturalism. In a time where symbolism in ornamentation was shunned as a method of decoration, the authors studied the relevancy and importance of symbolism in architecture. Venturi, Scott Brown, and Izenou’s classification of buildings on the Las Vegas Strip as either “Ducks” or “Decorated Sheds” championed architecture based on style and image, on folk/ vernacular construction. They argues that modernist architecture had abandoned the tradition of iconology and was a style that became irrelevant and distorted in its American context.

Delirious New York can also be interpreted as an argument against the Corbusian, Radiant City planning. Though the images of tall, glass skyscrapers often associate New York City with modernist architecture, on an urban scale, it is the opposite of a modernist city. Koolhaas points out the congestion of New York City and celebrates the inter-programmatic exchanges occurring in a metropolis. The congestion of the city causes a clash of diverse activities and challenges the modernist conception of a metropolitan efficiency. Instead of seeing each skyscraper as a tower in the park, he saw each tower as a collage of juxtaposed experiences that created lively, interesting urban environments.

Beijing’s culture and urban fabric is rapidly changing and deteriorating. As a country with less than a century of modernized history, irreversible damage has already occurred in the form of generic high-rise and block apartments. The new developments neither promote healthy relations between urban programs, or contribute to the cultural preservation of the architecture that once stood in its place.

By taking lessons from both texts, I hope to extract the proper way of creating active and sustainable communities that also contribute to the cultural preservation of Chinese architecture and planning.
Koolhaas argues that the combination of juxtaposing programs into one single envelop creates unexpected but meaningful inter-programmatic dialogues within a building. We can see through the section of his 38-storey Downtown Athletic Club how Koolhaas admired programmatic combinations that allowed for one to “Eat oysters with boxing gloves, naked.”

By taking individual programmatic blocks and stacking them within a high-rise structure, Koolhaas creates an internal, vertical city. Only the bigness of the structure can put the ideas of complexity to its fullest extent. The enclosed urbanism of the tower allows it to essentially disregard its context; the bigness of a building is not able to establish relationships with its context, at most, it coexists with its context.

Koolhaas’ theory on bigness and its relationship to the urban context manifests itself best in his iconic Beijing Project, the CCTV Tower. Conceived as a stacking of program, the tower stands absolute in the center of its cleared plaza and makes no attempt to connect with its surroundings. The inhabitants of the building lose their connection with the outside world and the outside world simply seems the tower as an urban sculpture.

The technologies that allow for Koolhaas to create his BIG structures include utilities such as electricity, air conditioning, and elevators. These tools of modernity allows the architect to build taller, larger, and faster, but in a city that is inherently horizontal, a lone standing tower is not the solution to replacing Beijing’s modified courtyard neighborhoods.
Ornament as Sign

Decorated Shed

Beijing’s Decorated Shed Street

Duck

Beijing’s Duck
Through their analysis of the Las Vegas Strip, Venturi, Scott Brown, and Izenour were able to extract two typologies of buildings and their relationship with signage as ornamentation. Since the architecture of the strip was not meant to be observed as a pedestrian through walking, but rather through the use of automobiles, the architecture and its ornamentation had to adapt in order to present themselves to people speeding by. Buildings were no longer able to dictate program according to traditional ornamentation, instead, it had to create one of two relationships with signage.

The first relationship was the decorated shed. This type of architecture was generic and unspecified in program. What determined the program of the architecture was large billboards and signage. Without the use of words and images, a passerby would be oblivious to the function of the building. Such instances of using signage as a dictator of space can already be seen in the generic shopping districts of Beijing, where cookie cutter high-rise commercial and retail buildings have replaced the original architecture of a famed historical district; the only way one realizes one is at a place of importance is through signage.

The second relationship is that of the Duck. In this typology, the architecture is a sign. For example, a small store that sells ducks eggs and duck meat would manifest itself in a duck shaped building. This method of architecture as signage allows the passerby to quickly associate the forms or vernacular constructions with a related program; in other words, it can easily transmit understandable iconographic messages to the masses. This kind of architecture has also been implemented in Beijing, where a coined shaped building in the corporate offices of a large financial firm. Often times, the architecture designed via this method can appear to be a cheap representation of culture.
Bigness + Decorated Shed
Using the ideas brought forth by Delirious New York and Learning from Las Vegas, I wanted to experiment with what architecture would be yielded by combining the bigness of Koolhaas's skyscraper with the 2 ways of synthesizing building and signage (decorated shed vs. duck).

I was curious what a high-rise apartment building would look like as a billboard. Advertisements are stuck onto the building wherever possible, and at moments, the signage becomes attached to facades pointing out prices for particular units. This generic high-rise is only identifiable through the multitude of signage. Without signage as ornament, this building could be filled with any program. Though the diagram showed is an exaggerated condition, the problem exists in Beijing where apartment towers are generic volumes only distinguishable by signage and do not contribute to the cultural identity of its location. However, the tower’s inherent bigness combined with the use of signage allows for successful visibility to the public; something that a shirt building cannot achieve at a large scale.
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The combination of Bigness and the duck yields an architecture that is often seen in China. In this instance, the fusion of the two ideas creates a gaudy pagoda structure. The direct implementation traditional/vernacular forms immediately allows the program of the building to be discernable; signage is not required to dictate program. The honestly or the ornamentation allows for the masses to quickly understand the architecture. Though the architecture produced can be stylistically considered tacky and unrefined, it is successful in communicating its intentions to the public.
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When applying the strengths and weaknesses of each of the three qualities, it is clear that the “base” of a building should adhere to the traits of the Duck and the tower should take on the traits of the decorated shed. In this way, the vernacular language of the building can connect with the subjects on the ground level. The tower on the other hand, can serve as a canvas or sign and stands as a monument in the urban context. The use of a vernacular language at the street level creates livelier, more active street life and contributes to a sustainable community while the towers can provide the density needed in the old city district. Instead of having to choose between the two extreme conditions of modified quadrangles and high rise apartments, the combination of the two is the key to a healthy urban environment.
GREENWICH VILLAGE = BEIJING OLD CITY
ANALOGOUS HISTORIES

**Vernacular Condition** - Building’s were single family occupancy or had clear apartment structures. Housing conditions were very good and density was not an issue.

**Modified Condition** - Single family experienced rapid horizontal densification and consequent slumification due to incoming immigrants or migrants. In New York City, Irish immigrants fleeing from famine and German immigrants fleeing the war contributed to rapid population growth. In China, population growth was due to migration from rural areas to urban areas and refugees from domestic natural disasters.

**Demolition** - After slumification, areas are marked as “urban blight” with minimal real estate value. Entire neighborhoods are torn down to build other projects. In NYC, much of the tenement housing was knocked down under Robert Moses’s ambitious master plans. In Beijing, entire hutong communities were bulldozed, forcing those living there to flee.

**Public Housing** - Much of the time, after the existing housing is destroyed, ambitious plans of public housing are put forth. These tower in the park developments only serve to densify the existing area, but at the sacrifice of the existing community and culture.
VERTICAL DENSITY
STREET LEVEL ACTIVITY
INFRASTRUCTURAL EFFICIENCY
PEDESTRIAN WALKABILITY

IDEAL URBANISM

MOSES URBANISM

JACOBS URBANISM

URBAN ENVIRONMENTS
Robert Moses + Jane Jacobs
URBAN ENVIRONMENTS
Robert Moses + Jane Jacobs + Gentrification

Ideal Urbanism

Moses Urbanism

Jacobs Urbanism
New renovations to existing buildings change the facade presence to the street. Local enterprises are overtaken by national chains that are able to afford higher rents. Park space is utilized by community and visiting tourists. Redevelopment of valuable real estate brings about luxury condos and apartments. High-end shops marketed towards tourists and not local residents. Residents of high-rise buildings are less likely to interact with street level events. Everyday pedestrians are tourists and visitors instead of locals. Average rent around modern day is $2500 - $3000 per month.
Street surveillance by everyday neighbors in low-rise residential buildings. Active street life by local pedestrians allows for lively community. Low height buildings allow for more interaction and surveillance of street life.

Average Rent around the 1960's is $110 - $150 per month. Small manufacturing buildings still maintain community presence.

Park space allows for break out space for community. Active bar scene allows for safestreet conditions at night and early morning.
Difference in housing typologies creates perception of widened social and economic classes.

Mixed building typologies create complicated social relations in community.

Vernacular quadrangles lack their clustering qualities that create vibrant communities.

Shrinking of the public realm and definition of borders between public and private.

Creation of spatial and physical barriers via new gated high rise residences.

New typologies show loss of sense of culture and identity.

High-rise typology creates separation of residential and street-level interaction.
Vernacular quadrangles create a separation of internal private space and external public space.

Alleyways act as public streets for communal activities instead of simple paths of circulation.

Proximity of commercial and residential program allows for walkable neighborhoods.

"Stoop culture" and "people watching" allows for self-surveillance of activity.

Privacy of Quadrangle allows for integration of various social and economic classes.

Differentiation between public streets and communal alleys.
HOUSING TYPOLOGIES
WHAT MAKES UP THE HOUSING STOCK IN BEIJING?
BEIJING URBAN FABRIC 1930

BEIJING URBAN FABRIC 2010

- Vernacular Communities
- Wei-Gai Communities
- Apartment Communities
VERNACULAR SIHEYUAN

The vernacular Siheyuan was a typology produced through thousands of years of urban development. They represent healthy communities that are lively, intimate, and diverse. The quadrangles have minimal openings towards the alleys, which show a sense of privacy towards the exterior, but internal to the housing units, there are a series of courtyards that allow the members of the family inhabiting the rooms surrounding the courtyards to interact. The alley ways act as public space in which people in the neighborhood can interact and be social; in this way, a strong communal bond exists between the community.

**Positives:**
- CENTRAL LOCATION IN CITY
- CLOSE NEIGHBOR RELATIONS
- LIFE IS WITHIN WALKING DISTANCE
- CLEAR ORDER OF SPACES
- LIVELY AND HEALTHY COMMUNITIES
- GOOD STANDARD OF LIVING
- BATHROOM AVAILABLE PER UNIT

**Negatives:**
-INEFFICIENT USE OF SPACE
- REPRESENTATION OF A FEUDAL SOCIETY
- LACK OF MODERN UTILITIES
- LOW DENSITY HOUSING
TYPOLOGY

URBAN TEXTURE

DETAIL

PROGRAMMATIC DISTRIBUTION & CIRCULATION

MORE PRIVATE

LESS PRIVATE

PUBLIC

GRADUATED PRIVACY

ENTRANCE VESTIBULE
SEROUS SERVING SPACES
ASSESSORY SPACES
2ND GEN. LIVING SPACES
COVERED WALKWAYS
OPEN COURTYARDS
PATRIACH LIVING SPACE
FEMALE SERVANT LIVING SPACE

PUBLIC CIRCULATION

PRIMARY PRIVATE CIRCULATION
SECONDARY PRIVATE CIRCULATION
MODIFIED SIHEYUAN

Due to the migration of farmers and workers from the rural into urban areas, the quadrangles experienced a period of severe horizontal densification in which the single housing units became accommodations of multiple families. To maximize the small spaces each family had, many people built extension building that intruded in the original courtyard spaces. These shacks caused a slumification effect which severely lowered the quality of living in these communities. Due to decades of poor maintenance, these quadrangles also began to have structural and infrastructural problems.

**Positives:**
- Central location in city
- Close neighbor relations
- Life is within walking distance
- Lively and healthy communities

**Negatives:**
- Overly-dense living quarters
- Poor living conditions
- Structural problems
- Shared water source
- Lack of private bathrooms
- Outdated heating systems
- Traffic problems
TYPOLOGY URBAN TEXTURE

DETAIL

PROGRAMMATIC DISTRIBUTION & CIRCULATION

- MORE PRIVATE
- LESS PRIVATE
- PUBLIC

- Entrance Vestibule
- Modified Living Spaces
- Covered Walkways
- Open Courtyards

- Primary Public Circulation
- Secondary Private Circulation
COMMUNIST ERA HOUSING BLOCK

Communist era housing blocks reflected the first influences of western modernist housing blocks. This architecture was first introduced into Beijing via USSR planners. This typology was possible though the stabilization of the country and strengthening of industry in order to create materials such as glass, concrete, and metal in large quantities. Because these blocks were some of the earlier buildings to replace the quadrangles, they have been engrained into the urban fabric and often have small shops attached to their outer perimeters.

POSITIVES:
- More efficient housing method
- Integrated into urban fabric
- Modern utilities existent (shared)
- Easy construction
- Close to larger infrastructure

NEGATIVES:
- Limited internal social interaction
- Lack of connection to nature
- Moderate living standards
- Diluted sense of community
The high-rise apartment building has become a symbol of Asia’s industrialization. It’s ease of construction along with efficient use of space makes it one of the most profitable housing typologies in Beijing. Developers have opted to raze vernacular communities and replaced them with these skyscrapers that are not affordable to those who are displaced. Many of these are bare bone construction where only what is needed is constructed and nothing more; for example, the corridor spaces are often unfurnished and there is no lobby space.

**Positives:**
- Highly efficient housing method
- Parking spaces provided
- Modern utilities existent
- Easy construction
- Close to larger infrastructure
- Private garden and park as part of amenities package

**Negatives:**
- Limited internal social interaction
- Lack of connection to nature
- Moderate living standards
- Diluted sense of community
- Unaffordable to lower class
LUXURY CONDOMINIUM

With the increase of wealth in China, the ultra-luxury market has developed, allowing the few rich to own highly designed apartments. These apartments come with a high quality amenities package, but also comes at an incredibly high cost. It would be no surprise if the valuable upon which the vernacular housing is torn down and redeveloped for the luxury apartment market.

**POSITIVES:**
- HIGHLY DESIGNED
- HIGH QUALITY AMENITIES
- PRIVATE BALCONIES
- HIGH LIVING STANDARDS
- STATUS SYMBOL
- LARGE LIVING AREAS

**NEGATIVES:**
- LIMITED INTERNAL SOCIAL INTERACTION
- DILUTED SENSE OF COMMUNITY
- UNAFFORDABLE TO LOWER CLASS
- INEFFICIENT USE OF SPACE.
MICRO-APARTMENT

With increasing real estate values and a constant amount of land, the only way to keep price constant is by building smaller living units. These micro-apartment buildings have not yet taken a strong foothold within the housing market within Beijing, but it is a clear upcoming typology that will arrive to the city in future years. These micro-units are also interesting in their ability to be built in a modular manner.

**POSITIVES:**
- HIGHLY EFFICIENT HOUSING METHOD
- MODERN UTILITIES EXISTENT
- MODULAR CONSTRUCTION
- CLOSE TO LARGER INFRASTRUCTURE

**NEGATIVES:**
- LIMITED INTERNAL SOCIAL INTERACTION
- LACK OF CONNECTION TO NATURE
- MODERATE LIVING STANDARDS
- DILUTED SENSE OF COMMUNITY
- UNAFFORDABLE TO LOWER CLASS
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Images Cited


Img. 2 Learning from Las Vegas. Digital Image. Available from: https://lh6.googleusercontent.com/C4nglAbjVsBfhi9szaCLyQFUB1g9pjetEKZ-jgkWSMN9szspXeWThmRT_rVgbTFs2TWh78NaoDHbAFG9d8R5Z_hQy6TmaHzc_pa-yA


