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DWELLING AS A CULTURAL PHENOMENON

by

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ABSTRACT

Dwelling as a Cultural Phenomenon

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Two new courtyard housing models for single families are proposed on a site in the heart of Beijing to accommodate the increase of population density and the change of life style in the city in the recent decades while maintaining the cultural essence of the traditional local dwelling - Siheyuan. The design proposals are proceeded by an analysis of Siheyuan in terms of familial structure, spatial organization, and current conditions as well as a brief account of the evolution of housing types in Beijing from 1950’s to present.
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INTRODUCTION

Dwelling accommodates life. Therefore, the architecture of dwelling is able to materialise culture, from its construction to its occupation, which is vividly visible in vernacular houses that are designed and built by the inhabitants themselves as a direct translation of their living experience and their perception of the environment. For an architect, to design a dwelling is to define a life style and further to transcend the built forms into cultural expressions. Yet this task seems to be the mission impossible amidst the current cultural confusion, conflict, and chaos. This architectural thesis, however, intends to study the relationships between the re-emerging building type of single family house in Beijing and the contemporary Chinese culture through the design of a group of houses in the heart of the City in order to examine dwelling as a complex cultural phenomenon.
The Legacy

At one time, not too long ago before 1950, the entire city of Beijing was carpeted by a singular housing type - Siheyuan. In Chinese, si means four and four sides in this case, he embrace or enclose, and yuan courtyard.

Primarily a single family house, a Siheyuan was intended for an extended family since pre-modern Chinese families were practically all extended ones. The spatial order of a Siheyuan responded directly to the familial hierarchy: The head of the household, determined by seniority, and spouse occupied the principal room on the north side of the courtyard and their children, single or married, resided in the wing rooms on the east and west sides. Southern room assumed the lowest familial status. The rationale behind such arrangement was quite simple and practical: Southern room receives more sunlight than other rooms thus is the most comfortable. Yet, in Siheyuan, orientation took on a more than practical significance and became the most important expression of the familial structure. For house with more than one
courtyards, northern courtyards were considered more superior and designated to the elderly in the family due to the south-east location of front gate.

One courtyard constitutes one layer of space in a Siheyuan since, typically, courtyards are organised along a north - south axis. However, the notion of spatial layer is expressed in a singular Chinese word - Jin. In the everyday usage, Jin is a verb meaning enter or move forward; therefore, Jin as a noun is still about movement, movement through the layers of courtyards and rooms of a house. Jin is about linear spatial sequence, too. The size of the house can also be described in Jin; for instance, from a statement such as this Siheyuan has three Jin one will know immediately the house has three courtyards and all the rooms around them.

Yuan, courtyard, is potent not only on the level of cultural symbolism but also in terms of lifestyle. The outdoor living habit of Beijing people makes Yuan the most useful and used space in the entire house. Depended on the weather, Yuan may accommodate circulation, dining, children playing, entertaining guests, washing and drying clothes, and other domestic work. Yuan is in reality a spacious multi-functional room without roof. Because it is used and understood as a room, Yuan has an open and intimate relationship with the surrounding interior spaces, the other roofed rooms, specially through the existence of a transitional space - Lang. Lang is a roofed yet open area between the room and the courtyard. Spatially, it can be an extension of the room or the courtyard depending the view point. Lang keeps the room from rain or too much sun and allows the room to open up to the courtyard. When a Lang is deep, it can be a liveable space in its own right, when it is not the best weather to be in the courtyard.

Similar to Yuan, the indoor rooms do not have designated functions but all living
spaces. The architecture does not suggest occupation and then can be enjoyed as what it is. Such conception must have come from a desire for freedom of living and flexibility of use. It contrasts dramatically with the one to one room-function relationship one finds in the West.

On the urban scale, the introverted nature of enclosed Siheyuan allows all the houses to be connected into one piece of continuous city fabric, only to be interrupted by streets and Hutong, the name people in Beijing have for alleyways. Never open onto the Street, a Siheyuan is accessed always from a Hutong. Therefore, one may say if there were no Siheyuan and Hutong, there were no Beijing.
The Challenge

The past five decades have seen unprecedented social changes in China. One of several changes that have left the most profound impact on Chinese life and culture was the explosive growth of population, which was accompanied by a shift of mainstream familial structure from extended family domination to the orientation of nucleated family. The city of Beijing, as far as housing is concerned, was doomed. The only quick fix to absorb the increase of residents was to pack up the residential structures existing, the once single family houses, Siheyuan. Although new housing development have gradually taken place, the majority of the population explosion was trapped in Siheyuan and not got out since. Once a Siheyuan was shared by a number of unrelated families and over populated, problems descended one after another and worsened with age. Siheyuan became Dazayuan, big mixed courtyard.

The paramount problems includes:

The loss of privacy. The courtyard, used to be the open center of the house, is now the nominal buffer zone between different households. Initially, similar activities as before still unfolded in the courtyard; eventually, however, the residents became
increasingly reluctant to cope with the complication of the many activities of different families happening simultaneously: One family is having dinner while children from another are playing and a third family members may be making a piece of furniture. Slowly, they retreated inside.

The loss of courtyard. For the beginning, there was a shortage of rooms. Every possible space was used as living / sleeping room. Even kitchens disappeared. Toilets did go too for other reasons. Through out the years when the population kept skyrocketing while the square meters of living area remained about the same, people started to build ad hoc structures in the courtyard. First, it was common a small shed as kitchen or storage. Later, the program extended to living spaces and size and number of these additions grew and the courtyard was eaten up. A good portion of the courtyards in Dazayuan were shrunk to some narrow corridors.

Inadequate daylight. The over-building in the courtyard blocks the daylight to the interior spaces.

Besides, the total lack of infrastructure in the Si He Yuan was never resolved except electricity:
No designated cooking area: Meals are prepared often on a coal burning stove outdoor under the eaves;
Air pollution caused by the burning of coal;
No toilets inside the compound: Residents use public toilet rooms in the Hutong;
No bathing facility: Some of the work places provide the bathing facilities otherwise one has to go to a public bathhouse;
No hot water. A singular cold water line is serviced to the courtyard for the entire compound;
No central heating system. During winter time, the same coal burning stove for cooking functions as the heater.

Based on the conditions of Siheyuan in recent decades, the contemporary housing problem in the city of Beijing has thus been defined as a need for a much higher density residential building type composed of smaller familial units with the basic sanitary conditions.

The Solutions up-to-date

1. Danyuan Lou - Unit block - in 1950 - 70: Partly under the Soviet influence, Western apartment buildings appeared in Beijing first in the early 1950's. Except some isolated attempts to lay out the unit blocks in such a way that the open spaces between the buildings would remotely resemble, if only in appearance, the traditional courtyards, the majority of the unit blocks are uniform bar buildings arranged in a parallel manner, sometimes with decorative motives patched onto the elevations as the contextual measure. However, since 1960's, even the decoration had to go in the name of economy as well as ideological purification. The unembellished unit blocks satisfied the bottom-line requirements of urban living and which the owner - the city government - rented out for a nominal charge. Unit block is architecture as social welfare or perhaps socialist architecture as its best. Yet, it did not address the local life style or the local culture. In the absence of courtyard, the balcony of the apartment unit became the precious private outdoor space however small it might be. It was more than apparent that the five-to-six-story utilitarian unit block housing was destructive to the original city scale and fabric and at the expense of tearing down the old siheyuan houses but it was considered necessary to do so. Single family house as a building type vanished in China for three decades.
2. Siheyuan Danyuan Lou - Courtyard style unit block - in 1980's: A product of then the newly gained consciousness for historic preservation, the new housing type remodelled the old fashioned unit block notion to approximate the configuration of a tradition Siheyuan: Maintaining still a fairly high density, low rise (typically three stories) pitch-roofed buildings surround relatively small open spaces. On one hand, it was no doubt a far more sensitive solution to save the architectural heritage of the city; on the
other hand, however, the courtyard like outdoor space were no courtyard since it was a shared, public domain which invited no private living. By the same token, rooms could not and were not open to such area; furthermore, even if the residents in the first floor units might feel comfortable engaging the open space, people who lived on the upper levels could only be bystanders. Although the courtyard style unit block took a very different formal approach, its basic attitude toward architecture remained the same as the early unit block: both disassociated life style with architecture and overlooked the cultural value of dwelling.
3. Siheyuan Revival in 1990's: The development of consumerism in China in the recent years has seen the idea of architecture as social welfare become gradually obsolete. Now apartments and houses can be bought and sold in a way similar to the one in the West. Architecture becomes commodity. However, in terms of single family houses, the problem is that there is little supply to meet the demand of the newly affluent.

One response to the situation, which may sound unrealistic but has already become reality, is American style suburbs. While there is no doubt that the way of living in China is undergoing tremendous changes and becoming pluralistic, which means that certain Chinese people now lead a quite Westernised life, if the American Dream would suit the Chinese life style is a valid question. Meanwhile, more practical concerns are in abundance, ranging from transportation to affordability.

A reaction to the brutally Westernised suburbs is to revive the traditional Siheyuan inside the city, that is to built new ones that replicates the old as authentically as possible. A solution favoured by the city administration, it is a very passive way to preserve a culture. It demands an impossibly low density and high construction cost that only a handful superrich individuals and major corporations can entertain the notion of owning one as a collectable novelty. With no vacant lot in the inner city, the new Siheyuan construction calls for the demolition of existing structures like the unit blocks did; only this time, those, who have lived here for generation and may enjoy a recent improvement in their economic status, once leave and will never come back. Such development would thus not only drive the lower incomes out of the inner city but also reject the newly formed middle class.

Yet there is doubt as to how practical these luxurious new antiques are. The original
Siheyuan was meant for an entirely different way of living and it offers limited usable floor area in the modern sense. An idea that architects have come up with to ease this problem is to add a basement or semi-basement level; the latter asks the original ground level to be raised up a meter or so. While the building area may have doubled, questions about the lower floor regarding daylight, drainage, and so on are inescapable.

ISSUED REDEFINED

Issue I - Transforming tradition
The significance of the modified Siheyuan does not lie so much in the finished products so far but rather in the attitude - one that begins to treat tradition as a set of transformable concepts not only as a set of fixed rules. In fact, one wonders if not the only way to carry on a tradition is to keep it alive. It also suggests what can and should be preserved in a historic city does not limit to artefacts alone, be it the city fabric or individual houses, and must include ideas.

Issue II - Constructing cultural context
A misinterpretation, that tradition is meant to be only an attribute of the past, is led to by some of the design efforts in reproducing historic forms and decoration. The historicist approach to architecture ridicules itself when definition of tradition is further narrowed down to a few formal symbols. It is critical for design endeavours that build upon a heritage that tradition is understood in the continuous temporal frame and in the broader cultural context. A piece of new architecture in Beijing will not only find itself in the particular physical surroundings of the city but also to be juxtaposed with other aspects of Chinese culture, such as painting, music, drama, film, literature,
cuisine, and philosophy.

Issue III - Reinstating life style as a design dimension
One aspect of any civilisation which relates to dwelling most directly and exercises a profound influence on architectural design is the culture or the art of daily living. Although the basic living pattern of different cultures or people might appear to be similar when it is reduced to its bare bones, life in reality is incredibly rich and diverse. The reductionist attitude may produce the utilitarian unit blocks but can never embrace this richness and diversity. The preservationist, nevertheless, fails to see the very culture he is experiencing. Like everything else, life style evolves. The following changes in the ways of living are observed in Beijing:

Middle class:
Past six years saw in Beijing and other major Chinese cities the formation of a new social group which consists of mostly college-educated, well-paid, young urban professionals. Chinese yuppies are far more westernised than the older generation. Like their counterpart in the West, they are unashfully hedonistic and good consumers who have developed a fairly sophisticated taste in merchandise and, sometimes, in culture.

Familial structure:
Extended family is no longer as desirable or as stable as it used to be. The number of nucleated families is on the rise. The statistics shows that the average number of persons per household in Beijing was 5.52 in 1953 and decreased to 3.69 in 1982; families with three persons or less cut 28% out of all Beijing families and grew up to 58% in 1989. However, value of the extended family does not simply disappear and now is expressed in a different way: Although in separate units, many parents and
their married children prefer to live next to each other.

Cooking
Young people tend to spend less time in the kitchen to prepare their meals than their parents would. For the middle class, to frequent restaurants, at least fast food restaurants, becomes not unusual.

Home office
As a result of the economical reform of recent years in China, more and more people may employ themselves for the first time as entrepreneurs, freelancers, moonlighters, etc., and begin to feel the need of a work place at home.

Home entertainment
Beside watching television, singing karaoke constitutes a very popular pastime in China and in Asia in general.

On the other hand, certain elements of the old Beijing life linger on and survive, even if as only a nostalgia.

Outdoor living - Courtyard
Today, few in Beijing actually get to enjoy a decent outdoor living area. Yet, courtyard is very much alive in the collective memory of the Beijing people. Almost every single play produced by People's Art Theater, regarded as the best drama troupe in the country, is set in a Siheyuan, which clearly suggests how much the population miss courtyards.

Transportation - Bicycle
China now has private cars, As a matter of fact, the number of automobiles grows so
rapidly in most cities that traffic congestion has become a common sight and a serious urban problem and Beijing may have the worst case scenario. Bicycle thus still is a viable means of transportation for a different reason.

SITE

Site plan
The site for the proposed projects is located in the Nanchang Street neighborhood in Beijing, on the west side of Forbidden City in the center of the metropolitan area. In this neighborhood, the original characteristics of Beijing is still visible: Siheyuan, traditional courtyard houses and elm trees line up the fairly narrow Nanchang Street (10 meter wide) from both sides. Among the houses, there are well maintained mansions that are occupied by high rank government officials as well as disintegrated compounds that was meant for a single family but now occupied by numerous households. The original courtyards have turned into winding passages and largely disappeared due to the typical sporadic construction of small sheds by the inhabitants for the lack of living area.

The City of Beijing intends to preserve as much as possible the Siheyuan house type and to some extent the traditional neighborhood characters by regulating new buildings in this area to residential program and single story. The height limit is set at an unrealistic four meters to reinforce the single story rule, while the ridges of most sloped roofs would be around six meters or higher. Currently, the Nanchang Street is planned to be widened to ease traffic; however, there are still different opinions and debates within the city planning department regarding the issue and reverting the decision of widening is not entirely hopeless.

The specific site involved measures 40x30 meters and is on the west side of the Nanchang Street currently composed of old houses in very poor condition. A six-meter-wide alley, Dayanle Hutong, defines the north boundary of the site while a group of preserved structures is on the south side.

The exterior of Siheyuan is of a uniform grey, due to the use of grey bricks and tiles as primary building materials, which contrast dramatically the red stuccoed walls and
golden glazed tiles on the roofs of the nearby palaces.
PROPOSAL I

This design is initiated by an increase of density from the original three Siheyuan to ten single family houses.

Spatial analysis
To accommodate such density, an old Siheyuan is conceptually quartered to make four new houses. The concept also generated the composition of an L-shape interior embracing from two sides a rectangle courtyard.

Furthermore, the intermediate space - Lang is transformed and moulded into various forms to animate the inside - outside relationship or to blur the boundary between the two. Flexibility of use, such as engaging Lang as a convertible dining area, is the functional end of the measure.

Partial second floor as the result of the higher density.

Traditional tiled roof to blend into the neighborhood.
Modle
First floor plan
Axonometric
PROPOSAL II

The second scheme pushes the density to the existing sixteen.

Transforming the classical notion Jin as the essential experience of Siheyuan and developing a linear courtyard house. It may be argued that the wing rooms, which were for the grown up children in traditional Siheyuan, can be trimmed off now since the nucleated family render them unnecessary.

Transformation of Jin

Jin, a traditional apatial concept:
Movement through space and time, layering and sequencing;
Gradational development of privacy;
Familial hierarchy
The partial second floor in this proposal can be seen as the continuation of the Jin sequence.

More specific programs are defined and plays a critical role in the design:
Among fifteen households (the sixteenth building is a tea house), three-generation families are four (4-5 persons per family), two-generation families, a couple plus one child - standard Chinese familial composition, are seven (3 persons per family), and one-generation families, couple without children or single, are four as well (1-2 persons per family).

As mentioned before, even when the different generations prefer more privacy, they also wish to live as neighbors to maintain the extended family relationship and to take care each other. This design plans spaces and furniture in such a way and devices a number of movable partitions inside the rooms and the courtyards to give the option of sharing at the will of the residents. The spatial flexibility takes on a familial dimension.
Spatial flexibility for extended families
First floor plan
Second floor plan
Axonometric
Conceptual model
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