In-Between Space
Museum of Chinese Tea

Yanyan Li

A design thesis submitted to the faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Master of Architecture

Committee Chair: Paul F Emmons, Ph.D.
Committee Member: Jaan Holt
Committee Member: Susan C Piedmont-Palladino
Committee Member: Caren Yglesias, Ph.D.

September 9th, 2006
Alexandria, Virginia
In-Between Space
Museum of Chinese Tea
Yanyan Li

Abstract:
Project: museum of Chinese tea.
Site: in Chinatown of Washington DC.
Thesis:
What is in-between space?
How is in-between space designed in the museum of tea?
How to create the feature for different space?
CONTENT

Research about In-between Space

The Design Process
the History of Chinese Tea

The Architecture

The Rooms
The Last Period - Secular
The Fourth Period - Tasteful
The Third Period - Fashionable
The Second Period - Gorgeous
The First Period - Mysterious

The Site
The Plans

Sections and Elevations
Details
Model pictures

Bibliography
"I feel I exist on the boundaries, somewhere between science and art, art and architecture, public and private, east and west. I am always trying to find a balance between these opposite forces, finding the place where opposites meet, stopping time, existing not on either side but on the line that divides ... and that line takes on a dimensionality, it takes on a sense of place and shape."

Maya Lin 1

When I began my thesis, I wanted to do something about memory, because I missed my family and hometown so much. If a building is a way to express the idea of an architect, like the essay for a writer, and music for a composer, I hope my building will express my longing.

When I did research about my hometown-Chengdu, I realized that the tea is important in our life. Teahouses are everywhere in Chengdu. People do many things in tea houses such as drinking, talking, watching, eating and reading. Tea is a part of life. For example, tea is a sign of respect. In China, the younger generation always shows its respect to the older generation by offering a cup of tea. Tea also expresses some of the Chinese philosophy, such as tea means a simple but classical life style. So I decided to design a tea museum.

1.http://www.bartlett.ucl.ac.uk/architecture/programmes/units/unit05.htm
I found out there is a kind of interesting space in almost all tea houses, which is neither an open space nor a closed space. It is a space in-between open and close. It is always a favorite place for the tea-drinkers. Not only in the tea houses, but this kind of space is also desired in the traditional residential houses, in the street and in the city. Since this in-between space is meaningful for enjoying the tea, I would like to translate the concept of the in-between in a museum of tea. A puzzling question is how to convey the in-between concept in my design?

In-between space (without wall but column and roof) around the courtyard

In-between space (without wall but column and roof) along the city street
The Design Process

The History of Chinese Tea

There are five significant tea-making periods in more than 2000 years of Chinese tea history. Tea dates back to the west Zhou Dynasty in Ancient China. Mythology said the first person who drank tea was Shen Nong who is the divine of cultivator. At that time, tea leaves were eaten as vegetables and medicines. By the Han Dynasty, people boiled tea leaves in the water with onion, ginger and orange.

Until the Tang Dynasty (618-907), tea leaves were processed into tea-cakes. Processing involved steaming tea leaves on a bamboo tray, grinding them into a fine pulp called “tea mud”, placing this mud into molds where it was pressed to harden. Later it was transferred out of the mold, dried in the sun, and baked to prevent rotting. When drinking, at first, the dried tea-cake was ground in a stone mortar, and the powder was boiled with nothing but a little salt in earthenware kettles and consumed as a hot beverage. This form of tea that became the national drink of the elite in China’s Tang dynasty. Moreover, since this kind of tea could be transported easily, a taste for it spread far beyond China, into Tibet, along the Silk Road to Turkey and India, and into Russia.

During the Song Dynasty, loose-leaf tea was invented. Tea leaves were picked and quickly steamed to preserve their color and fresh flavor. When people drank tea, they ground tea into fine powder that was whisked in wide bowls. In this time “tea competitions” were popular in all social stratas, where people could compare the quality of different teas.
Before the Ming Dynasty, steaming tea leaves was the primary process to make tea. In the Ming Dynasty, roasting tea leaves was more popular than before as the techniques advanced. Because the Ming Court issued a decree that only loose-leaf tea would be accepted as a tribute, gradually the roasting process replaced the steaming process in making tea. At the same time an easier way of tea brewing, by adding hot water in the tea cups, became common. The Ming aesthetes continued to look for the "true flavor" of tea as before, by this new method. Writers praised the tea from particular sites, and recommended using the water from specific wells to make them. Every aspect of tea preparation became an object of connoisseurship. In about 1500, the first teapots as we know them came into being, made at first of unglazed brown or red clay, forming the tiny, unglazed l-hsing "purple sand" teapots.

From the Qing Dynasty to now, various kinds of tea plants are grown in different regions of China and many advances were made in tea production. There are three main types of tea produced: unfermented, semi-fermented and full-fermented. Varieties of tea are produced, such as green tea, white tea, black tea, oolong tea, yellow tea and flower tea. Tea is common and one of seven essentials of life.
The Architecture

To begin a design with in-between concept I choose a site in Washington, DC’s Chinatown, which has an interactive background of American and Chinese culture. I think of the site is like another me, who exist on the boundaries, somewhere in-between east and west.

I created a small alley in-between the whole building, which divides the building to two parts. One side is for exhibiting the history of tea and the other site is for tea-drinking and service. Because the left or west side is for mental travel, and the right or east side is for physical demand, they should be different from each other. That is why I used round wood columns in the tea-drinking space which refers to the atmosphere of old tea houses, and square concrete columns which refers to contemporary times and construction techniques.
I created some in-between spaces in the entrance of the museum and under the first floor of the tea house, because I think of in-between spaces as “intermediary zones have come to be regarded as an important means for reducing the feeling of alienation that have been created by modern architecture’s separation of urban space into public and private”.  

One key question is how to connect the two parts of building together? The bridges and staircase are used because a bridge does not belong to left side or right side, and a staircase does not belong to upstairs or downstairs. They are in-between spaces which connect two separate places and brings them together.

When you look at the traditional house in China, under the eaves, the intermediary space is created between the open space and closed space. This roof edge distinguishes between the private and the public, and between the individual and the society. So under the roof, between the alley and enclosed rooms, an in-between space is made for people to rest, chat and drink tea.

As you walk in the exhibition rooms, or sit down in the tea-drinking house, you can see other people in the corridor and mezzanine. These spaces are in-between two spaces and the overlap them.

**IN-BETWEEN MEZZANINE**

Mezzanine plan in tea-drinking room

Mezzanine section in tea-drinking room

**IN-BETWEEN BALCONY**

Balcony plan in exhibition room

Balcony section in exhibition room
I created in-between space with the windows too, where the frame and the glass are detached to leave some space in-between. In this way, the frame can make a beautiful shadow on the glass.

In-between space exists between the wall and the column. Walls do not touch the column directly, in order to reveal the load bearing and non-load bearing parts of building. Why do I want to make this in-between space between the column and structure? As in the building, the structural system is column and beam, which is the modern structure, but also is a traditional structure in China. So I would like to make this structure more clear in the museum, which expresses the time from old China to today.
From these narrations, the characters of the 5 period are Mysterious, gorgeous, fashionable, tasteful and secular. How to translate these features to these exhibition rooms? The wall and window which create the space to show the history of tea-making is like the vessel to hold the tea.

I choose varies colors for each room from each period. When visitors begin the tea history trip in the museum, he/she will begin from the last period from Qing dynasty to the present. I choose a white color to show a feature of the secular, because white is composed of many other colors like the abundant tea types and tea sets. The window frame is the common style in the ordinary people’s home.
Then we get to the tea room of Ming dynasty, the character is tasteful. At that time, the most popular porcelain for tea is “Qing hua” (blue and white wares), whose color is blue. So the topic of this room uses blue color, and the frame is made from bamboo that means elegance in Chinese culture.
The third period is fashionable as the tea sets were Qingbai wares in the third era of tea history. At that time, the cracked ice crakle on the tea-bowls was fashionable. Thus the window’s frame imitates cracked ice crackle.
THE SECOND PERIOD - GORGEOUS

Now we walk through the gorgeous room of tea-history, when tea was a drink only for royalty, aristocracy and wealthy people. In that period, gold and other expensive materials were used to drink tea. Therefore, the room is of golden color, and the frame of the window is simple and abstract.
At last we return to the origin of tea, the mysterious room. The room is dark and full of strange shadows on the wall or floor when sun shines on the window. The color of the room is brown as the earliest cups were made from clay. The frame of the window is “Hui Wen”, which was the fashion in the Bronze Wares.
DETAIL OF DOOR/WINDOW

All the window/doors in the building have in-between space within themselves. The framing is on the exterior and the glass is facing the interior with a three inch gap in between them, so the light can create interesting shadows on the glass. Also the glass implies the meaning of the rice paper in traditional Chinese window.
This is the detail of the bridge connecting each exhibition room. The glass panel and the concrete floor are in the same height, but the change of material express the idea of in-between.

This is the detail of the bridge connecting the teahouse and the exhibition room. The glass panel was put directly on the concrete floor, which becomes an element in-between the two boxes.
DETAIL OF SKYLIGHT

The skylight is only for the second exhibition room which dates from the fourth period of Chinese tea history. I decided to use bamboo to frame the skylight because bamboo means ‘rich flavor’ within Chinese culture. In the same time, the shadow of bamboo can express the tasteful character of the space.
DETAIL OF GUTTER

The gutter is made of two walls of brick, so it is in harmony with the rest of the building.
DETAIL OF LAYING BRICK

Different ways of laying brick is for different parts of the building.

FOR EXHIBITION ROOMS

FOR TEA-DRINKING ROOMS

FOR TEA-DRINKING PORTICO
DETAIL OF WALL

There is a small piece of glass in-between the wall and the column, which separate the load bearing and non-load bearing structure.
The stair in the lobby is made of glass and steel. As an object in-between the floors, its material should be different from the other floors and allow for a visual transparency.
The duct hangs under the beam.
CONCLUSION

Throughout my thesis, I explored the importance of the in-between space in the modern building. In my mind, the space of the in-between is one connecting two separate areas, and transitioning the difference from one to another; a space to reduce the alienation of the contemporary city; a space of ambiguity, hybrid and uncertain, a space full of tension. Simultaneously, I wanted to explore the architecture of my building from the structure to the detail, in materials, and for the full feeling of visitors.
BIBLIOGRAPHY


