



## *Research article*

# Typical Beijing Courtyard House

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## ABSTRACT

This article mainly introduces the characteristics of typical courtyard houses in Beijing. It mentioned that the courtyard house is a traditional residential form in Beijing, consisting of four buildings enclosed to form a central courtyard. This house structure dates back to ancient China and has unique cultural and historical value. The article also mentioned the design features of the courtyard, such as the layout of the courtyard, the orientation and distribution of the buildings, and the functions of the rooms. Quadrangle houses typically have separate entrances and privacy, while also providing space for socializing and family activities. Overall, this article provides a detailed description of the structure and design of a typical courtyard house in Beijing.

**Keywords:** courtyard houses; design features; house structure

## **1. Introduction**

The architectural significance of Beijing's courtyard houses lies in their embodiment of traditional Chinese architectural principles, their integration with nature, their modular construction techniques, their adherence to Feng Shui principles, and their rich cultural symbolism. Studying courtyard houses provides valuable insights into the architectural heritage of Beijing and the broader cultural context of traditional Chinese architecture.

## **2. What is typical Beijing courtyard house**

Typical Beijing courtyard house, also known as Beijing quadrangle courtyard, is a traditional Chinese high-end courtyard-style building. Its layout is a courtyard with houses built on all sides. It usually consists of a main room, east-west wing rooms, and inverted houses, enclosing the courtyard from all sides in the middle. The Beijing quadrangle courtyard is a brick-wood structure. The shelves, columns, beams, doors and windows, etc. are all made of wood, and the wooden shelves are surrounded by brick walls. Most of the roof tiles are made of Cyan slab tiles, and drip tiles are installed in front of the eaves, or the roof tiles are completely covered with cyan ash, which is called "gray shed". ("Drip" is a special tile at the bottom of the tile trench formed by the roof tiles of the building. Generally, dripping water is set on the underside of the eaves

and windowsills, and its function is mainly to prevent rainwater from corroding the walls along the eaves and windowsills.) [1]

### **3. The history of Beijing courtyard houses**

Since the official establishment of the capital in the Ming Dynasty (1368-1644) and the large-scale planning and construction of the capital, the Typical Beijing courtyard house has appeared at the same time as Beijing's palaces and neighborhoods. However, the Typical Beijing courtyard house is not a sudden emergence of architectural forms, but gradually evolved from traditional Chinese courtyards. According to archaeology and research, it is known that the earliest quadrangle courtyard in China appeared in the Western Zhou Dynasty, more than 3,000 years ago. [2]

### **4. The layout of the Beijing courtyard house**

Typical Beijing courtyard house is not a single-form house, but a group of buildings that can be freely combined. Many Typical Beijing courtyard houses are composed of a quadrangle courtyard or multiple quadrangle courtyards.

A quadrangle courtyard is generally a main room with two corner houses. There are two east and west wing rooms, and three south rooms (inverted rooms). The courtyard is paved with brick corridors, connecting the doors of various houses, and there are steps in front of each house. The two

door panels decorated with black color make up the gate. There is a pair of brass door cymbals on the door, and couplets are usually affixed on both sides. When a quadrangle courtyard appears alone, it can be called a small quadrangle courtyard. [3]

#### *4.1 "Jin Yuan"*

When the quadrangle courtyard merges from front to back, it is called "Jin Yuan" or "tier courtyard". Adding a screen wall and a screen gate in front of the east and west wing rooms and dividing the entire courtyard into a front yard and a back yard is called "two-tier courtyard." The front yard has the function of reception. The inner courtyard is the courtyard where the owner's family lives and has a certain degree of privacy.

Add a backyard and a row of rear enclosures after the main house of the "two-tier courtyard", which is called the "three-tier courtyard". Three-tier quadrangle courtyard is the most typical Beijing courtyard house model. The length is generally 50-60 meters, which is exactly the distance between the hutongs [4] (Hutong is an alley with quadrangle courtyards on both sides) that are mostly separated by Beijing. Those who live in the "three-tier courtyard" are generally regarded as middle-class families. Both "two-tier courtyard" and "three-tier quadrangle courtyard" can be called middle quadrangle courtyard.

Adding quadrangle courtyards to the middle quadrangle courtyard is

called the big quadrangle courtyard. The medium and small quadrangle courtyards are generally the residences of ordinary residents, while the large quadrangle courtyards are the residences of the rich or aristocrats or government office.

#### 4.2 *"Kai Yan"*

When the quadrangle courtyard merges from left to right, it is called "Kua Yuan". The cross courtyards of the multi-Kua quadrangle courtyard are independent of each other and connected with each other by opening small doors on the Kua courtyard wall. These Kua-courtyards are generally used by large families with many descendants. A family with a lot of people and a lot of money lives in the Kua courtyards. However, for families with fewer people and more money, the courtyards were used to transform it into a garden or study, such as Keyuan and Wanrong Former Residence (Wanrong-the last queen of the Qing Dynasty).

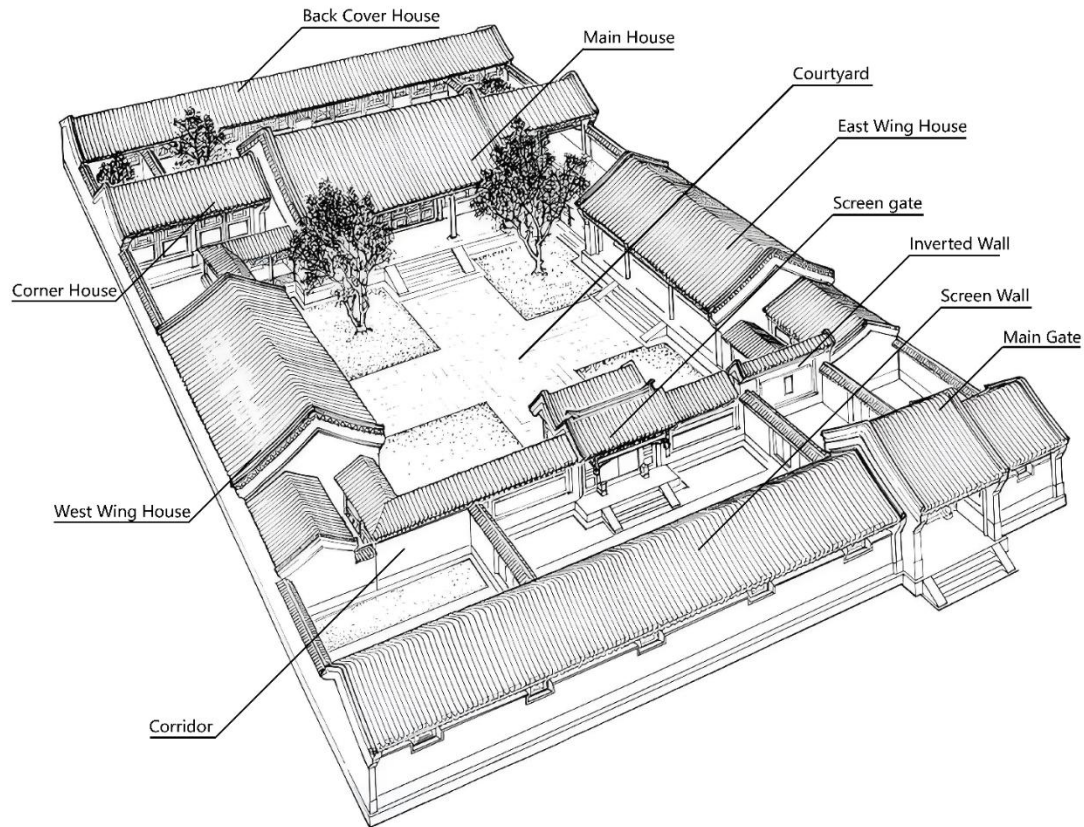


Figure 1: Three- Tier Quadrangle Courtyard

Take the most typical "three- tier quadrangle courtyard" as an example. The main gate is the first entrance of the Typical Beijing courtyard house. As for the position of the main gate in the Typical Beijing courtyard house, it is generally at the southeast corner of the courtyard. This position is the Xun(巽) position in the Fengshui Eight Diagram. [5] The layout and gossip layout of Typical Beijing courtyard house is a place to make money. The owner set the gate here because he wants to make money every day.

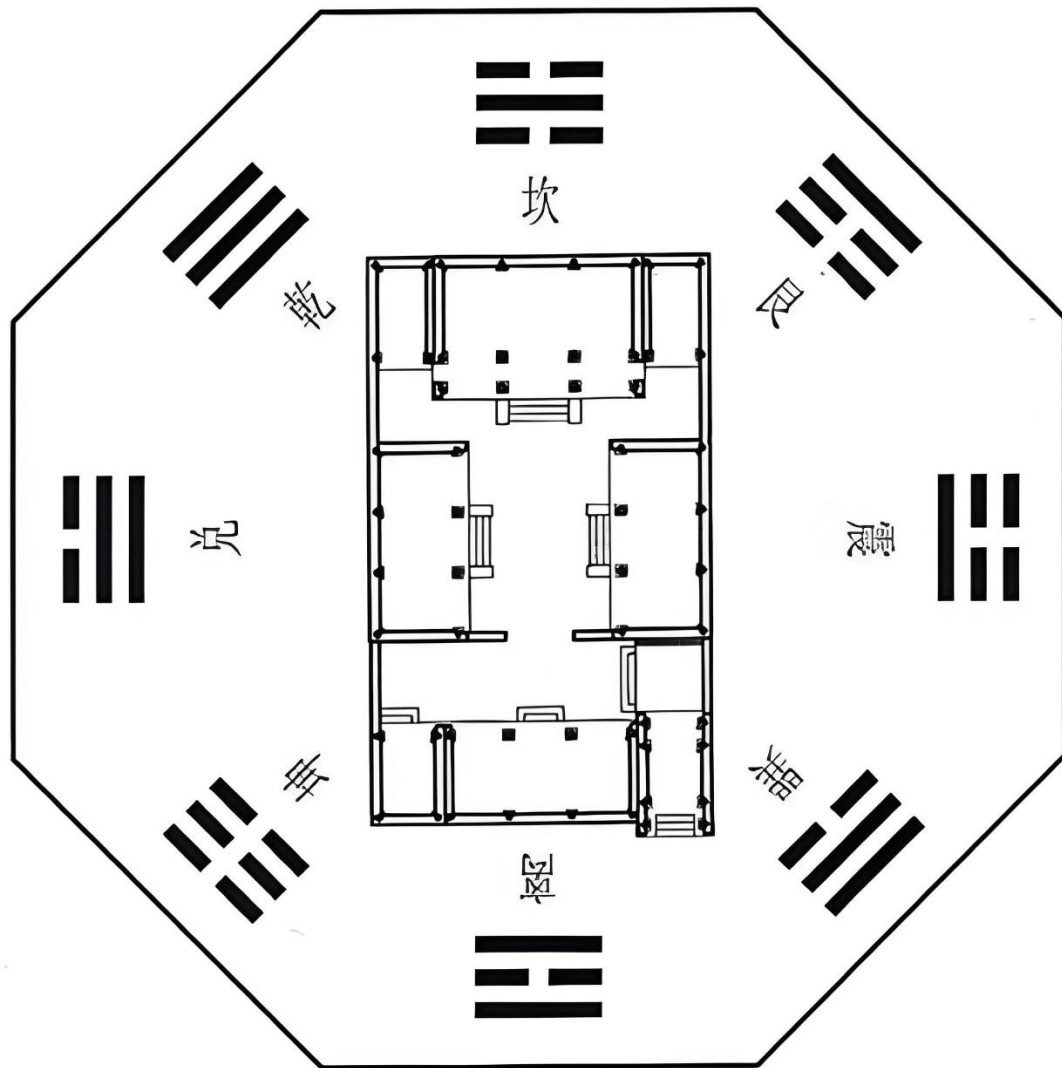


Figure 2: Fengshui Eight Diagram

#### 4.3 Components of the Beijing courtyard house

Inverted house-Inverted house is the only house in the courtyard facing away from the street. It is the house on the outermost side of the courtyard. It is a house-sitting upside down to the main house. Inverted houses are generally used as accommodation for servants or foreign guests.

Screen gate- Screen gate appears in the quadrangle courtyard with more

than two entrances. It is the second entrance of the house. It is named after the weeping lotus column on the door.

Main house-Main house is generally the building in the middle of the inner courtyard. The main house is the highest-level building in the house, and the roof is higher than other buildings. The main room is for the owner's use. Usually, the head of the household lives in it.

Corner house- corner houses are located on both sides of the main room and looks like the ears of the main house. The corner houses are generally small and generally used as a storage room.

Wing house-Wing house is located on both sides of the inner courtyard. Generally, there are two wing rooms for the owner's son and daughter-in-law to live in.

Corridor-Many Typical Beijing courtyard houses use a circle of corridors to connect the main room, the wing room and the screen gate together. People can take shelter from the rain and rest under the cloister.

Back cover house- Back cover house is the last building of the Typical Beijing courtyard house. It is the end of the Typical Beijing courtyard house and covers the entire courtyard at the back. The back cover room is located in the backyard and has the best privacy. It is often used by female family members (female family members refer to the host's mother, lover, sister, daughter and other female family members), and



occasionally used by servants. Owners with relatively rich family wealth will also build the back cover house on the second floor, calling it the "back cover building". The end of the Qing Dynasty to the Republic of China period (1840-1945) was the peak period for the construction of the back cover building. [6]

## 5. The decorations of Beijing courtyard houses



Figure 3: Door Pier

Door piers-door piers are often on the front and back sides of the gate, or in front of and behind the second gate (screen gate). The independent screen wall in the courtyard is made of stone. Door jewels are usually carved with traditional Chinese auspicious patterns. Beijing's door piers

are mostly box-shaped and drum-shaped, but there are also lion-shaped, polygonal column and water bottle-shaped door piers. [7]

Screen wall- In some Typical Beijing courtyard houses, there is a screen wall placed on the wall facing the main gate. The other type is located outside the main gate opposite to the gate, separated by the alley. There is also a higher specification, on both sides of the gate. The screen wall plays a role of blocking the line of sight, avoiding the inside of the yard from being seen by pedestrians at the main gate, and protecting the privacy of users. The screen wall is also an important place to highlight the status, taste, and financial resources of the owner. The top of the screen wall is a shell tile, which acts like a roof tile to draw rainwater away from the main body of the screen wall, so as not to corrode the main body of the screen wall. In the middle is the main body of the screen wall, which is generally framed by bricks, with various auspicious characters or patterns in the middle.

Decorative painting-Decorative painting is the simplest Suzhou-style decorative painting used on wooden structures. In the middle of decorative painting, there are semicircular Chinese paintings with landscapes, figures, flowers and birds. However, most of the architectural paintings of Typical Beijing courtyard house are simply painted with simple patterns or only painted. [8]

Scorpion tail-generally at both ends of the ridge of the Typical Beijing

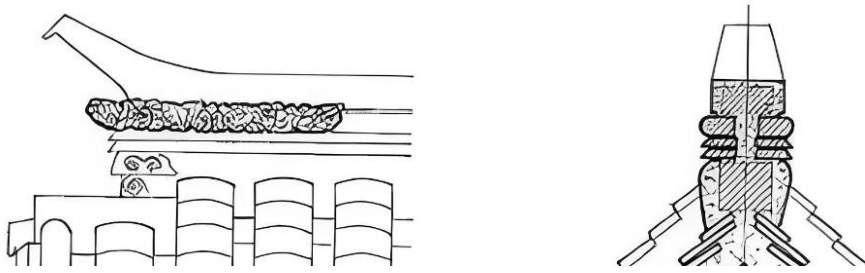


Figure 4: Scorpion Tail

courtyard house. It is named because the two ends are tilted upward and have an angle of  $35^\circ$  with the plane, like the tail of a scorpion.

Decorative cylinder-two small wooden blocks protruding from the common door frame can be seen. In the early period, it was fixed and connected, and it was mostly square in the Han Dynasty (202 BC - 220 AD).<sup>5</sup> In the later period, it evolved into a decorative object, beginning to appear in octagonal hexagons and even flower shapes, with auspicious characters appearing on it. [9]



Figure 5: Decorative cylinder

Brick carving-Brick carving is very common in Typical Beijing courtyard

house. Common patterns appearing in the center of the wall, the top of the wall, and the ridge of the roof are pine, bamboo, flowers and birds. Sometimes there are several figures like comic strips. A small number of Typical Beijing courtyard houses in modern times are influenced by Western architecture. Brick arches are installed in the courtyard, but the carvings on the doors still adopt Chinese traditional patterns.

Planting-Typical Beijing courtyard house pays attention to planting trees and flowers in the courtyard. Traditionally, people love to plant are lilac, crabapple, flowering plum, mountain peach, etc. The trees are mostly jujube and locust trees. In addition to planting flowers and plants, they can also be planted in pots and water. The most common potted flowers and trees are pomegranate, oleander, golden laurel, silver laurel, rhododendron, gardenia and so on. As for the grass jasmine, impatiens, morning glory, and lentil flowers in the flower garden in front of the stage.

## **6. Conclusion**

Beijing's courtyard houses are architectural treasures that embody centuries of China's cultural heritage, architectural innovation and social significance. With their central courtyards, symmetrical layout and integration with nature, these iconic buildings embody the traditional Chinese architectural principles of balance, harmony and Feng Shui. Their architectural significance goes beyond mere historical monuments,

and their modular design can serve as an important reference for architects.

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