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# STUDY ON THE LOONG PATTERN ART OF THE COMPONENTS IN DONGYANG ANCIENT RESIDENTIAL BUILDINGS

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## ABSTRACT

*This study examines the creative qualities, aesthetic worth, and cultural and social importance of the loong pattern decorative art found in Dongyang ancient homes. Loong designs, which convey rich historical and cultural knowledge and exhibit morphological variation and excellent craftsmanship, are commonly utilised in Dongyang ancient dwellings and are considered the spiritual symbol of Chinese civilisation. The study reveals the artistic value and cultural heritage of dragon patterns in Dongyang ancient residences by methodically documenting and analysing the morphological changes, decorative techniques, and social and cultural significance of dragon patterns through literature research and field investigation. According to the study, loong patterns play a significant role in Dongyang old homes as decorative art. Its aesthetic worth comes from its clever integration with other auspicious patterns as well as its exhibition of symmetry and formal beauty. The evolution of dragon designs is a reflection of shifts in aesthetic conceptions and social culture. The forms and decorative techniques evolved from simple to complex, from rough to delicate, between the middle of the Ming Dynasty and the end of the Qing Dynasty. Additionally, the employment of dragon designs accurately depicts the social structure and class distinctions of the era. The architectural art of Dongyang's ancient homes is preserved and passed down thanks to this study, which also offers a fresh viewpoint on Chinese traditional culture, fosters respect and understanding of traditional culture, and encourages the modernisation and innovation of traditional architectural art. In addition to offering inspiration and a point of reference for contemporary architecture and environmental decoration art, a thorough examination of the dragon pattern decorative art may help us comprehend the qualities and significance of Dongyang's historic residential building.*

**KEYWORDS:** Loong Pattern, Dongyang Woodcarving, Ancient Residential Building.

## 1. INTRODUCTION

### 1.1 *The Artistic Value of Loong Patterns in Dongyang Ancient Residential Building Components*

Ancient residential buildings in Dongyang have made extensive use of loong motifs, which are considered the spiritual symbol of Chinese civilisation. Its creative qualities include a wide range of forms and superb craftsmanship, as well as both intricate and beautiful pieces as well as simple and elegant pieces. loong pattern decoration conveys rich historical and cultural knowledge while also showcasing the exceptional craftsmanship of Dongyang artisans and the family's wealth and position.

Dongyang's ancient residential buildings' employment of loong designs illustrates the society's desire for power and search for auspicious meanings throughout that era. The form and ornamental techniques of loong designs have changed over the course of the more than 400 years from the middle of the Ming Dynasty and the end of the Qing Dynasty, going from simple to complicated, from rough to delicate. This process reflects the evolution of workmanship as well as shifts in aesthetic conceptions and social culture.

Dongyang ancient residential buildings place a high value on the decorative art of loong designs. Its symmetry and formal elegance, as well as its clever blending with other fortunate patterns to create a unique pattern combination full of auspicious meanings, are what give it its aesthetic significance.

### 1.2. *Purpose and Significance of the Study*

Through a methodical examination of loong patterns in architectural elements, this study aims to uncover the artistic qualities, aesthetic worth, and cultural and social importance of loong patterns found in Dongyang ancient residential buildings. In addition to documenting and examining the morphological variations and ornamental methods of loong patterns, the study also looks at the social and cultural significance of these patterns throughout history, as well as their underlying spiritual requirements for environmental decorative art in buildings.

The architectural art of the historic Dongyang residential buildings is preserved and passed down thanks to this study, which also offers a fresh viewpoint on traditional Chinese culture. A thorough examination of loong pattern ornamental art can foster the invention and transformation of traditional architectural art in contemporary environmental

design while also improving people's awareness of and appreciation for traditional culture.

## 2. RESEARCH METHODS AND SCOPE

### 2.1. *Research Methods*

**Literature research** This study searched for academic papers related to the topic in the past five years through Google Scholar and China National Knowledge Infrastructure, consulted professional books on this field from the National Museum of China, and monographs on Dongyang history, such as the monographs "Dongyang Ancestral Hall" and "Research on Dongyang Woodcarving Decorative Art in Ming and Qing Dynasties", to select the research objects of Dongyang ancient residential buildings to ensure that this research case is representative. Using "Dongyang ancient residential buildings", "loong pattern", "building components" and other keywords for search, we screened out the literature published in core journals with a time span from 2019 to 2024. For the selected literature, we extracted key information about the application form, historical evolution, cultural connotation, etc. of loong patterns in the architectural components of Dongyang ancient dwellings, and classified and sorted them.

**Field research** This study chose Chengdong Street, Nanma Town, Weishan Town, Hulu Town, and other localities in Dongyang City as the sites for fieldwork based on literature research. The architectural features of Dongyang ancient houses and the development of loong pattern decorative art are fully displayed in these regions because they have preserved comparatively complete ancient residential building complexes (Yu & Yu, 2013), which represent the architectural styles of various historical periods.

A range of techniques, including field observation, interviews, photographic documentation, and drawings, were employed during the field inquiry. The investigative team made in-depth field studies of several elements of historic residential structures and meticulously documented details including the location, dimensions, form, and artistry of the loong designs found within the structures. Building elements such Beams, Fang, Qinfang, Corbels, and Sparrow brace were all included in the scope of the observation, which focused especially on the interaction between loong patterns and other ornamental designs.

Interviews with locals, specialists in the preservation of ancient structures, and traditional craftspeople helped us better grasp the loong pattern's historical roots, cultural meanings,

manufacturing methods, and significant place and function in the community. In-depth conversations and debates centred on pre-formulated questions characterised the semi-structured interviews.

**2.2. Research Scope**

Located in the centre of Zhejiang Province (Figure 2-1), Dongyang City is a county-level city under Zhejiang Province's administration. It is run by Jinhua City (Dongyang Municipal People's Government Portal, 2024). The Jinqiu Basin, which is the dominant geographical feature, is made up of a number of smaller basins that alternate in a lace-like pattern, such as the Yongkang, Wuyi, Dongyang, and Nanjiang basins (Jiang Leping, 2023). The study's focus, Dongyang City, has a subtropical monsoon climate and geographic setting. The settlements where the buildings are situated are mostly found in the alluvial Dongyang, Nanma, and Nanjiang basins as well as the valleys between mountains. Generally speaking, there are two types of villages: those that face the mountains and those that face the water. The moderate, humid temperature and level topography are common features. Consequently, Dongyang City's geography makes it a good place for people to

live, and the landscape and buildings blend well together (Hu, 2023).

The Materials and Methods should be described with sufficient details to allow others to replicate and build on the published results. Please note that the publication of your manuscript implicates that you must make all materials, data, computer code, and protocols associated with the publication available to readers [2]. Please disclose at the submission stage any restrictions on the availability of materials or information. New methods and protocols should be described in detail while well-established methods can be briefly described and appropriately cited.

Research manuscripts reporting large datasets that are deposited in a publicly available database should specify where the data have been deposited and provide the relevant accession numbers [3-5]. If the accession numbers have not yet been obtained at the time of submission, please state that they will be provided during review. They must be provided prior to publication.

Interventionary studies involving animals or humans, and other studies that require ethical approval, must list the authority that provided approval and the corresponding ethical approval code.

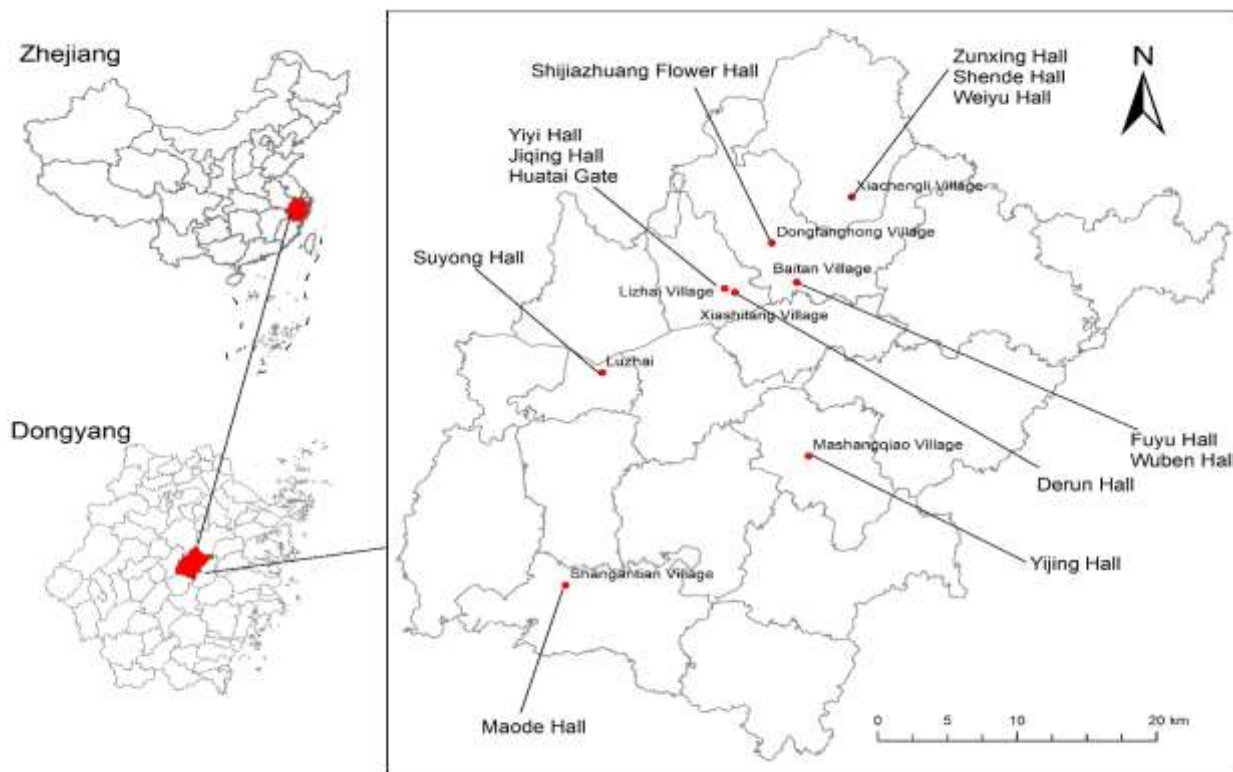






Figure 2-1: Dongyang City.






Dongyang wood carvings, bamboo weaving, stone carvings, brick carvings, and other ornamental





arts make up the majority of Dongyang's old residential buildings (Hu, 2024), creating a system of residential buildings with distinctive Confucian cultural features (Table 1-1). The 13 old structures that are within Dongyang City's jurisdiction include

Chengdong Street, Shangantian Village, Lizhai Village, Xiashitang Village, Dongfanghong Village, Baitan Village, Xiachengli Village, Mashangqiao Village, and more.

**Table 1-1: Ancient residential buildings in Dongyang.**

Name	Photo	Location	Main loong patterns	Cultural influence
Huatai Gate		Lizhai Village, Liushi Town	Guaiziloong pattern, Loong whisker pattern, Caoloong pattern	Li's House Huatai Gate is a key cultural relic protection unit in Dongyang City and was selected into the "Zhejiang Province Architectural Exhibition Album" compiled by the Zhejiang Province Architectural Association.
Suyong Hall		Dongyang City- Chengdong Street	Chi loong pattern, Loong whisker pattern, Caoloong pattern.	Suyong Hall is an ancient residence with nine entrances and five rooms. Its spatial sequence is similar to that of the Forbidden City in Beijing, so it has the reputation of "there is the Forbidden City in the north and Suyong in the south". This building is not only large in scale, but also extremely fine in details. For example, the brackets, beams, rafters, and purlins are all engraved with exquisite patterns and designs. (Zhao, 2021)
Jiqing Hall		Lizhai Village, Liushi Town	Loong whisker pattern, Guaiziloong pattern, Chi loong pattern	Jiqing Hall is the main building on the vertical axis of Lizhai Village. It is the hall where the Li family welcomes guests, holds family meetings, and entertains during major celebrations. It was renovated in the 21st year of Emperor Guangxu of the Qing Dynasty (1895) (Zhang, 2014). It has strong functionality and was used as a mushroom farm in the 1970s. In 1983, it was converted into a theater. It is now the Lizhai Community Elderly Association.
Weiyu Hall		Xiachengli Village, Hulu Town	Loong whisker pattern.	Wang Zhongfen wrote in "Oriental Housing Pearl: Dongyang Folk Houses in Zhejiang Province": "Weiyu Hall in Xiachengli, Hulu Town, is the largest, most house-filled, most courtyard-filled, most meaningful, most rigorously laid out, and most fully functional courtyard house in China. (Zhu, 2010)

Zunxing Hall		Xiachengli Village, Hulu Town	Chi loong pattern, Caoloong pattern, Loong whisker pattern, Guaiziloong pattern	The themes of the woodcarving decorations in Zunxing Hall are mostly drama plots, with rich images and distinct characteristics. It is known as the "solidified drama stage". (Hu, 2019)
Yiyi Hall		Lizhai Village, Liushi Town	Kuiloong pattern, Caoloong pattern, Loong whisker pattern, Guaiziloong pattern, Three Stops and Nine Similarities loong pattern	Yiyi Hall was built according to the terrain. It has a strict architecture and an orderly layout. It is on the same axis as Shangshufang and Jiqing Hall. It is progressive and rises step by step. It is the highest ancient building in Lizhai Village.
ShenDe Hall		Xiachengli Village, Hulu Town	Kuiloong pattern, Loong whisker pattern, Guaiziloong pattern, Three Stops and Nine Similarities loong pattern	There are more than 200 carvings on the beams, doors and windows in ShenDe Hall, with clear patterns, perfect shapes, and lifelike figures. It is a culmination of Qing Dynasty opera wood carvings and is known as an opera museum. (Wu, 2023)
Wuben Hall		Baitan Village, Weishan Town	Caoloong pattern, Loong whisker pattern	Wuben Hall is a typical group of "13-room" residential buildings (Fu, 2019). It was destroyed by fire in 1998, but the main building was preserved. It was reinforced and repaired in 2014.
Fuyu Hall		Baitan Village, Weishan Town	Kuiloong pattern, Caoloong pattern, Loong whisker pattern, Guaiziloong pattern, Three Stops and Nine Similarities loong pattern	Fuyu Hall is a double-axis, four-room layout in a herringbone shape. The interior of the building is decorated with a large number of Dongyang wood carvings, in addition to brick carvings, clay sculptures, paintings, calligraphy and other techniques. (Hu, 2023)

<p>Yijing Hall</p>		<p>Mashangqiao Village, Huxi Town</p>	<p>Loong whisker pattern, Guaiziloong pattern</p>	<p>A large number of wood carving techniques are used in the Yijing Hall, which is a model of the combination of Dongyang wood carving and traditional folk houses. "The carved brackets and Loong whisker pattern beams, and the scenery and figures are carved all over the hall" is a perfect description of the decorative style of the Mashangqiao Flower Hall. (Jin, 2024)</p>
<p>Maude Hall</p>		<p>Shangantian Village, Nanma Town</p>	<p>Loong whisker pattern, Guaiziloong pattern</p>	<p>The provincial cultural relic protection unit, the front hall and the main hall are both thirteen-room three-courtyard layout. The building complex is mainly wood carving, supplemented by stone carving, brick carving, etc., with exquisite craftsmanship, representing the residential architecture of Dongyang in the late Qing Dynasty. The top of the pavilion is decorated with gems, showing its unique style and craftsmanship. (Chen &amp; Zhang, 2021)</p>
<p>Derun Hall</p>		<p>Xiashitang Village, Liushi Town</p>	<p>Guaiziloong pattern, Loong whisker pattern, Three Stops and Nine Similarities loong pattern</p>	<p>Derun Hall is a huge house that showcases the wisdom of traditional architecture. It is also the only example of a hall in a village in Dongyang (Ye, 2018). Because it has more than 500 pillars, it is named "Thousand Pillars on the Ground".</p>
<p>Shijiazhuang Flower Hall</p>		<p>Dongfanghong Village, Weishan Town</p>	<p>Kuiloong pattern, Guaiziloong pattern, Loong whisker pattern.</p>	<p>The front porch and ceiling are also covered with wood carvings, which are decorated with landscapes, pavilions, and stories of people. It is known as the "First Flower Hall in Jiangnan" (Liu, 2024)</p>

(Source: by the author)

This article mainly discusses the ancient dwellings in Dongyang from the Jingtai period in the middle of the Ming Dynasty to the Xianfeng period

in the late Qing Dynasty, a time span of about 400 years (Table 2-2).

Table 2-2: Ancient dwellings in Dongyang from the mid-Ming Dynasty to the late Qing Dynasty.

Area	Hall (name)	Dynasty	Time
Lizhai Village	Huataimen	Ming-Zhengde	14xx
Lu's House	Suyong Hall	Ming-Jingtai	1456
Lizhai Village	Jiqing Hall	Ming-Jiaqing	1558
Xiachengli Village	Wei Yu Hall	Qing-Qianlong	1746
	Zunxingtang	Qing-Qianlong	1787
Lizhai Village	Yiyi Hall	Qing-Jiaqing	1793
Xiachengli Village	Shen De Hall	Qing-Jiaqing	1795
Baitan Village	Wuben Hall	Qing-Jiaqing	18xx

	Fuyu Hall	Qing-Daoguang	18xx
Mashangqiao Village	Yijing Hall	Qing-Daoguang	1837
Shangantian Village	Maode Hall	Qing-Guangxu	18xx
Dongfanghong Village	Shijiazhuang Flower Hall	Qing-Guangxu	1905
Xiashitang Village	Derun Hall	Qing -Jiaqing-Xianfeng	17xx

### 3. LITERATURE REVIEW

The history and civilisation of the Chinese people are extensive. Our predecessors developed a very sophisticated architectural culture over the course of the five thousand years of history. This is exceptional and one of a kind in the architectural culture of the world.

The idea of the patriarchal system is the primary source of the style that dictates the grouping of ancient buildings and their vertical and horizontal expansion in the history of ancient Chinese cultural development. Based on natural blood relationships and originating from the ancestor worship of early clans, patriarchal system thought is rooted in respect for ancestors (Wang & Xu, 2024). The Chinese have long held their ancestors in high regard. During the Han Dynasty, Xu Shen's "Shuowen Jiezi" stated: "Zong, respect ancestors, temple." "宗" and "示" make up the word "Zong," which indicates that sacrificial activities take place beneath the dwelling. According to Chen (2023), "temple means to respect the ancestors," hence the ancestor's photo ought to be hung throughout the sacrifice.

This has a lot to do with architecture, which is now essential to the clan's survival and wealth. However, blood-related clans must coexist in order to fortify the clan's cohesiveness, which necessitates that the building be a sizable collection of numerous rooms merged into one.

The building must be based on a location with a lot of land and lengthy, green water since, in the minds of the ancient Chinese, land is the basis for the clan's progress. However, the building can only extend horizontally because of the length and bearing capacity of wood, which prevent it from developing upward. When combined with the folk dwellings, the ancestral hall—a shared area of the clan—becomes the tangible totem and symbol of the group. It is inseparable, interconnected, and interdependent. Luo (2010)

During the height of the Ming and Qing Dynasties and the Republic of China, the majority of the Dongyang homes that are still standing were constructed (Hu, 2023). Renowned for its distinctive architectural design and rich cultural legacy, Dongyang old homes are an important part of Chinese traditional culture. In addition to displaying

the architectural traits of the Dongyang region, structures like Jiqing Hall, Suyong Hall, and Huatai Gate also contain a wealth of historical and cultural data. Huatai Gate represents the wealth and prestige of the family and displays the talent of Dongyang artisans with its magnificent design and carved murals. Suyong Hall is a significant location for family gatherings and cultural transmission, and its solemnity and elegance are indicative of Confucian culture (Jiang, 2024).

The grand scale and exquisite wood carvings of Jiqing Hall are suitable for family gatherings, reflecting the unity and prosperity of the family. Weiyu Hall and Zunxing Hall show the pursuit of quality of life by Dongyang people, while Yiyi Hall and Shende Hall reflect the emphasis on moral education. The design of Wuben Hall and Fuyu Hall takes into account the daily life needs of the residents, while Yijing Hall and Maode Hall are places where the children of the family receive education, integrating education, architecture, sculpture, literature and art (Jing, 2024). Shijiazhuang Flower Hall in Dongyang is known as the "First Flower Hall in Jiangnan". It is a representative of the combination of Dongyang wood carving and architecture, and a place for family members to relax, entertain and socialize (Liu, 2024).

Ancient homes in Dongyang also frequently feature loong motifs, which are the spiritual symbol of Chinese civilisation. Because the loong symbolises the royal family and the ultimate power and because using loong patterns is strictly regulated by hierarchical rules, the "three stops and nine likes" loong pattern representations were uncommon in Jiangnan homes' wood carvings during the early Qianlong period. According to some academics, the Qing court's dominance did not start to wane until the Jiaqing period, at which point more abstract loong patterns, including the Kuilong, Chilong, Guaizi, and Caolong patterns, started to show up on the wood carvings of Jiangnan homes (Gu, 2024). The most popular patterns among them are the Caolong and Guaizi loong patterns.

### 4. BUILDING COMPONENTS AND LOONG PATTERNS IN DONGYANG ANCIENT DWELLINGS

The main building components of Dongyang

ancient dwellings (Beam, Fang, Qinfang, Corbel, Sparrow brace)

#### 4.1. Beam

##### 4.1.1. Position of Beam

The crossbeam can be separated into moon beams

and straight beams based on appearance (Figure 4-1). Whereas the moon beam has arcs on its upper and lower sides and a concave upward lower side, the straight beam has straight lines on its upper and lower sides. The Ming Dynasty is when the majority of structures with straight beams were constructed.

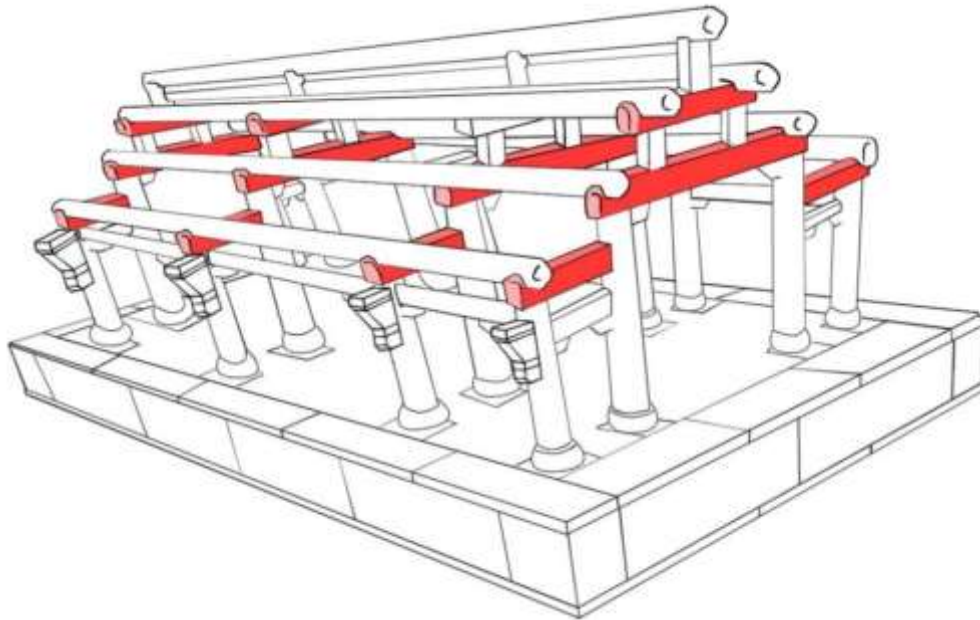


Figure 4-1: Beam.

##### 4.1.2. Pattern of Beams

The main loong pattern on the beam parts has the loong whisker pattern as its core feature. This pattern is shaped like shrimp whiskers, also known as the "loong whisker" pattern. Its shape is like the gills of fish, so it is also called the "fish gill" pattern. This pattern has evolved, and its arc gradually transitioned from round to elliptical, and then formed an irregular curve shape. Its tip part has evolved into a whip rope shape that seems to be floating in the air, and in some cases, wave pattern elements are incorporated to enhance its dynamics.

The form of loong whiskers is frequently utilised as a crucial chronological basis in the historical transmission of loong patterns. In particular, loong patterns started to exhibit the traits of loong whiskers during the Hongwu period of the early Ming Dynasty, but the whiskers were then comparatively short and thick. By the middle of the Ming Dynasty, loong whiskers had started to take on a distinct, elegant shape.

The loong whiskers of nearly every loong motif had become quite thin by the Xuande period, and the

majority of them flowed upward and forward. Later, this design became the standard for loong motifs from the Ming Dynasty. However, the loong whiskers eventually tended to be vertical as the middle of the Ming Dynasty went on. The direction of the loong whiskers' flow did not change significantly until the Chongzhen dynasty of the late Ming Dynasty, when it began to flow downward (Liu, 2023).





However, it appears that the evolution of this art form has little bearing on the loong whisker design, which is frequently utilised in buildings. The loong whisker pattern was thicker and more potent during the Qing Dynasty than it was during the Ming Dynasty, when it was longer and thinner.





Beams, one of the more crucial load-bearing elements in older structures, are comparatively simple in their patterning to prevent the mechanical load-bearing in the building structure from being broken. loong whisker patterns are used as decoration in all ten of the ancient residential buildings that have been studied thus far (Table 4-1). This invariably demonstrates the common

ideological domain of builders across time and location, which is roughly equivalent to the water

attribute in the Five Elements Theory and the practical requirements of fire prevention.

*Table 4-1: Dongyang Ancient Residential Buildings - Beams.*

Location	Photo	Time
Jiging Hall		<p>1558 Ming-Jiajing</p>
Lu's Residence		<p>1456 Ming-Jingtai</p>
FuyuHall		<p>Qing-Jiaging</p>
YiyiHall		<p>1793 Qing-Jiaging</p>

<p>Runde Hall</p>		<p>1859 Qing-Xianfeng</p>
<p>Yijing Hall</p>		<p>1837 Qing-Daoguang</p>
<p>Shijiazhuang Flower Hall</p>		<p>1905 Qing-Guangxu</p>
<p>Wuben Hall</p>		<p>Qing-Jiaging</p>

Since wood constituted the majority of ancient Chinese building, fire safety was highly desired. In

ancient buildings, for instance, the ninth son Chiwen (Fig. 4-2) (National Museum of China) is positioned

in the shape of a fish tail and a loong head on the roof's ridge. Since Chiwen like spitting water, it is the lone ornament on the roof and represents preventing fires. The beam has an excellent need for fire prevention because it is the main load-bearing component inside the building.



*Figure 4-2: Green glaze chiwen.*  
Source: National Museum of China.

The two extremities of the beam are formed like a loong head spitting water, and the loong whisker design is placed at both ends. Additionally, wave patterns are appended to the pattern's conclusion. The beam has a strong visual impact because it is a

massive wooden structure in the building. When you go into the building, the beam is the first thing you see. The beam with the loong whisker pattern, however, has a symbolic connotation that is both apparent and implicit among the various beam forms. You can sense the significance of replication from any angle when looking at the beam with the loong whisker design.

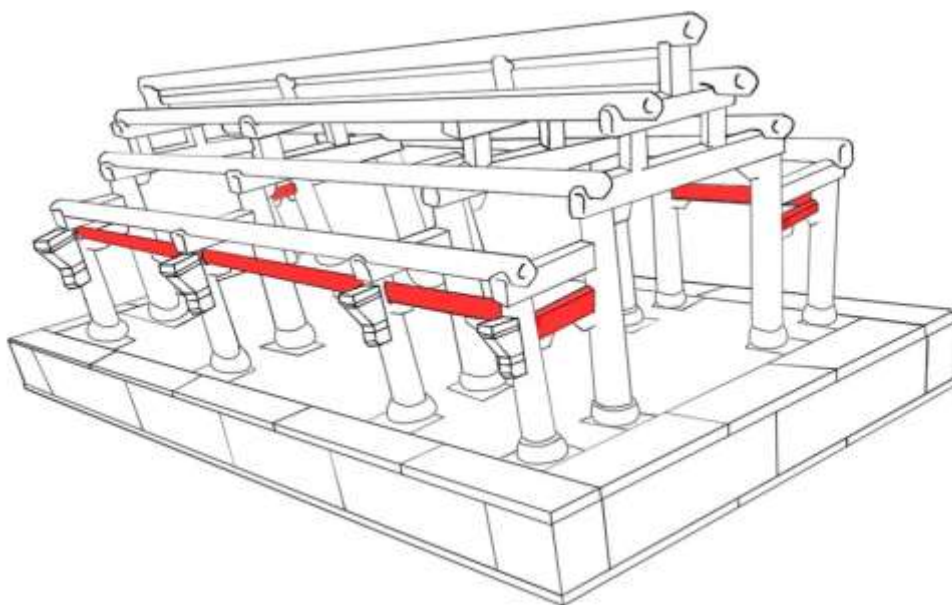
Another name for the loong whisker pattern is the fish gill pattern. In traditional culture, a fish represents having many children, while a loong represents masculinity. Fertility and the ability to procreate are the most profound and amazing natural attributes in primitive religion, and this led to the ancient culture of fertility worship (Zhang, 2019).

#### 4.2 Fang

##### 4.2.1 Position of Fang

A fang is a horizontal, rectangular beam used to join columns. It frequently joins numerous ornamental building elements, and the elements frequently have artistic designs painted or carved on them. (Zhu and Han, 2024) Although Fang and Beam are identical in height, their directions are very different.

The rectangular supporting beam beneath the beam in big wooden homes from ancient China is known as a fang; it is smaller in cross-section than the beam. It is called a beam because it has a more horizontal connecting role, whereas a beam bears more weight. A fang's cross-section is essentially rectangular. Some parts of the wooden structure are load-bearing, some are connecting, and some serve both purposes. (Fig. 4-3)



*Figure 4-3:Fang.*









### 4.2.2. Pattern of Fang

Only the exterior of the balusters has the majority of the ornamentation. Double loong whisker motifs at both ends are frequently used to adorn the outside. Depending on the baluster's length, it is frequently paired with curling grass and water ripples, as seen in the loong whisker pattern balusters in Jiqing Hall and Yiyi Hall (Table 4-2). This lengthens the loong

whisker pattern's design, gives the interior design of the baluster more substance and fullness, and enhances its elegance and dynamic qualities.

Under the Derun Hall beam, the lower half of the beam would be adorned with intricate patterns, such as the "three stops and nine similarities" type cloud loong pattern beam, as the homeowner's financial power steadily improved. Under the Fuyu Hall beam, the grass loong pattern was embellished (Figure 4-4).

**Table 4-2: Dongyang Ancient Residential Buildings - Fang.**

Location	Name	Photo	Pattern
Jiqing Hall	loong Beard Pattern		
Wuben Hall	loong Beard Pattern		
Shijiazhuang Flower Hall	loong Beard Pattern		
Fuyu Hall	Cao loong pattern		

### 4.3. Qinfang

#### 4.3.1. Position of the Qinfang

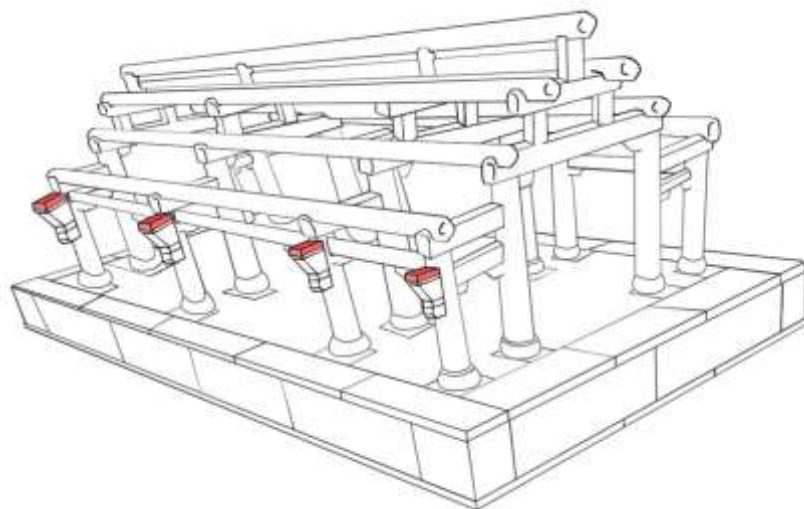
Often referred to as a crossbeam inserted horizontally on the corbel, the qinfang is the slanted wooden pole of the eaves column (Lin, 2023). It goes by the names Hengfang and Tiaofang in many areas,

or Qin depending on how it looks.

There was essentially no carving during the early Ming Dynasty, and the qinfang was only replaced with a horizontal bar. The designs, which mostly featured scrolls and antiques, were excessively basic. The sculpture evolved from crude and basic to intricate and refined during the Qing Dynasty. As the material grew increasingly rich, so did the variety of

qin, title pages, and flower gifts. The two sides of the qinfang were carved, and deep relief methods were frequently employed, particularly after the mid-Qing

Dynasty. The majority of the carved three-dimensional pictures were group portraits of people with exciting storylines. (Fig. 4-5)



*Figure 4-5:Qinfang.*

#### 4.3.2. Pattern of Qinfang

The qinfang is a highly ornamental building element with a lower load-bearing capacity found in the historic residential structures in the Dongyang area. It is important to note that the qinfang is a very striking ornamental element in public areas. The "three stops and nine similarities" design is one of the rarest decorative patterns found in the qinfang.



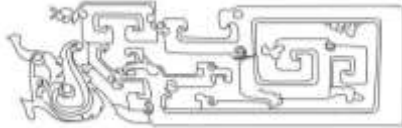

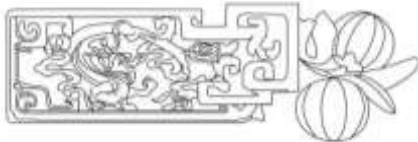
However, a collection of decorations known as the "three-claw cloud loong pattern" (Figures 4-6) was discovered in Li's home's Yiyi Hall. This pattern is comparatively uncommon.

In other locations, the qinfang is more frequently decorated as a frame structure, with Kuilong and Guaizilong patterns serving as the primary ornamental elements (Table 4-3). This type of ornamentation is quite logical and is succinct, straightforward, attractive, and simple.



*Figure 4-6 : "three-claw cloud loong pattern"Qinfang.*

Table 4-3: Dongyang Ancient Residential Buildings – Qinfang.

Location	Name	Photo	Pattern
Lu's Residence	Qinfang with Chiloong Pattern		
Yiyi Hall	Qinfang with Kuiloong Pattern		
Yiyi Hall	Qinfang with cloud loong pattern in the style of "three stops and nine similarities"		

#### 4.4. Corbel

##### 4.4.1. Position of the Corbel

In traditional Chinese residential constructions, the corbel is an essential architectural element that bears weight. They are situated at the building's eaves and are essential to the structure's overall stability. They also greatly influence the building's opulence and aesthetic appeal. The corbel has even come to represent a family's financial success to some

degree. As a result, wealthy families who are well-known and powerful in the community do not hesitate to invest in corbels.

The corbels are the most striking feature of the architectural embellishment since they were meticulously carved with intricate and beautiful designs. In addition to demonstrating the owner's riches and prestige, this type of ornamentation also demonstrates their admiration and respect for traditional architectural design. (Fig. 4-7)

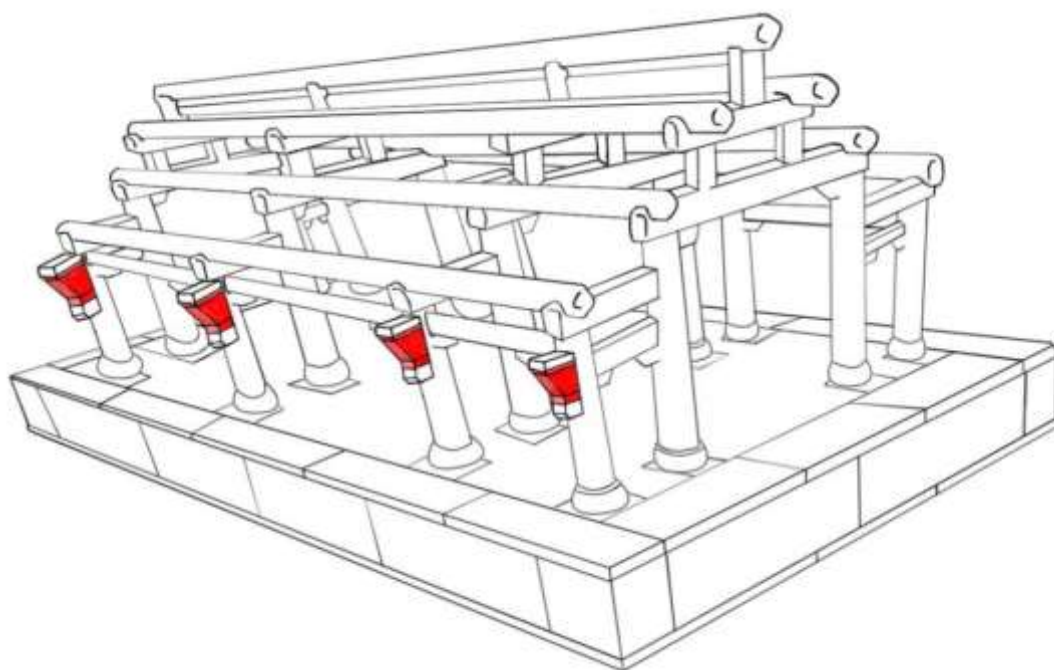


Figure 4-7: Corbel.


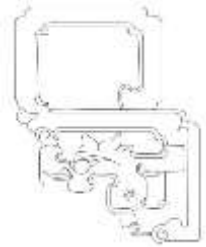

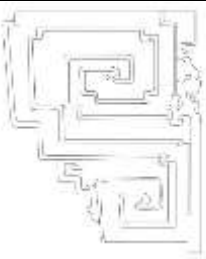





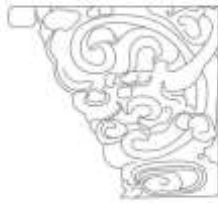
4.4.2. Pattern of Corbel

One of the most challenging, time-consuming, and superior roof ornamentation elements is the corbel. Characters from historical tales are the primary subject matter of corbel carving. To varied degrees, loongs adorn the majority of corbels. The corbel's location within the structure is highly noticeable. The corbel is the first item you see when you go into the courtyard. The loong pattern of the "three stops and nine similarities" style is rarely utilised in such a prominent location to prevent a breach of the hierarchy in ancient civilisation.

Primitive loong designs like the Kuiloong, Chiloon, and Guaizi loong patterns are used in the design and construction of the majority of them. (Table 4-4)

In general, the stories depicted in the carvings capture the social climate of the times as well as the values and beliefs of the carvers and the householder. Benevolence, righteousness, civility, intelligence, and reliability are the five basic tenets of Confucianism. But the primary topic of the loong-patterned carvings emphasises the householder's desire for "the most masculine and the most powerful" as well as his nostalgia for bygone eras.

Table 4-4: Dongyang Ancient Residential Buildings -Corbel.

Location	Name	Photo	Pattern
Fuyu Hall	Kuiloong pattern Corbel		
Yijing Hall	Guaizi Loong patterned Corbel		
Yiyi Hall	Caolong pattern and loong whisker pattern Corbel		
Yiyi Hall	Chi loong pattern Corbel		
Zunxing Hall	Corbel with Caolong pattern		

Bronze ware's composition methodology is carried over into the S-shaped composition method. The little sparrow brace is attached to the bottom portion of the corbel, while the qinfang is attached to the higher portion. The loong motifs are often made uniquely and are almost ever reproduced. For instance, Yiyi Hall's loong-whisker Corbel at Li's house (Figure 4-8) is adorned with Chiloong patterns on the tiny sparrow brace, Kuiloong patterns on the qinfang, and loong whisker patterns on the Corbel's main body. The three loong patterns are evenly spaced inside the same visual field, and the different shapes don't seem ornate; rather, they are elegant and simple.

The Corbels with Guaizi loong patterns used in

Li's house's Huatianmen (Figure 4-9) and the Corbels with Guaizi loong patterns used in the Yijing Hall of Mashangqiao (Figure 4-10), which use three pieces of the loong pattern design as an overall composition, are examples of instances where the qinfang, corbels, and small sparrow brace are designed and carved as a whole. The same loong pattern is used to embellish them. The design's skeleton perfectly complements the shape of the Guaizi loong motif. The area it frames can have a variety of patterns and narrative elements scattered throughout it. It's quite useful. A very powerful design aesthetic and a very strong retro texture of bronze ware are achieved by the geometric form of the Guaizi loong pattern running through all three sections.



Figure 4-8



Figure 4-9



Figure 4-10

## 4.5. Sparrow Brace

### 4.5.1. Position of Sparrow Brace

The definition of "sparrow brace" in the Illustrated Dictionary of Chinese Architecture is "a component placed on the top of a column to bear the upper

pressure together with the column." (Zhou and Chen, 2023) It was widely utilised and kept evolving in composition after the Ming Dynasty. Sparrow brace was an essential component of traditional architecture in early wooden structures, serving as both a load-bearing element and a decorative element. (Fig. 4-11).

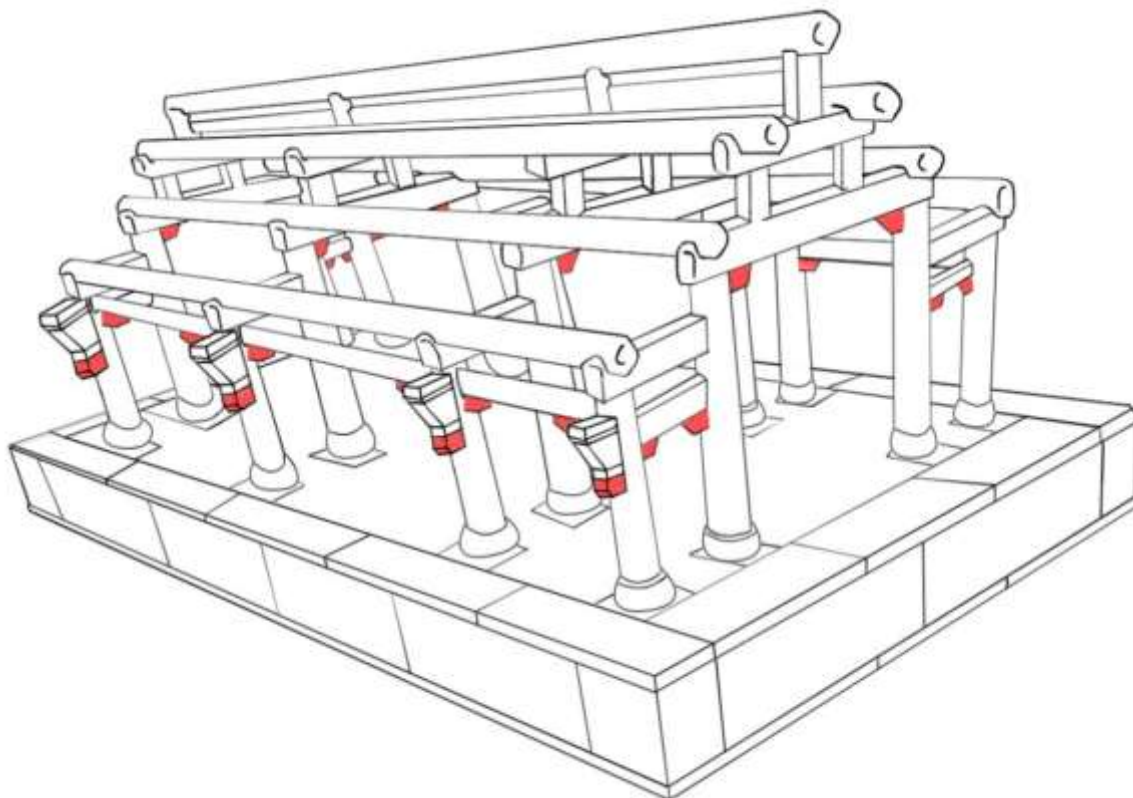


Figure 4-11: Sparrow Brace.





### 4.5.2. The Pattern of Sparrow Brace

With its vibrant architectural colours, exquisite and delicate architectural craftsmanship, and clever design, the Sparrow brace, a subtle element of traditional architecture that is frequently overlooked by the public, profoundly demonstrates the aesthetic essence and cultural heritage of traditional Chinese architecture. The Sparrow brace, a prominent architectural feature of a particular local culture, not only preserves historical memory but also eloquently captures the decorative art traits of a given era. This component has taken on additional forms in accordance with the various decorative purposes and architectural styles. (Table 4-6) (Zhang, 2019).

In old Dongyang homes, Sparrow braces depict a wide variety of subjects, such as flowers, birds, landscapes, characters, and tales. Chiloong, Caoloong, and Kuloong patterns are less frequently

employed than loong patterns, which are typically used as embellishments in little Sparrow braces beneath the main beams. Usually seen as the primary structural design in the form of structural skeletons, Kuloong and Gualoong patterns are frequently seen in Sparrow brace beneath the eaves and "Hua ya zi Gualo Sparrow brace". "Three Stops and Nine Similarities" loong pattern Sparrow brace is somewhat uncommon. There are a lot of Sparrow brace in buildings, and they are frequently made in the same style. They frequently show up in pairs. It takes a long time and is difficult to carve the loong-patterned Sparrow brace in the "Three Stops and Nine Similarities" technique. A collection of loong-patterned Sparrow braces in the "Three Stops and Nine Similarities" style was found by Shende Hall (Figure 4-12).

*Dongyang Ancient Residential Buildings - sparrow brace*

Location	Name	Photo	Introduce
Yiyi Hall	Small sparrow brace with double Chi loong pattern		The double Chilooong pattern little sparrow brace is more adaptable. The head, body, and tail are all in harmonious proportion, the body is twisting, and the lines are natural and smooth. The loong has a strong three-dimensional appearance thanks to the application of relief technology, which also highlights the exquisite and distinctive details of the traditional domestic architectural decorating of Dongyang. The harmony and orderliness of ancient Chinese aesthetics are reflected in the double Chilooong pattern little sparrow brace, which frequently uses the composition concept of symmetry and balance in design.
JiqinHall	Guaizi loong pattern with Huayazi Sparrow brace		The Guaiziloong design has a regular shape and is paired with the Huayazi Sparrow brace. It has a strong sense of geometry, with basic, clear lines and rounded, square turning points. It's possible that the intricate carving technique was employed to precisely and clearly illustrate each line and turning point of the Guaiziloong pattern, displaying an age-old, majestic, regular, and orderly artistic style that reflects the inventive use and legacy of traditional patterns in Dongyang's historic residential structures.
Wuben Hall	Cao loong pattern sparrow brace		The Caoloong pattern is easy to understand and fluid. Caoloong's body lines are organic and vibrant, resembling grass vines swaying in the breeze. It is assumed from the image that a straightforward carving technique is employed, creating a sophisticated yet straightforward contrast with the surrounding patterns of grass and flowers. It draws attention to the inherent beauty of the Caoloong pattern, providing viewers with a straightforward yet creative effect and demonstrating the variety of patterns used to decorate old residential structures in Dongyang.
Shijiazhuang Hall	Kuiloong pattern Huagong sparrow brace		The Kuiloong pattern Ancient animal traits are still present in the Huagong sparrow brace's Kuiloong pattern. The shape is comparatively simple and rudimentary, and the body is substantial and strong. The flower arch is displayed in this straightforward form using the circular carving technique, showcasing the rich cultural legacy of Dongyang's historic residential architecture and representing the legacy of historical culture through traditional architectural adornment.




<p>Derun Hall</p>	<p>Guaiziloong pattern sparrow brace</p>		<p>Deruntang sparrow brace in the Guaiziloong design. It is clear from the image that the Guaiziloong design is geometric in shape. It has clean, well-organised lines that constrain one another to create a distinctive design. A distinctive design aesthetic is presented on the sparrow brace by the Guaiziloong pattern, which serves as the primary framework and is dotted with patterns of flowers and birds for adornment. In addition to being incredibly useful, this geometric shape may be dotted with a range of patterns and narrative themes within its frame space, demonstrating the brilliant idea and exceptional design abilities of Dongyang's historic residential architectural embellishment.</p>
<p>Yiyi Hall</p>	<p>Guaiziloong pattern Huayazi Guailuo Sparrow brace (picture) also known as Jiatang flower board</p>		<p>The design of Guaiziloong In the image, the Guaiziloong pattern serves as the primary structural design for the Huayazi Guailuo Sparrow brace in Yiyi Hall, which uses the axial symmetry approach. In addition to reflecting the high degree of cultural thought and distinctive aesthetic pursuit of Dongyang ancient residential architectural decoration, its strong lines, round and square turning points, and regular and rhythmic shape fully illustrate the Chinese philosophical idea of outer circle and inner square.</p>
			

Figure 4-12

This should clearly explain the main conclusions of the article, highlighting its importance and relevance. This section is not mandatory but can be

added to the manuscript if the discussion is unusually long or complex.

## 5. ANALYSIS OF LOONG PATTERN DECORATION ART

### 5.1 *Artistic Features of Loong Patterns in Dongyang Ancient Residences*

The loong patterns in the wood carvings of Dongyang's ancient houses have a strong retro atmosphere. Influenced by the Song and Yuan Dynasties' retro-styled thinking, the Kuiloong and Chiloong patterns' morphological design in the early Ming Dynasty clearly mimicked the styles of the Warring States and Han Dynasties. It also kept many of the basic animal forms that were highly favoured by scholars and literati. However, the Kuiloong and Chiloong patterns gradually transcended their simple decorative function and became an important carrier of multiple ideologies such as etiquette, aesthetics, education, and auspicious meanings due to the profound changes in the social system that occurred after the mid-Ming Dynasty. These changes included the prosperity of the imperial examination system and the significant differences in lifestyle.

Since then, the loong patterns' ideological significance has grown to a level that even surpasses their physical forms. This, in turn, has led to the diverse evolution of loong patterns, with the animal features gradually fading and the sense of three dimensions weakening, and their clever integration with other auspicious patterns creating a new and auspicious pattern combination.

The Chiloong pattern's physical shape and the ideology it embodied carried over from the Ming Dynasty into the Qing Dynasty, but there were also significant alterations. Specifically, the Chiloong pattern's decorative use on Qing Dynasty furniture reached a previously unheard-of level, and its widespread application was impressive. This decorative pattern progressively displayed more stylised qualities as craftsmanship became more sophisticated, exhibiting both intricate and beautiful items in form as well as basic and polished works, creating a clear polarisation phenomena.

### 5.2. *The Aesthetic Value of Loong Pattern Decoration*

Since the Song Dynasty, due to the influence of the retro trend, the Chiloong pattern began to appear in large numbers on Song Dynasty porcelain. The reasons why the Chiloong pattern developed in the Ming and Qing dynasties are as follows:

Imperial authority was greatly concentrated and control over the loong pattern was reinforced since the Ming Dynasty's Hongwu period. Wars during the late Ming and early Qing dynasties caused the

rule to loosen. The Qing royal family virtually controlled the loong pattern's design, literary meaning, and aesthetic value until the emergence of literary inquisition during the Qianlong period of the Qing Dynasty. It came to represent the ruler's prestige and authority. As a result, loong patterns, such the Kuiloong and Chiloong patterns, were able to evolve quickly.

For instance, a sizable portion of the Guaiziloong design is used to embellish the boat pavilion in Mashangqiao's Yijing Hall. (Fig. 5-1) The lines are stiff and erect with rounded corners at the turning points, and the geometric shapes that are always bending and shifting demonstrate the overall symmetry and formal elegance of the Guaiziloong pattern, which serves as the primary adornment.



*Figure 5-1.*

In the same manner, a sizable section of the Huang pattern is used to embellish the Chuanpeng Pavilion in the Shijiazhuang flower hall (Figure 5-2). Although there are minor distinctions, the Hui and Guaiziloong patterns are fairly similar. The Lei pattern on ceramic and metal objects is the source of the Hui pattern. The Guaiziloong pattern is derived from the Kuiloong pattern and is not end connected, however in design it is connected from start to finish to create a closed area.



*Figure 5-2*

## 6. THE CULTURAL AND SOCIAL SIGNIFICANCE OF LOONG PATTERN DECORATION

### 6.1. *The Cultural and Social Significance of Loong Pattern Decoration in Dongyang Ancient Dwellings*

Loong patterns have a long history in Chinese history and culture, and their use in old Dongyang homes is a continuation of this long-standing cultural aspect, which accounts for its cultural value. It reflected the inheritance and evolution of loong patterns in various historical periods, carrying the cultural memory of each era. From the Ming Dynasty, which was influenced by the Song and Yuan Dynasties' retro trend, Kuiloong and Chiloong patterns mimicked the styles of the Warring States and Han Dynasties, to the Qing Dynasty, when Chiloong patterns were widely used on furniture and continued some Ming Dynasty traditions.

During their evolution, the loong patterns in Dongyang's old homes were ingeniously combined with other fortunate motifs. As an illustration of the diverse integration of cultures, the animal features of the Kuiloong and Chiloong patterns gradually disappeared after the mid-Ming Dynasty. Together with other auspicious patterns, they created a novel pattern combination rich in auspicious meanings, forming a residential architectural system with distinctive Confucian cultural characteristics. The local craft traditions and aesthetics are also reflected in their use and interpretation of loong patterns.

The rigid social order is reflected in the social significance. The loong has rigid hierarchical constraints and is a symbol of the royal family. The hierarchy's restrictions also apply to the use of loong designs in Dongyang's historic homes.

The hierarchy also limited the usage of loong designs in old Dongyang homes. For instance, Jiangnan folk house wood carvings from the early Qianlong period hardly ever used the "Three Stops and Nine Similarities" loong pattern pictures. More abstract loong designs did not start to show up on Jiangnan folk house wood carvings until the Jiaqing period, when the Qing court's authority waned. Primitive loong patterns like the Kuiloong, Chiloong, and Guaiziloong patterns were primarily used for design and construction, while the "Three Stops and Nine Similarities" style loong pattern was rarely used in architectural components like corbels and sparrow braces to avoid violating the hierarchy.

The disparities in socioeconomic classes are also reflected in it. For instance, the usage of loong designs and the intricate carvings on the corbels

illustrate the disparities in socioeconomic strata. Wealthy families will devote a great deal of time and money to carving intricate and beautiful designs on the corbels, and the choice and application of loong patterns are also more advanced, reflecting the variations in architectural ornamentation and the ways in which various social classes express their social standing.

### 6.2. *Loong Pattern Decoration Reflects The Social Form And The Ideals And Beliefs Of The Householder At That Time*

Confucian culture had a significant influence on the Ming and Qing dynasties. In the carved theme stories of Dongyang woodcarvings, the Confucian concepts of "benevolence, righteousness, courtesy, wisdom, and trustworthiness" are evident.

The owner's quest for "the most masculine and the most powerful" and his desire for retro culture are further highlighted by the carving theme with loong patterns as the main body, which reflects the influence of the prevailing ideas and values of the society at the time on architectural decoration.

The belief that "everything is inferior, only reading is superior" had a profound impact on society throughout the Ming and Qing Dynasties, and there was a fierce drive for social standing and power. This quest is reflected in the adoption of loong designs as a power symbol in architectural ornamentation. Due to early class constraints, the "Three Stops and Nine Similarities" loong motif was uncommon in Dongyang's ancient homes. According to current field research, a few "Three Stops and Nine Similarities" loong patterns first surfaced in some secret areas as early as the middle of the Ming Dynasty. These patterns may be an indirect reflection of the people's desire for dominance at that era.

Following the reign of Emperor Jiaqing of the Qing Dynasty, there was an upsurge in abstract loong motifs. To show off their wealth and ambition for status and power, wealthy households meticulously carved loong designs on construction elements like corbels. Decorating with loong patterns became a means of expressing the desire for social standing and power. Through evolution, the loong design was combined with other auspicious patterns to create a pattern combination full of auspicious connotations. This pattern combination encapsulates the expectations and general psychology of the general public and expresses people's desire and pursuit of a better life.

## 7. CONCLUSION

Its form progression has gone through several

stages in terms of creative qualities. Influenced by the retro trend, the Kuilong and Chiloong patterns mimicked the styles of the Warring States Period and the Han Dynasty in the early Ming Dynasty while maintaining the ancient animal form; however, after the mid-Ming Dynasty, the animal characteristics gradually disappeared and blended with other auspicious patterns, resulting in a diversified form; The Chiloong pattern was popular during the Qing Dynasty and demonstrated polarisation through both intricate and beautiful products as well as simple and elegant works. From an aesthetic perspective, different dynasties had an impact on loong pattern. Many Chiloong motifs emerged as a result of the Song Dynasty's nostalgic aesthetic. The imperial authority dominated loong pattern during the Ming and Qing Dynasties. Guaiziloong pattern decoration is extensively used and has symmetrical and formal elegance. It differs and is related to Hui pattern and other designs.

The inheritance and evolution of many historical periods are evident from the Ming Dynasty, which

was affected by the Song and Yuan Dynasties' retro trend, to the Qing Dynasty, when the Chiloong pattern was widely utilised and carried on some Ming Dynasty traditions. Second, it is combined with other fortunate patterns, which demonstrate the openness of regional cultural aesthetics and the growth of craft traditions, as well as cultural diversity and integration.

It accurately depicts the social order. The original loong pattern is typically utilised in architectural components, and the "three stops and nine similarities" type loong pattern is rarely utilised to avoid violating the hierarchy. It also illustrates the disparities between socioeconomic classes. For instance, the intricacy of the loong patterns and the carving of the corbels can reveal a family's social standing and financial prosperity.

The primary body of the carving subject, which reflects Confucianism, features loong designs that emphasise the owner's quest for rank and power as well as people's desire for a better life.

## REFERENCES

- Chen, J., Zhou, Y., Hu, M., & Yan, H. (2023). Research on the sparrow brace replacement decorative art in Hui-style architecture. *Beauty and Era (Urban Edition)*, 05, 34–36.
- Chen, W., & Zhang, H. (2021). A brief analysis of the digitalization of large-scale wood carving art on mobile terminals – Taking Dongyang Antai ancient residence as an example. *Architecture and Culture*, 05, 263–265. <https://doi.org/10.19875/j.cnki.jzywh.2021.05.102>
- Chen, Y. (2023). Sacrificial place characters in "Shuowen Jiezi · Mianbu" and ancient sacrificial culture. *Journal of Luohe Vocational and Technical College*, 05, 6–11.
- Dongyang Municipal People's Government. (n.d.). Natural geography. Retrieved July 28, 2024, from <http://www.dongyang.gov.cn>
- Gu, L. (2024). Research on the scholar-paintings in the wood carvings of Jiangnan residential buildings during the Qing Dynasty. *Journal of Suihua University*, 06, 84–86.
- Hu, J. (2019). The inheritance and development of Wu culture in the traditional residential architecture art of central Zhejiang. *Regional Governance*, 33, 231–234.
- Hu, Y. (2023). Research on the spatial climate construction of the residential samples of "Shí Sān Jiān Tóu" in Dongyang (Master's thesis, Southeast University). <https://doi.org/10.27014/d.cnki.gdnau.2023.003471>
- Hu, Z. (2024). Dongyang Lu's Village: Made by humans, as if by nature. *Zhejiang Pictorial*, 06, 66–71.
- Jiang, L. (2023). A brief discussion on Shangshan culture and Shangshan cultural sites. *Archaeological Research*, 01, 116–133.
- Jiang, Q. (2024). Research on the protection of the ancient residential buildings of Lu's residence in Dongyang. *Cultural Relics Appraisal and Appreciation*, 09, 60–63. <https://doi.org/10.20005/j.cnki.issn.1674-8697.2024.09.015>
- Jin, H. (2024). Interpretation and wood carving appreciation of Mǎshàngqiáo Huà Tīng. *Cultural Relics Appraisal and Appreciation*, 10, 6–9. <https://doi.org/10.20005/j.cnki.issn.1674-8697.2024.10.002>
- Lin, T. (2023). Research on the characteristics and regional system of traditional residences in northern Zhejiang (Master's thesis, Beijing University of Civil Engineering and Architecture). <https://doi.org/10.26943/d.cnki.gbjzc.2023.000644>
- Liu, G. (2024). Research on the art of textual carving in traditional residences of Jinhua during the Ming and Qing Dynasties. *Shanxi Architecture*, 03, 14–17+63. <https://doi.org/10.13719/j.cnki.1009-6825.2024.03.004>

- Liu, W. (2023). The development and evolution of loong patterns in ceramic art decoration. *Ceramic Research*, 05, 162–164. <https://doi.org/10.16649/j.cnki.36-1136/tq.2023.05.024>
- National Museum of China. (n.d.). Retrieved from [https://www.chnmuseum.cn/zp/zpml/kgfjp/202111/t20211116\\_252317.shtml](https://www.chnmuseum.cn/zp/zpml/kgfjp/202111/t20211116_252317.shtml)
- Wang, N., & Xu, J. (2024). The production of traditional village tourism cultural space: A case study of Tangyue Village in Anhui Province. *Journal of Shanxi Normal University (Natural Science Edition)*, 01, 112–119. <https://doi.org/10.16207/j.cnki.1009-4490.2024.01.015>
- Wu, Y. (2023). "Solidified drama stage" – Analysis of the architectural art and wood carving value of Xia Cheng Li Shen De Hall in Dongyang. *Architecture and Culture*, 11, 261–263. <https://doi.org/10.19875/j.cnki.jzywh.2023.11.083>
- Ye, J. (2018). Research on the spatial layout and decorative art form of Dongyang ancient residences – Taking Zhejiang Dongyang Derun Hall as an example. *Cultural Relics Appraisal and Appreciation*, 04, 66–69.
- Yu, J., & Yu, X. (2013). Preliminary exploration of the cultural factors influencing the formation of Dongzuo furniture. *Furniture and Interior Decoration*, 12, 33–35. <https://doi.org/10.16771/j.cnki.cn43-1247/ts.2013.12.013>
- Zhang, L. (2014). The influence of Confucianism on the vernacular architecture of western Zhejiang (Doctoral dissertation, Tsinghua University).
- Zhang, W. (2019). Reproductive culture in wood carving decorations in the Jiangsu and Zhejiang regions during the Ming and Qing Dynasties. *Cultural Review*, 11, 66–69.
- Zhang, W. (2019). Research on the decorative art of wood carvings during the Ming and Qing Dynasties in Dongyang. Shanghai Jiao Tong University Press. ISBN 978-7-313-18309-5.
- Zhao, C. (2021). Research on the protection and development of Dongyang Lu's residence from a regional perspective. *Rural Economy and Science and Technology*, 19, 282–283.
- Zhu, J. (2010). The current situation and protection of Ming Dynasty wood carvings in Dongyang, Zhejiang. *Journal of Zhejiang Art Vocational College*, 04, 107–113. <https://doi.org/10.15965/j.cnki.zjys.2010.04.020>
- Zhu, X., Fu, Y., Zhang, Y., & Han, N. (2024). Research on auspicious plant decorations in traditional Chinese architecture – Taking Nanjing Zhanyuan as an example. *China Building Decoration*, 16, 145–147.