

# Application and Research of Fujian Tulou Culture Kernel in Contemporary Space Design

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## Abstract

**Fujian Tulou is one of the most bizarre treasures in traditional Chinese dwellings. It exists in the world and shines brightly. This article leads to the main text by introducing the background of Fujian tulou, and makes a general interpretation of the origin and historical background of why Fujian tulou appeared, and then draws a conclusion. Summarize the peculiarities of tulou from the architecture of Fujian tulou, and then explain why the peculiar morphological phenomenon of Fujian tulou came into being from its historical and cultural connotation. Then analyze the contemporary modern works with the spirit of Tulou culture - Tulou Commune. Summarize the spiritual and cultural essence and design experience value that can be used for reference in contemporary design works.**

## Keywords

**Fujian Tulou; Traditional cultural connotation; Tulou Commune community housing.**

## 1. Introduction

Most of the tulou sites are located in Fujian and Guangdong provinces. The more famous ones belong to the three cities of Longyan, Zhangzhou and Quanzhou in Fujian Province. There are the largest, most complete and well-preserved tulou groups in existence. Fujian Tulou has been standing for thousands of years, and its unique cultural, historical and artistic value is known as "a bright pearl of oriental civilization" and "a wonderful flower in the history of art architecture". In recent years, more and more experts and scholars have come to investigate and study Fujian tulou, and the information recorded in the literature has become more and more comprehensive. The tourism culture of Fujian tulou has also flourished, which represents the symbol of oriental culture, Hakka culture and tulou culture. What is the peculiarity and cultural spirit of the strange architecture "Fujian Tulou"? What is the origin of the peculiar architectural form of Tulou? How does our contemporary design get empirical value today? This article will discuss the origin culture, architectural form, and Chinese traditional core culture.

## 2. The Origin Culture of Fujian Tulou

During the An-Shi Rebellion that occurred in the Tang Dynasty, the war-torn people in the northern region were struggling to survive, and batches of people migrated to the south to escape the war. After the Jingkang disaster in the Northern Song Dynasty, many residents moved south with the royal family. The Southern Song Dynasty was suppressed by the Yuan Dynasty and kept retreating to the south. During this period, many Han nobles also followed, and some of them settled in Fujian Province. Through these large-scale population migrations to the south, these people traveled to many places and entered the mountainous areas of southwestern Fujian via Jiangxi to avoid disasters. These people from the Central Plains who moved southwards gradually formed a foreign culture, and they were called foreign families. In the mid-Ming Dynasty, the enemy invaded, and Fujian was a coastal area. At this time, there

were conflicts between local residents. The foreign tribes who were born in troubled times could only unite to defend their homeland. They used wisdom and solidarity to create an unprecedented building, the Fujian Tulou, a building that can both meet the needs of large families to live together and defend at the same time.

According to the records of the genealogy, the tulou took shape in the Tang and Song dynasties, and there were similar tulou buildings in the Yuan Dynasty. Under the requirements of the defense function of the people in the Central Plains, the tulou continued to develop and mature. Fujian Tulou originated in the Tang and Song Dynasties and developed in the Ming and Qing Dynasties. Generations of children and grandchildren have lived in a tulou, forming an independent world, coexisting with prosperity and humiliation.

### **3. Analyzing the Cultural Connotation from the Appearance of the Building**

#### **3.1. Natural Growth**

Due to the special historical background and environment, foreigners created the tulou. Its beauty lies in its unique structure inside and outside, and the state it presents in line with the overall natural environment. Fujian Tulou is organically integrated with the natural environment, born in nature, creating an ecological environment that grows with nature, and also creating a beautiful scenery.

The satellite cloud image overlooks the Fujian Tulou tribe. The large and small square-shaped houses are located in the cracks of the mountains. In terms of the overall settlement layout, whether it is the Tulou tribes in western Fujian or southern Fujian, their sites are far away from the city. In the central forest surrounded by mountains and shaded by mountains, it grows naturally with water as the vein. From the selection of construction technology and materials, gray bricks and blue tiles are used as roofs, loess is used as the main wall material, and loess, fir, bamboo, and stone are used as the basic materials. Their construction is based on the traditional rammed earth construction technology, and they are transformed to build a solid earthen fort with special craftsmanship and wonderful techniques. This is also the reason why the tulou has been well preserved after several generations of wind and rain.

#### **3.2. Centripetal Surrounding**

Since ancient times, human beings have the habit of pursuing a sense of belonging and domain and taking the "center" as their physical and mental destination. The same is true for the construction of traditional Chinese dwellings, pursuing the construction of centripetal space, finding the center in space, and then growing and building around.

From the perspective of the construction of the tulou, the space setting of the ancestral hall and the ancestral hall fully reflects the centrality of the tulou. Whether it is a square building, a round building, or an earth building mainly in the shape of a half moon, the architectural form that surrounds the ancestral hall in a circle, reflects the characteristics of growing around the center. Huaiyuan Building is the most conspicuous tulou in the form of centripetal encircling. This building is a round building with an inner corridor. It is in the form of two concentric circles in plan. The outer ring building is a four-story residential area, and the middle area of the two concentric rings is the remaining space for leisure activities. The most gorgeous earth building is Yongkang Building. The ring building has a diameter of 36 meters and is three stories high. Each floor has 26 bays. The ancestral hall in the center of the building is a square hall. In the end, the tulou forms a circle with a square in it.

Whether it is the tallest tulou, the most gorgeous or the smallest, there is an ancestral hall in the center. This is not only a kind of centrality presented by the shape of the building itself, but also the holy land of the people who live in Fujian Tulou.

### 3.3. Still Symmetrical

In our design, the symmetrical aesthetics of space is applied to our design works. This creative method will make the design works more aesthetic. The most important thing in our ancient Chinese architectural works is the expression of the beauty of the main axis. The construction of the tulou brings China's symmetrical aesthetics into full play.

There are three main types of external forms of Fujian tulou, namely round building, square building, Wufeng building, and many deformed tulou. Represented by Dave Building, there are three halls and two rows of "horizontal houses", but behind the middle hall of Wufeng Building is not a "back hall" of the same height, but a three- or four-story residential building. The three halls refer to the upper hall, the middle hall and the back hall with the axis as the center line. The lower hall is the center, the connecting two sides are wing rooms, the center of the middle hall is the main hall, which is mainly the ancestral hall for worship, with the living room or study on both sides, and the back hall is the main tower, which is the residence of the highest leader of the family. The two horizontal lines refer to the houses on both sides, which are respectively formed by splicing three basic units with the same plane form in the longitudinal direction.

Whether it is a square, round earth building or Wufeng building, they all surround a center that is the ancestral hall. Taking the ancestral hall as the center, the central axis is drawn, and the layout is neat and symmetrical. The arrangement of the interior halls of the tulou, the configuration of the bedrooms, the distribution of the stairs, and the opening of the side doors are strictly symmetrical, giving people a sense of balance and stability. The seriousness, squareness, and orderliness displayed by the strictly symmetrical building group is the expression of the traditional Chinese ethical order in Fujian Tulou architecture. This sense of symmetry in the traditional Chinese ritual system is also better explained in the architecture of Fujian Tulou.

## 4. Analyzing the Cultural Core of Tulou from the Perspective of Traditional Culture

Generally speaking, tulou is the product of specific historical conditions and specific natural and human environment. It was developed and perfected on the basis of the need for self-protection due to wars and disputes, the invasion of Japanese pirates and ethnic conflicts. In the social and natural environment at that time, what is the origin of such a strange and beautiful tulou? That is the penetration and influence of Confucian thought and culture, and only then can a building with both regional cultural characteristics and traditional architectural cultural aesthetics be constructed.

In the history of ancient Chinese thought and culture, Confucianism, through the origin and development of Confucius and the continuous improvement of descendants, has formed the most important school of thought and philosophy in my country, shaping the cultural psychology and characteristics of the Chinese nation. As a necessary element of people's daily life, architecture is bound to be influenced by social ideology and culture in its formation and development, and Confucianism will certainly have a profound and lasting influence on ancient Chinese architectural culture.

The core thought of Confucianism is benevolence, propriety, moderation, and the way of harmony between man and nature. Treat people and things with sincerity, take the middle way, and be respectful and orderly. The traditional Chinese nuclear Confucian culture is basically a ritual system, which affects social order and hierarchy. At the same time, the core of Confucianism is also reflected in the construction and layout of the tulou.

#### 4.1. The Unity of Man and Nature - A Reasonable View of Nature

Philosophers of the past dynasties have different interpretations of "harmony between man and nature", but "harmony between man and nature" represents the harmony between man and nature. one. Dong Zhongshu records that: the unity of nature and man is one. It refers to the unity of Heaven and Humanity in Confucianism, which is the essence of Confucianism. The Tao of Heaven refers to the phenomena and laws of change that are common in nature. Humanity refers to the social principles that human beings should abide by. Confucianism believes that it is not only necessary to achieve harmony within society, but also to adapt to nature. The concept of the unity of man and nature in Confucianism also has a far-reaching influence on the construction culture of Chinese architecture, emphasizing that man and nature, man and architecture, architecture and nature, are in a harmonious and organic whole. The organic integration of architecture and nature, which is taken from nature and integrated into nature. The architectural organic view of tulou is also reflected in the following aspects:

Go with nature. Japanese scholars commented on Chinese tulou architecture in this way, like a huge mushroom blooming on the ground, and like a black flying saucer falling from the sky. In Chuxi Village, Yongding County, the construction of the tulou in the whole village is built facing the north. Due to the water flow and the orientation of the mountains, although it violates the traditional Chinese geomantic feng shui of sitting north and facing the south, it also confirms the traditional concept that the construction of tulou conforms to nature.

Learn from nature. Taking nature as a teacher to follow the example, the window, pavilion, pavilion, etc., through which the beauty of nature passes, is introduced into the building, that is, the method of "borrowing scenery". The tulou did not introduce windows, pavilions and other structures for defense reasons, but borrowed skylight through the square and round building plane shapes to form natural lighting.

#### 4.2. The Doctrine of the Mean - Aesthetics of Impartiality

The core of the Doctrine of the Mean explained by the Confucian school is that the middle is the center, and the middle is the way. Harmony and unity, emphasizing the philosophical concept of moderation and impartiality of life ethics. The Confucian school believes that all things possessed by human beings cannot have extreme states, and should follow the principle of the mean of all things, so that human beings and all things can coexist and achieve the beauty of harmony. This is what is shown in the tulou architecture:

Symmetrical aesthetics. The Confucian Doctrine of the Mean affects the central axis and symmetrical aesthetics, and at the same time has a certain influence on the traditional house layout, urban construction and interior design, forming an orderly symmetrical layout. The square building shape of the tulou, the round building shape, or the plane design of the Wufeng Building all appear in a symmetrical form.

Central axis aesthetics. Our traditional urban planning has a strict central axis standard system, which represents the symbol of the centralized cultural thought, the traditional Chinese ritual culture, and the superb construction concept and planning level. The Wufeng Building in the Tulou has three halls and two horizontal lines, and the setting of the upper hall, the middle hall and the lower hall among the three halls creates the design feature of the Wufeng Building with the three halls as the central axis. The rest of the space is designed in turn with the central axis as the axis.

#### 4.3. Benevolence and Propriety - The Care of Human Nature

The core idea of Confucian Chinese tradition is the word benevolence and righteousness. This cultural idea affects the life order of ancient society and has the most important significance for today's era. The benevolence of Confucian culture is to implement benevolent governance with the heart of loving people, and to coordinate the society with the basis of benevolence, that is,

with the basis of people. Ritual is the foundation of governing a country in ancient times. Ritual is the relationship between human relations and the criterion for distinguishing true from false. There is a clear ritual system ranging from politics to small furnishings. The righteousness of benevolence and propriety is a set of hierarchical thoughts and systems, which constrain social ethics and people's lives.

The centripetality of space, the pursuit of the construction of the tulou, achieves unity and harmony at the same time as "centripetal cohesion". Influenced by the Confucian thought of benevolence and propriety, the architecture of Tulou clearly reflects family cohesion from the most primitive structure. For the needs of defense, the whole family must have strong affinity and cohesion, so they must live together like a clan, hundreds of people live under a large roof, surrounded by a huge centripetal closed shape, with tall soil Walls are built. Hundreds of people in the tulou lived together under a large roof, surrounded by a huge centripetal closed shape with earthen walls. The ancestral hall in the center of the tulou is not only a kind of centripetalism presented by the building itself, but also a kind of family repayment of benevolence and courtesy, more like a kind of reverence for the ancestors.

people oriented. In the tulou, generations of people with the same root and the same origin are all equal, and the size and spatial pattern of each room are equal. This also demonstrates the Confucian sense of benevolence and propriety to a certain extent, governing the clan with propriety, and redefines the new concept of living together with clans.

## 5. Analysis and Inspiration of Modern Cases - Tulou Commune

Tulou Commune - Vanke Tulou Project is the first collective residence developed by Urban Practice for low-income earners. This building is located in Nanhai District, a suburb of Guangzhou. The Tulou Commune covers an area of 9,000 square meters, with a construction area of 11,300 square meters and a total of 287 residential units. It is a super-aggregate residence that can accommodate 1,800 people. The design prototype and inspiration of the Tulou Commune come from the Hakka Tulou in Fujian, and a new design interpretation is used from the outside to the inside.

### 5.1. Integration of Historical and Cultural Traditions

From the perspective of historical and cultural traditions, it is worth pondering the protection and transformation of traditional Chinese dwellings. From the Hakka tulou group to the modern tulou commune, the symbolic concept and implication are the design works of contemporary society that can be used for reference and transformation. For example, the legacy of Confucianism and culture embodied in the tulou, the culture of the tulou family's concept of patriarchal order, and the traditional cultural heritage of living together in a group are used in the design of their own works, making the design works more cultural and sustainable. Traditional historical culture is the source of soul of all design works, and the inheritance and development of historical culture needs to be used more flexibly in contemporary society. Take the essence and get rid of the dross. Combined with the social characteristics, forms of expression and economic conditions of modern design, it absorbs the essence of traditional tulou's spatial layout and cultural background, and integrates it into contemporary design. Make contemporary design works more lively, more national, regional and sustainable.

From the perspective of the integration of the historical and cultural traditions of the construction of the Tulou Commune, innovation has emerged on the basis of inheriting the prototype Fujian Tulou. The square and circular features of Fujian Tulou were adopted in the construction of the building plane. The center did not build an ancestral hall representing the clan culture, such a traditional image space, but made changes on this basis. In the central part of the main building with a round shape, a unit building with a square plan is constructed. There

is a shared space on each floor of the central part, which is also in line with the centripetal characteristics of Fujian Tulou. At the same time, it embodies the centripetal culture with benevolence as the core in the Confucian school. The super-large collective housing of the Tulou Commune continues the cultural characteristics of traditional clan living, but it is not a complete clan living. This is also different from the construction of tulou.

## 5.2. Integration of Ecological and Humanistic Concepts

In traditional culture, it is the soul of Chinese traditional culture to pay attention to the harmony and unity of nature and people. In the process of modern design, it is necessary to comprehensively consider the connection between the regional environment and architecture, and pay more attention to the respect for "people" and the care for "people". Starting from humanity, the idea of serving "people" is the basic symbol and characteristic of traditional Chinese architectural culture. From the perspective of ecology and humanity, the entire architectural design of the tulou follows the concept of harmony between man and nature and growing with nature. The ecological design integrates human needs and nature, and promotes a state of harmonious coexistence between man and nature.

The building materials for the faade of the Tulou Commune are simple four-grid hollow stone bricks, and each ring also has wooden fence gates at different intervals for simple decoration. The overall color matching of the tulou is only wood color, white, and blue-gray. The color matching is simple and atmospheric, there is no jumping color, and it is integrated with the surrounding environment, but the huge building and simple wood color decoration make it appear. Unique style. The combination of building materials and colors used by the Tulou Commune, this design also continues the Fujian Tulou's rational view of nature, which is the unity of nature and man, and the coexistence with nature. On this basis, innovative features have been made. Simple color block features embellishment, unique and unobtrusive. The ecological concept is integrated into the modern design, and the humanistic temperament of traditional Chinese architecture is integrated, either elegant or simple, to achieve harmony between people, architecture, environment, craftsmanship and materials, reflecting the unique humanistic and ecological beauty.

## 5.3. The Concept of Sharing, Co-construction and Co-governance

From the perspective of symbiosis, co-construction, sharing and co-protection, our contemporary living model, our city is full of high-rise buildings, but the independence between buildings is indifferent and thought-provoking. People are busy shuttling in the city, and it is impossible to talk about the harmony between neighbors. Based on such a social background, the concept of congregation conveyed by the tulou, the protection of the clan to their own community, the co-construction and sharing, and even the traditional way of living together are more worthy of being learned and carried forward.

The living space of each unit in the Tulou Commune is small but fully functional. The public space is equipped with canteens, supermarkets, libraries, shops, sports rooms, basketball courts and so on. The rich public shared space brings a rich sense of business activities and interpersonal atmosphere among the neighbors. The shared space of the tulou inherits the characteristics of the super-large residences of the tulou in Fujian, and continues the beautiful residential concept of symbiosis, coexistence and sharing. It not only shares the space but also considers the combination, partition and connection between the units in the modern community, and creates a design that adapts to the contemporary social background. living space.

## 6. Summary

From the design of Hakka tulou, under the special historical background where it is located, the architectural form of the tulou is shocking in terms of its layout and technical materials. From the square and circular plane layout, to the symmetrical design form with the central axis, to the introverted centrality of its functional layout, it is all drawn for thought. For the traditional form it expresses, the unique grandeur and greatness of the architecture it expresses, and the architectural wisdom it represents at that time, it is astounding at that time. Academics call it a wonderful flower of traditional Chinese dwellings, and it deserves it. It is worth thinking about by designers today.

## References

- [1] YouBin Hou: Chinese Architectural Aesthetics (china tourism press 2021).
- [2] XiaoLiang Chen: On the influence of Confucianism on Chinese ancient architecture (MS., Chengdu University of Technology, China 2007), p.8.
- [3] HanMing Huang: fu jian tu lou(Life, Reading, New Knowledge Sanlian Bookstore Press2009).
- [4] MaoMing: New research on the origin time and region of tulou, Wenbo journal. (2018) No.2, p.98-105.