

## HEAVEN AND EARTH IN TULOU DESIGN

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**Abstract:** Because of significant missing links between ancient and modern Han culture, it is often very useful to look into areas of Hakka culture to understand how the ancient Chinese lived. This is abundantly true in the area of linguistics, and lately the area of architecture has yielded much evidence that modern Hakka culture of the south flows from the ancient stream of the north. The genius of the Hakka is best seen in the unique roundhouses of the mountainous borderland of three provinces – Guangdong, Fujian and Jiangxi. However, in completing the fourth of five migrations, the Hakka returned to the traditional building styles of the northern plains of China and built Wufenglou on the plains of southern Guangdong province. In this paper the author presents a story of evolution of Hakka dwellings revealing how the Tulou design has reflected Hakka culture rooted in the central plains of the Yellow River region.

**Keywords:** Tulou, earth buildings, round houses, weilonglou, wufenglou

### 1 INTRODUCTION

There are mainly three types of tulou or rammed-earth clan residences built by the Hakka, i.e. in the shape of a circle (yuanlou), of an oval (weilonglou), and of a square (wufenglou) (Figure 1).

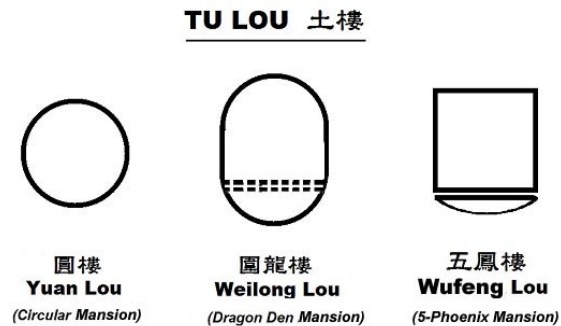


Figure 1: Three types of Tulou - round, oval, square

The author utilizes this simplistic typology frankly to fit his huaquiao notions of Chinese/Hakka culture, and also to fit his personal history as a descendant of the Luo clan which built the Dunshang weilonglou and the Crane Lake wufenglou. Thus, his approach presented in this paper is personal and speculative; likely to raise more questions than answers.

The term “tulou” almost always evokes the classical roundhouses which abound in the mountainous region of northwestern Fujian province, especially tulou in Yongding county which have been popularized by their UNESCO designation as a world heritage site. However, tulou means simply “earth building” and should

comprise not only round (yuan) buildings but also buildings of other shapes or footprints as long as they are made mainly from earth. The author will therefore emphasize the connection of roundhouses to other-shaped earth houses, and downplay the provincial boundaries separating Fujian, Jiangxi and Guangdong in favor of a Hakka human geography.

## 2 ROUND (HEAVEN) VERSUS SQUARE (EARTH)

From an architectural perspective, the roundhouses have been extolled for their comfort (warm in winter, cool in summer), for their defensibility (only one entrance to guard), and their communality (shared courtyard and stairways). The square tulou in the same region receive no such praise, yet they outnumber the roundhouses by far. Why did the Hakka persist in building so many square tulou? For practical reasons, perhaps, cheaper and easier to build; or aesthetic reasons, perhaps, because when they are built next to round houses, the square houses provide dramatic contrast to the roundhouses, notably in the famous plum blossom group (Tianloukeng).

It is instructive to recall the ancient Chinese reverence of the round shape as symbolizing heaven and the square shape as symbolizing earth, and to recall the over-arching goal of humans to relate equally well with both entities. These entities are manifested in Beijing as the Temple of Heaven, round in shape, where the emperors prayed for blessings on the people. In contrast there were the square elements or courtyards of the Forbidden City, from which the emperor administered the social life of all people under heaven. In the Central Plains of the Yellow River region from which the Hakka embarked on their five migrations, the shape of the characteristic dwelling (siheyuan) was square or rectangular. On the fourth migration, the Hakka devised the round house to meet the conditions of the mountainous terrain to which they had migrated, but the defined linear axes converging on the centre of the circle expressed their respect for the social values of the square (see Figure 2). The round house can be seen as reflecting spiritual (Daoist) values for the most part, with the square courtyard house seen as reflecting social (Confucian) values for the most part.

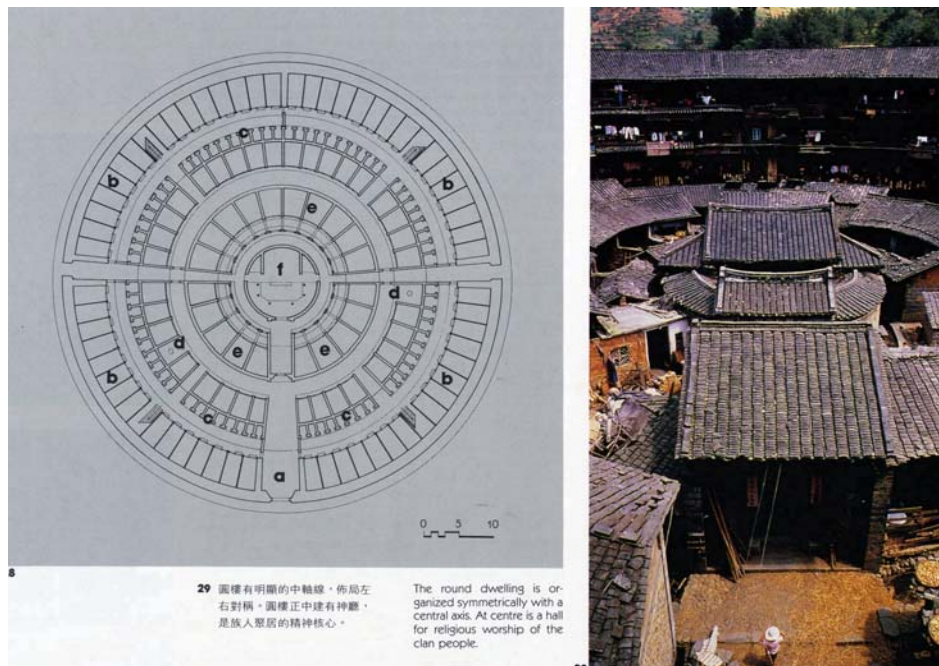


Figure 2: Linear axes in round Tolou (extract from Vernacular Architecture of Hong Kong and the New Territories)

### 3 BALANCE OF DAOIST AND CONFUCIAN

The author believes that a survey of tulou will demonstrate that the Hakka persisted in reconciling the circle and the square in creating the structures that sheltered and protected them, and thereby they maintained to a most remarkable degree both their Daoist and Confucian heritage. The emphasis given to one or the other of these binaries depended on the geographical environment and the socio-historical stage of their continuous migration from north to south. The Daoist stream, shared with all Chinese, ran stronger when, isolated from the empire they struggled for survival on the mountainous terrain that was left to them as guest people. The Confucian stream, flowing from their origins in the Central Plains, ran stronger when the Hakka arrived on the southern plains of Guangdong and with survival needs met were able to engage the socio-political system of the era. The Hakka further endorsed this binary in the basic injunction to their children -- "till the land, study hard" -- the farmer and the scholar being the two occupations generally accessible to them. Success in farming yielded the wealth that built the formidable round houses of Yongding and the weilonglou of Meixien. Success in studies, with a very high rate of passes in the civil service examinations, led to remunerative appointments and perquisites, allowing them finally to gain an economic and political foothold in the diverse economy of Guangdong to which their fourth migration brought them.

"First we shape our buildings; after that our buildings shape us," Winston Churchill said in 1943 with reference to the rebuilding of Parliament. The Hakka seemed to have cherished this idea, not only with reference to public but also to private buildings. All tulou, both round and square, were designed with public and private spaces in mind. Ronald Knapp has observed that the more elaborate courtyard tulou delivered important lessons about family and social relations as people moved about in their daily activities. The large patriarchal clan homes based on the siheyuan reflected the hierarchies of respect and duty prescribed in Confucian society in the location of apartments, courtyards, entrances, utilities, and the like.

### 4 HAKKA RELIGION

As well, important "religious" lessons were continuously imparted. The Chinese are commonly regarded as a people without an official religion, but their traditional homes nevertheless allocated more space to ancestor worship, in author's opinion, than the homes of religious societies allocated to god worship. Temples and churches in many societies are built separate from homes, but a high proportion of Chinese homes, particularly large clan dwellings, incorporate an ancestral shrine or hall. With thick high walls like a castle, the tulou with its large and central sacred space is also like a monastery.

In the case of the round or heavenly tulou, the shrine or hall has an elevated position along the main axis. As well, in order to maintain a balance between the sacred and the secular, the ancestral hall or shrine is more distinctive in the square or earthly wufenglou than in the circular or heavenly yuanlou.

The footprint of classic European cathedrals traces the central symbol of Christianity, the cross. The main axis is from west to east, with the main entrance at the western end and the altar at the eastern end. The shorter access runs from north to south, crossing the main axis at a point where the western section or nave is much longer than the eastern section. In the round houses of Fujian, the Hakka consciously or unconsciously chose to build their clan home on the foundation of the ancient symbols of the Northern Plains -- the yin-yang circle implied by dual wells and the octagonal bagua implied by the eight load bearing or fire prevention walls.

People who live close to the earth are deeply affected by the shape of their dwellings. Even physical health can be affected, as in the case of the Oglala Sioux tribe in north America whose shaman Black Elk lamented that his people were dying because their white conquerors moved them from their round tepees into square houses. However, the Hakka constantly sought to reconcile rather than fight opposing shapes. In each of the three types of tulou -- round, oval, square -- people see in the architecture attempts to balance or harmonize the sacred and the secular, the Daoist and the Confucian, divine and human rituals.

The round tulou initially projects a divine or heavenly aura, but the shrine centred on the inner circle is designed as much for teaching as for worship. In the Zhengchen complex, the author observed a freestanding temple at a short distance from the round house; this temple was also used by dwellers in other tulou in the complex. In the case of oval tulou or weilonglou, where a small number of apartments were arranged in a

rectangular design, the author did not observe a central temple but was impressed by the rise of the northern section where the energies of the dragon emerge and where there were small shrines to the five elements. In the case of the wufenglou and its extensive courtyard design suggesting a strong return to Confucianism and human rituals, the temple is very ornate and is set on a platform on the central axis.

## 5 DESIGN OF INNOVATION

Angular projections in tulou are often rounded by various means, either materially, or symbolically by the addition of water features. The octagonal shape of the bagua is not far from the heavenly circle. We could surmise that the earliest tulou were octagonal, and that the corners of tulou were later rounded. (Two octagonal tulou in Raoping, Guangdong, are shown in *Hakka Enclosed Houses of Guangdong and Hong Kong*, pp. 110-114.) The presence of water, both on the surface and underground, is essential for siting tulou and maintaining their circular character. Yuanlou or roundhouses were often laid out to face a running stream. In the case of the oval weilonglou, which has a pavement for drying grain along the south wall, a small pond was created to provide roundness to the south end, thus matching the roundness of the north end, see for example Figure 3. In the case of the rectangular wufenglou, a large and well defined semi-circular pond was created to provide roundness which would have been otherwise lacking. See for example the ground plan of Crane Lake New Dwelling, the largest of its kind in China, shown in Figure 4 (on page 242 of *Hakka Enclosed Houses of Guangdong and Hong Kong*, 2001). It should be noted that despite its great size, it appears to have only one well in contrast to the dual wells created in round tulou of smaller size; signifying that circularity of the dual-well ying-yang figure is of less importance in wufenglou. Thus the impressive pond provides a rounded shape to preserve worship of heaven. As well, a rounded garden towards the rear of the enclosed rectangle has been observed at other sites.

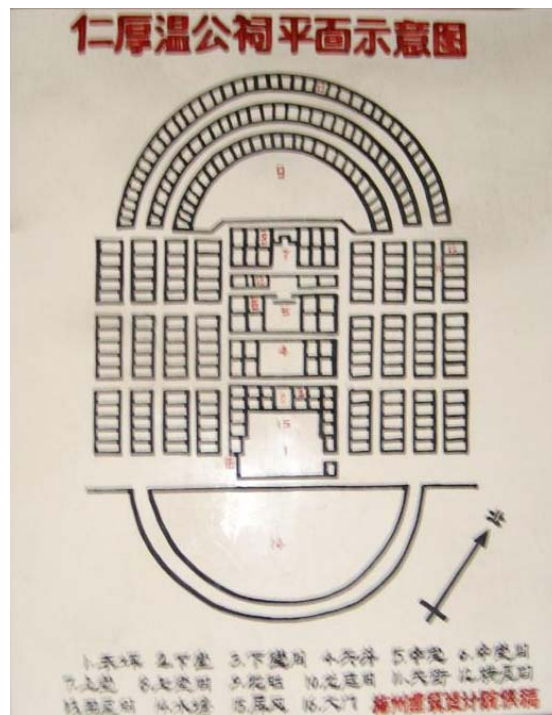


Figure 3: Semicircular pond at front completes the oval shape of a Weilonglou

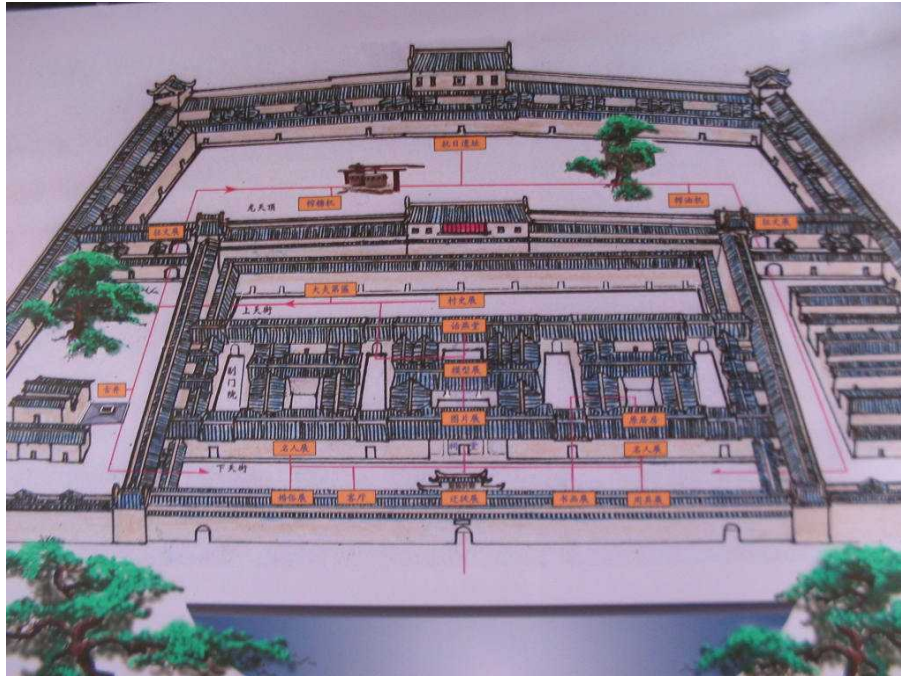


Figure 4: Semi-circular pond in front of rectangular Wufenglou, as shown on the website of Crane Lake New Dwelling, Luo Rui He, 28 kilometres northwest of Longgang, Shenzhen, Guangdong Province, China

## 6 WUFENGLOU – A RETURN OF HAKKA ORIGIN ARCHITECTURE

The roundhouses perfectly suited the mountainous topography and the violent threats of the third migration. In moving south in the fourth migration to the relatively flat lands of the traditional counties of Fui Yung, Toong On and Bao On, all now subsumed in the Shenzhen administrative area, the Hakka returned to the imperial sphere. The majority built detached houses clustered around a fortified three or four storey tower which had slits from which muskets could be fired. Whenever the Hakka were under attack, they would gather in the tower and defend themselves. However, some large and cohesive clans built Wufenglou, i.e. walled villages in the five-phoenix style, which had towers at the four corners and massive gates that could be defended from above. Inside were wells, granaries and workshops, as well a temple and a school house.

It is hard to find an adequate western name for Wufenglou, because it combined aspects of: 1) an imperial palace, 2) a castle or fort or compound, 3) courtyards consisting of linked two-storey townhouses, and 4) a monastery, having a large and high temple at the centre. Rectangular or quadrilateral in ground plan, wufenglou was laid out according to fengshui principles and embodied cosmic patterns, as were roundhouse or weilonglou. In addition, its ornamentation and size were determined by imperial decree.

The largest Wufenglou in the three (Fujian, Jiangxi and Guangdong) provinces and perhaps in all of China is Crane Lake New Dwelling in Luo Shui Hap (Hakka) or Luo Rui He (Mandarin), located some 28 kilometres southwest of the city of Lung Gong in the traditional county of Fui Yung. The founder, Luo Rui Feng, emigrated to this plains area from the mountainous region of Xietang, Xingning county, and started building the habitation in 1780. He came from a Weilonglou called Dunshang, which was founded some 16 generations before by Luo Xiao Jiu who had emigrated there (southwards) from his home village in Ningdu, Gongzhu county, Jiangxi province. In 1996 Crane Lake New Dwelling was converted into a museum of Hakka customs. Billed as a major cultural-tourism site by Guangdong province, Crane Lake New Dwelling is becoming a key center for research into the history, culture and architecture of the Shenzhen administrative area.

The Wufenglou of Guangdong are impressive in size and number, and some scholars have wondered why the siheyuan-style mansion that no longer exists in the Central Plains of the Yellow River has been recreated so faithfully in the south (Lingnan region). The author's own surmise is that by the time of their fourth migration the Hakka had become again engaged in the Middle Kingdom. Their scholars had succeeded to a high degree in the imperial examinations; based on wealth from farming and trades, strong clans could then afford to build official mansions reminiscent of their ancient origins in the north. In turn the author wonders if at the time of the first Hakka migration the Confucianist gentry of the north had created similar semi-circular ponds in front of their rectangular enclosures in order to bring some heavenly balance to their earthly mansions.

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