



The Hakka Building in Western Fujian, China

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Hakka People Origin

Hakka: Kejia in Mandarin, Meaning **"Guest Families"**



Hakka: Central Han Chinese who migrated southwards to escape wars & famines over many centuries

Population: Over 100 million

Territories: S.W. Fujian, S. Jiangxi, E.N. Guangdong, Hong Kong, Hainan, Taiwan, Singapore, Malaysia, and other E.S. Asia countries.

Language: Hakka

A Hakka Village among Mountains

To reside safely in alien lands, the Hakkas built solid tulous of area of hundreds of square meters and tens of meters high. These tulous are situated in rural villages, 2-3 hours car ride away from the city, where no pavement, no stoplights, no street signs.



- Tulou:** - Earth House, Terra House, Earth Building, Earth Mansion
- dwelling-house of unique structure built from rammed earth reinforced with wooden or bamboo slices by the Hakka people hundreds of years ago.



The Most Famous Tolou-King Tulou

-Chengqi, built in 1709 (from 1662). O/D 73m, 5376m², 3 rings 1 center, 4 floors, 400 rooms, 2 wells, 3 gates, 60 families, 400+ people (max 80 families, 800 people). Stamp pattern origin.

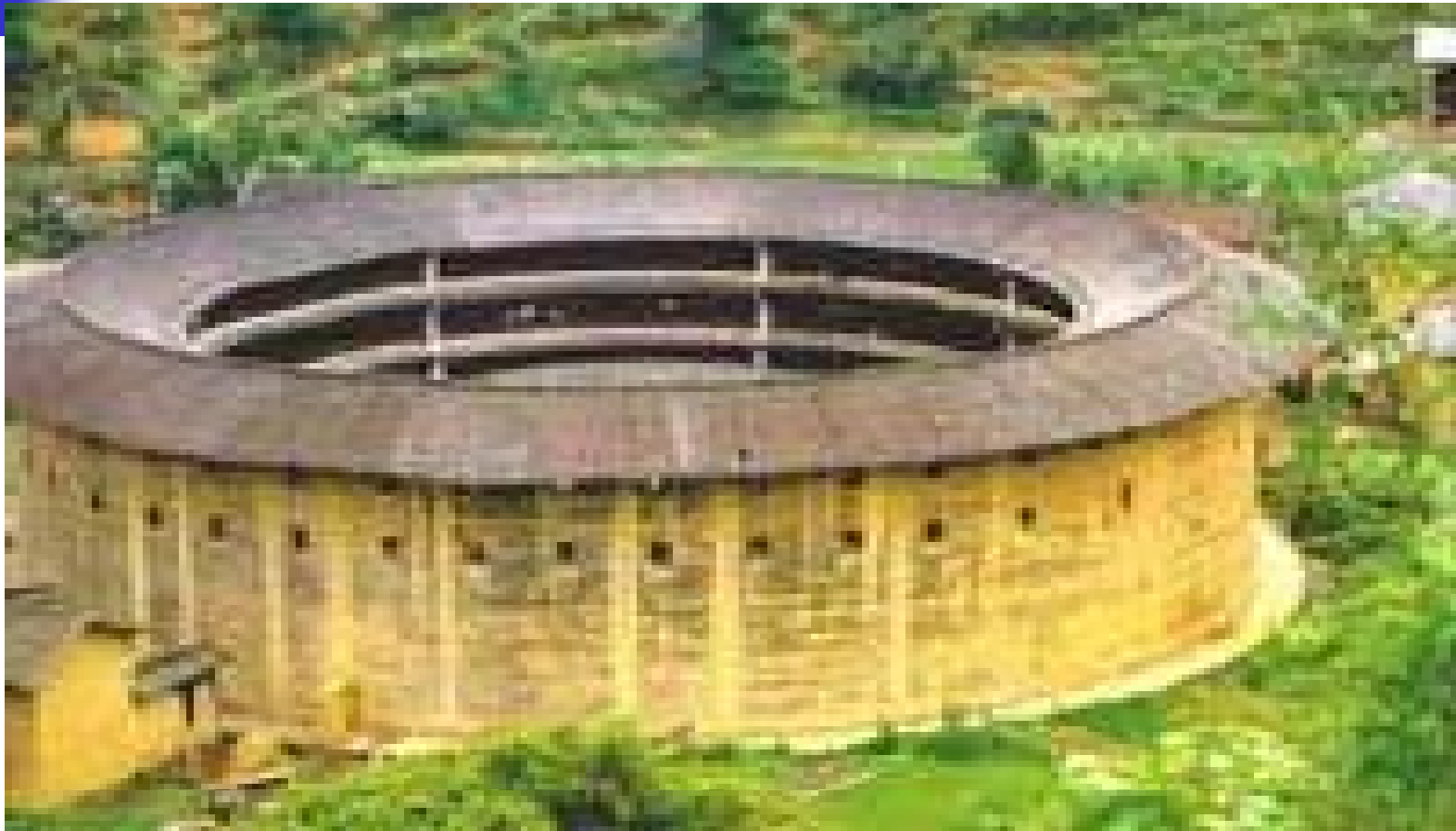


Tulou models as symbols of Hakka ancestors' artistic achievements

- Adopted as Chinese stamp pattern since 1986
(Best Stamp in China/Japan, 1986)
- Displayed at The World Architecture Model Exhibition (Los Angeles, 1986 and 1995)
- Collected in Shenzhen World Park and Taiwan World Park

Square Tulou and Round Tulou

- Round tulous built relatively later with more functions than square ones.
- The oldest Fuxin square tulou, built in 769, still in use by 8 families.
- 20 tulous existing over 600 yrs (built in ~1308).



Like Giant Mushroom, Like UFO

-Eryi, built in 1770. O/D 73.4m, 18m high, 4230m², 2 rings, 4 floors, 192 bedrooms, 2 wells, 36 families, 220 people, bottom wall thick 2.5m, gates with defending tricks.



The Most Magnificent Tulou- Prince Tulou

Zhengcheng, built in 1912, 5000m², 2 rings, 4 floors, 252 rooms (6 rooms as school classroom). Outside the circular building resembled a mud-made fort. Exhibition Tulou models origin.



The Strongest Tulou

-Huanji, built in 1693, O/D43.2m, 20m high, 4 floors, 2 rings, 152rooms, 21 families, 116 people. There was a crack (20cm x 3m) in the wall from a R.7 earthquake in 1918, but later the gap was sealed up naturally!



Spectacular Tulou - A Fortified Kingdom!

1-3 rings enclosed by huge peripheral ones, resided by 300-800 people in hundreds of rooms with halls, storehouses, bedrooms, schoolrooms, ancestral shrine, & water wells.



Hakka people have integrated living, religion, military, community functions all into one structure.

The largest: 11,000m², O/D 95m with 800 rooms for 100+ families.

The smallest: 260m², O/D 18.2m with 36 rooms for 6 families.

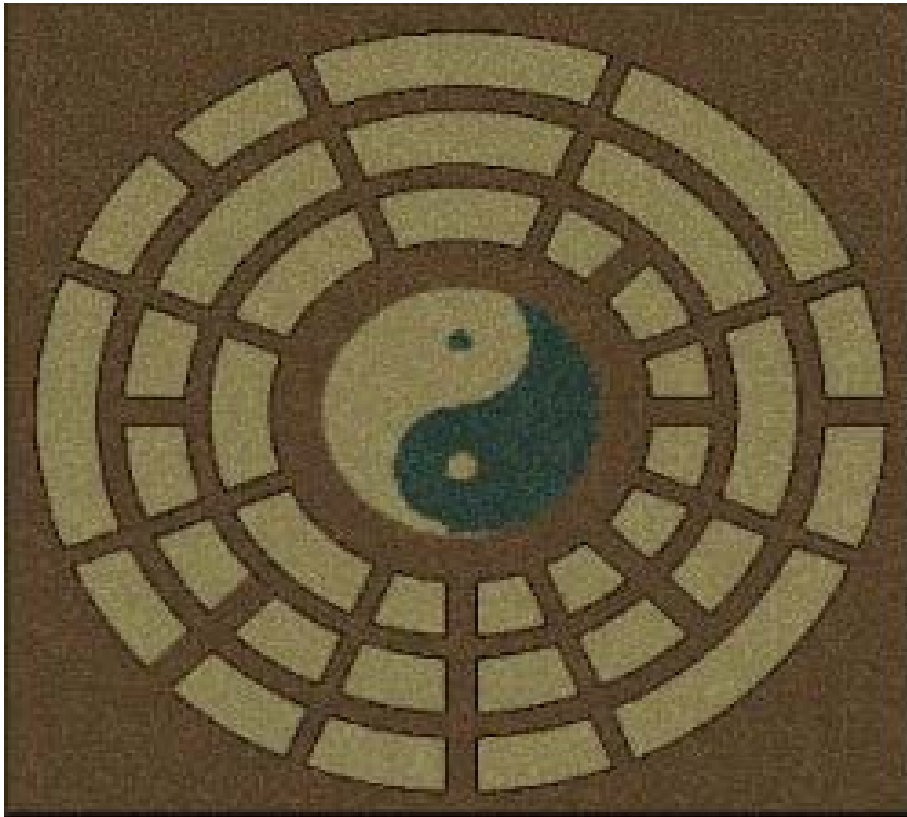
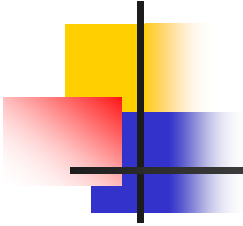
A self-contained world for best defense, with enough food/ living stocks to enable the residents to be locked inside for several months when attacked by bandits.

Frozen Music- A Beauty of Architecture!

Zhengcheng was constructed with the Bagua idea (6 room/gua), fire-resistant walls between two guas, 2 wells, stage-like ancestral shrine, showing north/south China and Chinese/Greek architectural features.



Fengshui



**A kind of
knowledge &
philosophy**

**full of Yingyang
/Bagua ideas**

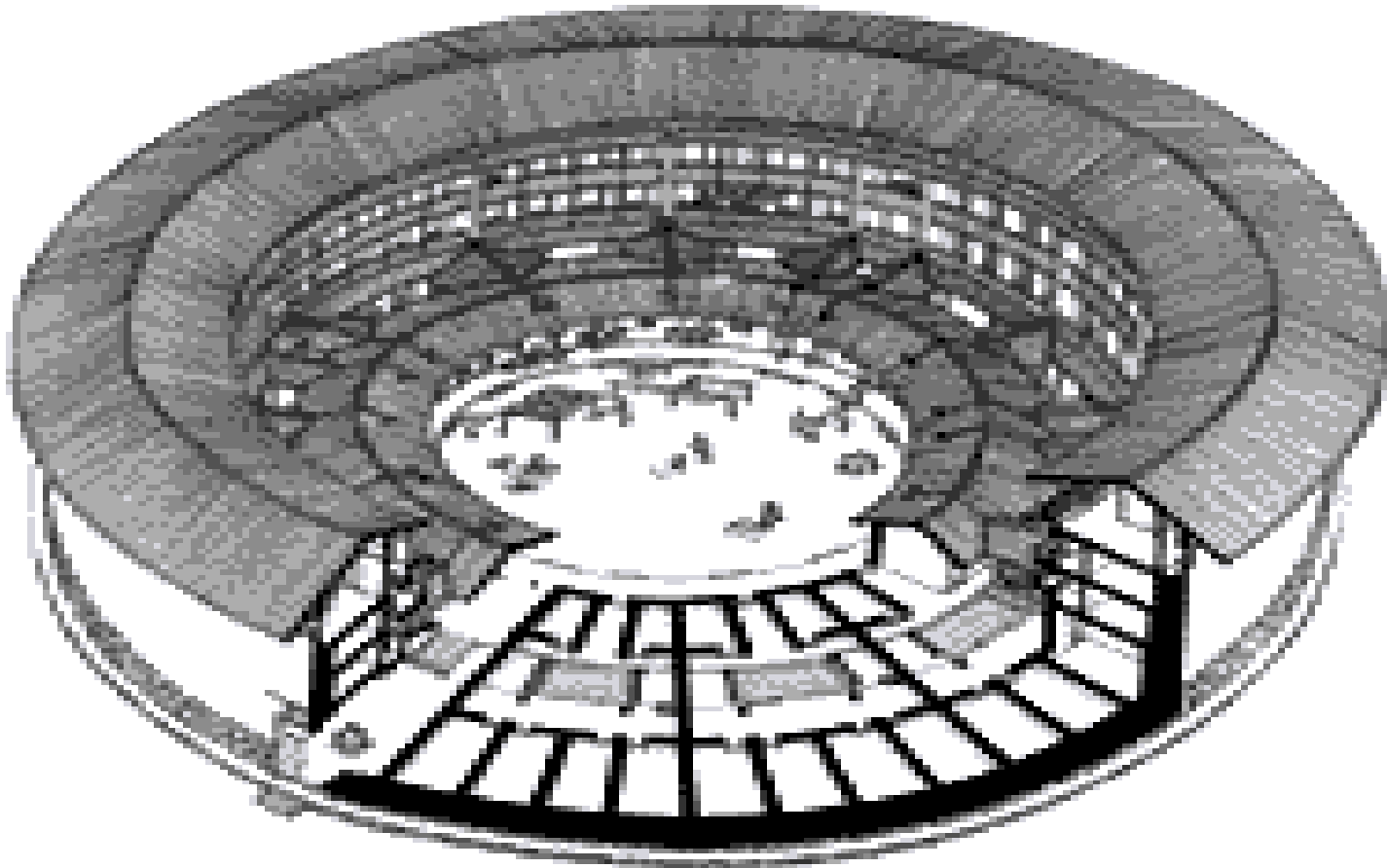
Representative of Hakka Culture and Origin

There exist variety of cultural treasures such as sculpture, paintings, couplets, calligraphy. This picture also shows Palace-like structures of typical Central /North China architectures inside Kuiju Tulou.



Structural and Functional Features

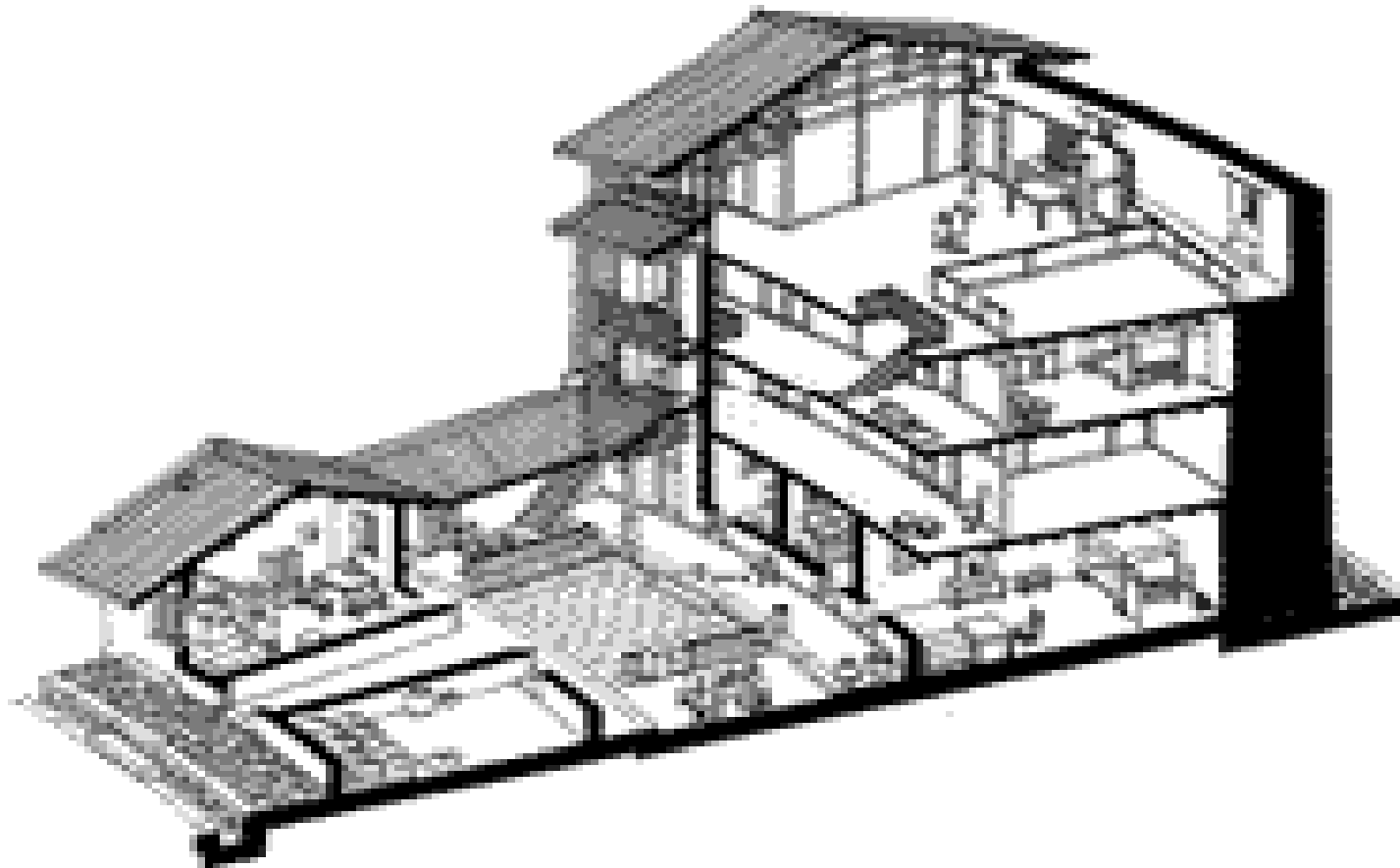
Well lighted, well ventilated, windproof, fireproof, quakeproof, warm in winter/ cool in summer, easily defensible with heavy/strong doors and thick walls (2.5m). Secured, safe, strong, durable, closed, communal.



Structural Unit Showing Peculiar Design

Each family's vertical unit is made up of the ground floor for cooking & dining, second floor for storage and third and fourth floors for living.

No windows except the 4th floor. Base wall 1.5-2.5m thick.



Typical Bedroom inside Tulou

Many Hakkas are still living in these buildings of 600 yrs history, but more and more young generations are moving out into modern houses. How to preserve traditional Hakka culture is in question.





Summary

Hakka people are one group of Han Chinese who maintained their own identity- language, customs and culture.

Hakka Tulou have been built and dwelled by Hakka people for hundreds of years and found being a type of human dwelling house of unique style and peculiar structure in the world.

Hakka Tulou are being evaluated by UNESCO World Heritage Committee as a cultural property for the World Heritage List.



Acknowledgements and References

All photos courtesy of some of the following websites

Pictures and Articles in Chinese

- <http://life.cww.com/docs/house/2000-08-17/24122.shtml>
- <http://www.minxi.com.cn/tour/earthbuilding/earthbuilding.html>
- <http://www.unn.com.cn/GB/channel229/233/954/972/200011/01/5081.html>
- http://www.fjzz114.com/xxdj/xxdj_zzjd_zzfq_haddceyl.htm
- <http://www.south.nsysu.edu.tw/group/NTUHakka/about/thu.htm>

More about Hakka in Chinese

- <http://www.hakkaer.com/mykj/kjmj/ydtl.htm>
- <http://www.hakkaonline.com/gbindex.htm>

Pictures and Articles in English

- <http://asiaphoto.com/bigpictures/hakka>
- <http://www.chinanow.com/english/features/travel/yongdingprint.html>
- <http://arch.hannam.ac.kr/~hpw/china/tulou/tulou.htm>

Comments and Questions?



Thank You.



Quiz

Hakka people are

- | | | |
|--|-----|----|
| ■ one group of Han Chinese. | Yes | No |
| ■ one group of many Minorities in China. | Yes | No |

Tulou is a term for

- | | | |
|-----------------------|-----|----|
| ■ military buildings. | Yes | No |
| ■ civilian buildings. | Yes | No |

Most Tulou

- | | | |
|---------------------------------------|-----|----|
| ■ had a history of hundreds of years. | Yes | No |
| ■ have been recently built. | Yes | No |

One Tulou building is able to accommodate

- | | | |
|---------------------------|-----|----|
| ■ one Hakka family. | Yes | No |
| ■ tens of Hakka families. | Yes | No |