

Fujian Tulou (China)

No 1113

*Official name as proposed
by the State Party:*

Fujian Tulou

Location:

Yongding County,
Nanjing County,
and Hua'an County,
Fujian Province,
People's Republic of China

Brief description:

In lush mountainous areas in the south-west of Fujian province, inland from the Taiwan Strait, large fortified communal clan houses, mostly built of rammed earth, and known as *tulou* (earthen houses), are set amongst fields of rice, tea and tobacco below surrounding sub-tropical forest of pine, Chinese fir, cypress and camphor trees.

These multi-storey, inward-looking, circular or square dwellings were designed for communal living with family units of up to five storeys arranged around a courtyard. Each housed a complete clan, of up to 800 people, and functioned much as a village unit.

Some *tulou* may have been constructed in the 12th and 13th centuries; the tradition continued until the late 1900s. Several remained in the ownership of the same family over 600 years. The 46 nominated *tulou*, spread out in ten sites across some 120km, represent around three thousand surviving clan houses.

Category of property:

In terms of the categories of cultural property set out in Article 1 of the Convention, this is a serial nomination of *groups of buildings*.

1. BASIC DATA

Included in the Tentative List: 31 October 2002

*International Assistance from the World Heritage Fund
for preparing the Nomination:* None

Date received by the

World Heritage Centre: 11 January 2007

Background: This is a new nomination.

Consultations: ICOMOS has consulted its International Scientific Committee on Vernacular Architecture (CIAV).

Literature consulted:

Yu Dehui (ed.), *Yongding Hakka earth buildings of China*, Beijing, 2000.

Wang Qijun, *Ancient Chinese Architecture: Vernacular Dwellings*, New York, 2000.

Technical Evaluation Mission: 29 August-3 September 2007

Additional information requested and received from the State Party: ICOMOS has sent a letter to the State Party on 20 December 2007 on the following issues:

- Extension of the buffer zone for Zhenfuou (Yongding);
- The reasons for moving people out of the core and buffer zones and on the overall policy for sustaining the buildings as living units rather than museums;
- Further information on upgrading *tulou* services;
- Further information on the overall approach to the landscape and on how an authentic farmed landscape can be sustained as an appropriate setting for the *tulou*.

The State Party responded with supplementary information on 25 February 2008. These responses are included in the report below.

Date of ICOMOS approval of this report: 11 March 2008

2. THE PROPERTY

Description

Tulou (or earthen houses) are very large scale communal houses, built for defense around a central open courtyard and with few windows to the outside and only one entrance. Often up to five storeys high, their tall fortified mud walls are capped by tiled roofs with wide overhanging eaves. Housing a whole clan, which could have as many as 800 people and up to four generations, they functioned as village units and were known as a 'little kingdom for the family' or 'bustling small city'.

Developed by people migrating south into the fertile valleys of Fujian, Jiangxi and Guangdong provinces, cohesive clan structure and a comparatively weak state seem to have produced the conditions under which these buildings came into existence. Some *tulou* may date from 13th or 14th century or even earlier. In the 17th and 18th centuries some of the largest and most elaborate structures were produced. By the late 18th and 19th centuries the *tulou* were associated with the processing of tobacco and tea. They reflected the great wealth generated by the industry and often had western style decoration. The last *tulou* were constructed in the late 1900s – possibly the very last in 1978 – and many of these were funded by overseas Chinese.

The giant-sized houses dominate the narrow valleys. Some houses are circular in form while others are rectangular or square. Most have walls of rammed earth which taper towards the top – which is sometimes only half the width of the base. The *tulou* often took several years to build and were constructed storey by storey. Some later developed more complex plans as inner rings were added.

Although their siting appears somewhat random the layout is strongly according to *Feng Shui* principles – with the houses being built around auspicious places, in terms of their relationship to streams running through the valleys and the surrounding hills.

Within, the buildings were divided vertically between families with each having two or three rooms on every floor. Some *tulou* had galleried corridors connecting the rooms at each level. This arrangement prevails in villages of the Hakka communities. *Tulou* lived in by the Fulao community reflect greater family privacy with each family having a separate entrance from the central space and stairs to upper floors. Nevertheless in these buildings a corridor was also built at high level to allow joint defence.

In contrast to the plain, defensive and mostly unadorned exteriors, inside many *tulou* were laid out for comfort and enlightenment, particularly the communal rooms. In the centre were built one or two storey ancestral halls, often highly decorated with wooden carvings and paintings. The *tulou* usually have a central axis aligning the main gate, ancestral hall and rear lobby. Some *tulou* included school rooms for women, who could not be educated outside the clan building, and rooms for music and entertainment, and a few have small gardens outside the walls where young scholars and warriors did exercises and read books and where the owner came for his leisure. Many are enlivened by tablets with writings that reflect education, culture, respect for ancestors and clan cohesion.

Each storey had a clear function. In *tulou* with galleries, kitchens and dining rooms were on the ground floor, storage rooms on the first floor; and bedrooms above, while *tulou* without galleries had utility rooms on the ground floor, bedrooms above and storage on the top floor – some with blue tiled platforms on which crops could be dried.

The main building material for the walls was mud – sometimes rammed in layers, at other times made into bricks and sometimes reinforced with wood. Nearly all the *tulou* have stone foundations.

As they accommodated very large numbers of people and usually only had one entrance, fire was an ever present danger and several of the nominated *tulou* have been rebuilt after devastating fires. Great care was taken in some *tulou*, particularly those dating from the 19th century, to make the structures as fireproof as possible through inserting brick dividing walls between the domestic units and brick floors – which collapsed when the building was on fire, spontaneously putting out the flames. Most *tulou* had water boxes positioned over the main gates.

The serial nomination consists of 46 *tulou* in ten sites, in three main areas up to 120 km apart. Six sites have clusters of more than one *tulou*, and four sites have one individual *tulou*. Each of the ten sites is enclosed by a buffer zone.

The nominated property consists of the following:

Yongding County

- *Chuxi Cluster: 10 tulou*
- *Hongkeng Cluster: 7 tulou*
- *Gaobei Cluster: 4 tulou*
- *Yanxiang Lou tulou*
- *Zhenfu Lou tulou*

Nanjing County

- *Tianluokeng Cluster: 5 tulou*
- *Hekeng Cluster 13 tulou*
- *Huaiyuan Lou tulou*
- *Hegui Lou tulou*

Hua'an County

- *Dadi Cluster 3 tulou*

These are described separately:

Yongding County

- *Chuxi Cluster: 10 tulou*

These *tulou* are surrounded by mountains up to 1,200 metres high, terraced at their lower levels. Built either side of small ravine, the *tulou* are connected by paths paved with blue stones. In the centre of the settlement is an ancestral hall. The Chuxi *tulou* are variously rectangular, square, circular, oval and hexagonal in plan. The earliest *tulou*, Jiqing Lou was constructed between 1403 and 1424, and has a double ring form. It is also the largest of four stories in height, 66 metres in diameters and covering an area of 2,826 square metres. Two other *tulou* were built in the 18th century, four in the 19th century and three in the 20th century, the last in 1978.

- *Hongkeng Cluster of 7 tulou*

Hongkeng is a long linear settlement with many *tulou* arranged either side of a central stream. In 2005 there were 2,413 people in 643 households living in the village and engaged in farming. The seven main *tulou* are surrounded by smaller buildings including an ancestral hall, and a temple and a waterwheel.

The *tulou* date from the 18th century to 1937 and reflect several different types of plan. One, Guiju Lou, constructed in 1834 is of square plan and especially large covering 6,000 square metres. It is also particularly elaborate with a carved and painted central ancestral hall and the floors of the upper rooms paved with fireproof grey bricks.

Zhencheng Lou, built in 1912 combines Chinese and Western styles. With its tall moonstone columns, the ancestral hall reflects architectural features of ancient Greece. It serves as a communal place for the area and is used for weddings, funerals, banquets etc.

- *Gaobei Cluster: 4 tulou*

Gaobei village housed 306 people in 2005. As with the other settlements, the *tulou* are built around a stream. Only part of the settlement is within the nominated area. The earliest *tulou* dates from the 16th century, a second large circular one covering 5,376 square meters is from the 17th century and the two remaining ones were built in 1931 and 1962.

The 17th *tulou*, Chengqi Lou, is perhaps the largest circular *tulou* ever constructed housing as many as 800 people. It has an unusual plan consisting of 4 concentric annular constructions. One of the single storey rings housed a school for women. It is described as a maze – easy to access but difficult to leave.

- *Yanxiang Lou tulou*

The circular *tulou* was built in 1842 and covers 4,300 square meters. Around 100 metres from the outer wall is a small garden for exercises and study.

- *Zhenfu Lou tulou*

This large circular *tulou*, standing on its own in a narrow valley, covers 4,000 square metres, and was built by a businessman in 1913 to house workers for the tobacco industry. Like Zhencheng Lou, it is a mixture of Hakka and western architectural styles – the elaborate ancestral hall has granite columns, and the porch is tiled and enclosed by an iron grille gate.

Part of the internal space was used for storing tobacco products and for offices.

Nanjing County

Tianluokeng Cluster: 5 tulou

All five *tulou* belong to the Huang clan. One, a square *tulou*, was constructed at the end of the 17th century; the other four, three circular and one oval, date from between 1930 and 1966 – together they form five buildings in a ring.

One, Hechang Lou, was initially a square structure dating from the Ming Dynasty (14th century) but was burnt down by robbers and then rebuilt in the 1930s. In comparison with some of the other *tulou*, this group is comparatively simple with no decorated ancestral halls.

- *Hekeng Cluster: 13 tulou*

This cluster of 13 *tulou* interspersed with lower two storey buildings belong to the Zhang clan. Six are square in plan, six circular and one pentagonal. One is from the 17th century; two from the 18th century, three 19th century and seven from the 20th century – including Chaoshui Lou which originally dated from the Ming Dynasty and was rebuilt after a fire.

Yongsheng Lou, built in the 17th century is currently unoccupied, while Yongrong Lou only has five residents.

Shengping Lou, square in plan, is unusual in being higher at the rear and lower at the front and bears similarities to courtyard houses in neighbouring regions.

- *Huaiyuan Lou tulou*

This *tulou* was built between 1905 and 1909 by a member of the Jian family who had made money in Burma. It is a double annular building with four watch towers and coves 3,468 square metres. It is set at the centre of a loose cluster of lower buildings, only some of which are in the nominated area. In the centre is the highly decorated Hall of Poem and courtesy – for children and clansmen to read and study. The hall's wooden carvings including brackets in the shape of books, and highly coloured dragons, flowers and beasts.

- *Hegui Lou*

Built in 1732 and backing against mountains to the west, the square *tulou* is at the centre of a cluster of lower houses which fill the plain formed by a curve in the stream. Some of these are in the nominated area, others in the buffer zone. On the other side of the stream are more houses and more *tulou*.

Hua'an County

- *Dadi Cluster: 3 tulou*

All three *tulou* were built by the Jiang clan. One circular *tulou*, Eryi Lou, dates from the 18th century and is slightly separate from the other two, one square and one circular, which were both built in 1817 and together represent circular heaven and square earth. All three are strictly located according to *Feng Shui* principles in their relationship to the surrounding mountains and twin streams.

Eryi Lou is richly decorated with 226 murals, 228 paintings, 349 wooden sculptures and 163 couplets – all reflecting mountain, flowers, birds and legendary figures and overall local folk art.

History and development

Archaeological research has revealed that there have been communal houses built of rammed earth in China, Central Asia, and East Asia since the Neolithic period (6,000 years ago). Over a long period social, economic, and cultural developments in south-eastern China were closely associated with the mass immigration of northern people. During the Western Jin Dynasty (307–12 CE), because of continual warfare and serious drought, people from central China began to migrate southward, many of them reaching Fujian, bringing with them the advanced cultures of central China, and Fujian began to thrive. In the late Tang dynasty (7th–8th century), people in central China once again moved southward on a large scale to escape the wars, many going to Quanzhou and Fuzhou along the coast of Fujian and Jianzhou in the north. Those who settled in south-eastern Fujian (Zhangzhou and Quanzhou) became the Fulao people, who spoke the Minnan (south Fujian) dialect during the course of merging with local people. Some of their descendants went even further, to overseas countries.

During the later years of the Northern Song Dynasty and the Southern Song dynasty in particular (1127–1279), the conquest of northern China by Jin ethnic people forced many people in central China once again to move southward, bringing with them the language and culture of central China to form the Hakka group, now mainly distributed in Jiangxi, Fujian, Guangdong, and Hainan Provinces and Taiwan, together with millions of overseas Chinese worldwide.

The Fujian *tulou* seem first to have appeared in the Song and Yuan Dynasties (11th–13th centuries) and developed from the 14th and 16th centuries (Early and Middle Ming Dynasty), reaching their peak between the 17th century and the first half of the 20th century (the Late Ming and Qing Dynasties and the Republic of China period).

The first *tulou* buildings were comparatively small, rectangular or square, plainly decorated, and without stone foundations. From the end of the 14th century to the early 17th century (Ming Dynasty), in response to improved agricultural development in Fujian, and frequent bandit raids (attracted by the prosperity of the area) much larger *tulou* were constructed. As a result of an increase in the processing of tobacco and tea between the mid 17th and the first half of the 20th centuries, *tulou* were further developed that reflected in their size and decoration the wealth created from industry.

Many of the *tulou* are extremely well documented and the names of founders of the clans and the builders of the *tulou* are known from as early as the 13th century and in many areas the same family persisted until the 20th century.

The *tulou*, although providing communal housing and reinforcing the structure of clans, were until the 20th century, mostly built and owned by one powerful individual. In the early buildings these would be people who derived their wealth from land and agriculture, (such as rearing ducks or cattle) for the later buildings trade and industry, in the 17th century shipping and tea, and later processing tobacco. For instance, the building of the early *tulou* in the Hongkeng cluster is attributed to Lin Yongsong, descendent of two brothers who had moved into the area around 1290, while Zhencheng Lou constructed in 1912 was built by Lin's 21st generation descendents, two brothers who had made large sums from the Sunrise cigarette cutter factory, and spent 80,000 silver dollars on building the *tulou*.

Tulou built in the 20th century were often funded by overseas Chinese such as one of the *tulou* in Gaobei cluster where local clansmen constructed the building jointly with money provided by their overseas relative, after whom the building was named.

Fujian Tulou values

The values of the nominated property relate to the size, technical sophistication and extent of *tulou* buildings together with their precise siting in their valley landscapes.

3. OUTSTANDING UNIVERSAL VALUE, INTEGRITY, AND AUTHENTICITY

Integrity and Authenticity

Integrity

The integrity of the *tulou* is related to their intactness as buildings but also to their relationship with the surrounding landscape – into which they were so carefully sited in accordance with *Feng Shui* principles.

ICOMOS considers that the intactness of the buildings is very satisfactory in that they contain all the elements that make them distinctive. As far as the landscape is concerned ICOMOS considers that the integrity is slightly compromised in some sites where the boundary has been tightly drawn around the *tulou* and elements of the surrounding landscape are partially excluded or in the buffer zone.

Authenticity

The main threat to the *tulou* in previous centuries was fire and several in the nomination have been partially or wholly rebuilt after conflagration. Other *tulou* have been altered and enlarged in response to changing economic circumstances or an increase in population – with for instance inner rings of buildings being added.

The practice of building *tulou* continued until 1978 and so the building traditions of rammed earth, traditional carpentry, wood carving and roof tiling have been kept alive. The overall collection of *tulou* in the nominated areas reflect the development of the building style but also the continuous traditions of maintenance. Although built and owned by one person, their maintenance was undertaken by the many people who lived in them and was a communal arrangement.

The greatest threat to authenticity will be the absence of large numbers of people to undertake their maintenance.

Another threat could be activities aimed at improving the physical appearance of some of the *tulou* (see “Present state of conservation” below).

Authenticity is also applicable to the landscape within which the *tulou* are placed. Currently this is still an agricultural landscape with farms against a backdrop of wooded hills and with the main *tulou* complemented by smaller one or two storey farm buildings. For the *tulou* to retain their authenticity, this harmonious relationship between *tulou* and their landscape will need to be sustained.

Thus the authenticity of the *tulou* is related to the agricultural processes that created the wealth for their construction and they need to be understood in this context.

ICOMOS considers that to meet in full the conditions of integrity and authenticity, the relationship between the <i>tulou</i> and their surrounding landscape will need to be sustained.
--

Comparative analysis

The Comparative analysis provided in the dossier is based on the precept that the *tulou* are unique and thus can have no comparators. It says that it is meaningless to compare the form of the *tulou* with other similarly shaped buildings such as the Coliseum in Rome as the cultural context is completely different. Similarly it suggests that it is not enlightening to compare the *tulou* with defensive castles as these represent quite different cultural responses. Finally it suggests that there are no other similar large scale building extant built of mud. The comparative analysis therefore concentrates on justifying the choice of *tulou* in the nominated area as being the most representative of the 3,000 that survive in that they reflect all the attributes of the style in terms of periods of construction, plans, landscape layout and completeness, and are the most highly developed examples.

ICOMOS agrees that a comparison with other similarly shaped buildings is not relevant. The only relevant comparison would be with constructions that reflect the key attributes of the *tulou*: large-scale defensive buildings of mud construction lived in by whole clans of farmers in a style that has persisted and developed over at least seven centuries.

Although large-scale mud buildings exist in the Himalayas, and Yemen, and large scale mud city walls existed in many places in west Africa, ICOMOS considers that the combination of attributes that characterise the *tulou* and their persistence over time do make them unique and without comparison.

ICOMOS considers that the comparative analysis justifies consideration of the Fujian *tulou* for inscription on the World Heritage List.

Justification of the Outstanding Universal Value

The State Party considers that the property is of outstanding universal value for the following reasons:

- In the mountainous regions of south-eastern Chinese provinces of Fujian, Jiangxi, and Guangdong, large mainly circular buildings known as *tulou*, constructed of rammed earth combined with wood and stone as the communal homes of farming families, are of unique form.
- These *tulou* embody a profound cultural and historical tradition, and also integrate perfectly with the natural environment.
- Among these buildings, the *tulou* of Fujian are the most representative and numerous.
- Fujian *tulou* are a characteristic architectural form created over a long period against unique historical and cultural backgrounds and specific natural and geographical conditions.
- With many artefacts and written records surviving from different times from the 11th century onwards, these buildings reflect the emergence, innovation,

and development of this outstanding art of earthen buildings from the 11th century to the present day.

- They provide abundant material evidence for the development and evolution of specific historical processes, cultural traditions, ethnic groups, and folk customs, and have outstanding universal historical and aesthetical value.

Criteria under which inscription is proposed

The property is nominated for inscription on the basis of criteria (i), (iii), (iv), (v), and (vi).

Criterion (i): represent a masterpiece of human creative genius.

This criterion is justified by the State Party for the following:

The *tulou* in the mountainous areas of Fujian is a unique residential building complex made from rammed earth. It is a creative masterpiece in earthen architecture with high aesthetic value and exceptional defensive capabilities which absorbs *Feng Shui* principles of China's traditional architectural planning, meeting both the living and the defensive requirements of its clan communities.

Despite a seemingly plain appearance, its concept, design, shape, and exquisite interior structure is in elegant harmony with the surrounding mountains and rivers, presenting a uniquely charming picture.

ICOMOS considers that although the *tulou* are indeed exceptional structures from a technical point of view and from the way their form harmonises with their surrounding landscape, the nominated *tulou* as a group can not be seen to be masterpieces of creativity.

ICOMOS considers that this criterion has not been justified.

Criterion (iii): bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared.

This criterion is justified by the State Party for the following:

Fujian *Tulou* is an architectural achievement and historical testimony under specific natural and geographical conditions and significant social changes and turmoil, based on oriental kinship-based ethics and the tradition of a clan living together. The modernized lifestyle and process of urbanization is influencing the continuity of this traditional lifestyle.

ICOMOS considers that the *tulou* do bear an exceptional testimony to a long-standing cultural tradition of defensive buildings for communal living that reflect sophisticated building traditions and ideas of harmony and collaboration.

ICOMOS considers that this criterion has been justified.

Criterion (iv): be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history.

This criterion is justified by the State Party for the following:

The Fujian *tulou* is a unique and beautiful example of rammed earth residential buildings or systems that are widely distributed in Fujian, Jiangxi, and Guangdong provinces. The Fujian *tulou* is the most widely distributed group, with the largest quantity and the richest variety: some three thousand *tulou* have been confirmed.

ICOMOS considers that the *tulou* are exceptional in terms of size, building traditions and function, and reflect society's response to various stages in economic and social history within the wider region.

ICOMOS considers that this criterion has been justified.

Criterion (v) – ‘... be an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.’

This criterion is justified by the State Party for the following:

The Fujian *tulou* conform with the oriental philosophy that regards heaven and man as a whole and to the *Feng Shui* principles of architectural planning. Indigenous construction material is used, and sites are selected either besides the mountain or along the river. The Fujian *tulou* is a perfect demonstration of the widely influential cultural tradition of a nation in a specific natural and geographical setting, which achieves harmonious unity between residential buildings and the natural environment, and is an architectural expression with singular features and aesthetic values.

ICOMOS considers that the *tulou* as a whole, and the nominated group in particular, reflect, in terms of their form as a unique reflection of communal living and defensive needs, and in terms of their harmonious relationship with their environment, an outstanding example of human settlement, well documented over time.

ICOMOS considers that this criterion has been justified.

Criterion (vi): be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.’

This criterion is justified by the State Party for the following:

The birth of Fujian *tulou* is connected with several notable migrations of nationalities in the history of China, with the history of nomadic and farming nationalities, and with the history of the Mongol Empire. Its creators and inheritors are the descendants of Central Plains

people who migrated southwards because of social upheavals and who integrated with local residents in Fujian Province.

The Confucian tradition has been retained inside the *tulou* and integrated with local customs and features. As a result, a unique dialect, folk art, religious ideas, and lifestyle came into being. *Tulou* provides important evidence in the study of anthropology and folkways.

ICOMOS considers that the justification does not set out how the *tulou* and their landscape can be read for their association with exceptional migrations – rather it is the results of those migrations that are exceptional and this has been recognized by other criteria. Nor does ICOMOS consider that the unique lifestyle, in terms of folk art and dialect, can be seen as exceptional when compared to the many other rich cultures that exist in the same geo-cultural region.

ICOMOS considers that this criterion has not been justified.

ICOMOS considers that the nominated property meets criteria (iii), (iv) and (v) and that the outstanding universal value has been demonstrated.

4. FACTORS AFFECTING THE PROPERTY

Development pressures

The natural environment and the inhabitants circumstances (modes of production, lifestyle, economic conditions, and culture) reflect a steady traditional agricultural way of life. Since the 1980s, however, the region has undergone rapid economic, social, and demographic growth, which will inevitably exert pressure and create threats to the Fujian *tulou* and their natural environment. The Provincial administration has worked with the relevant County authorities to prepare protective measures, including the banning of new construction in the protected areas and of mining, quarrying, or deforestation in the buffer zones.

Landscape change

The harmonious relationship between the *tulou* and their environment, which reflects *Feng Shui* principles, could be threatened by changes in agricultural practices. Currently most of the *tulou* sit within comparatively small, often terraced, cultivated fields worked by those who live in the community and interlaced with a network of stone paths against a backdrop semi-tropical forest. Some of this landscape is in the core zone and some in the buffer zone. Supportive policies will be needed to ensure that the cooperatives that own the buildings and farm land can continue to farm the land in an appropriate way and that the link between buildings and cultivated land is maintained.

Visitor/tourism pressure

The Fujian *tulou* have been for many years an attraction for Chinese and foreign visitors. At least half a million were record annually between 2001 and 2005, and the

opening up of further scenic areas will see these figures rising.

It is recognized, however, that too many visitors may adversely impact the structures, especially the wooden floors, which will affect the traditional way of life and culture. The creation of tourist facilities will, furthermore, have a negative impact on the environment.

The three county governments have each drawn up tourism protection plans by means of which the volume of tourism and the creation of facilities will be limited and approved routes will be created.

Depopulation and population pressure regulation

In some *tulou* population growth has led in recent years to the construction of modern buildings outside the *tulou*. Where there are seen to compromise the main buildings and their setting, the county governments have demolished houses and relocated people outside the core areas and buffer zones. Procedures for this process, including compensation for owners, has been set out.

At the same time, at other nominated properties there is depopulation and in some concern over how to find new and viable uses for vacated units. Qiaofu Lou and Zhenfu Lou, owned by overseas Chinese are now protected and managed by the local government with the permission of the owners, and are used as temporary sites to show *tulou* culture and local traditions.

Nanyang Lou, owned by a family whose members either live overseas or in Xiamen, has now been transferred with the agreement of the owner to the local community and is run as a community museum to show *Tulou* culture.

The *tulou* exist in a fragile environment that will come under additional pressure with the expected growth in tourism. Part of their value lies in their relationship with agricultural activities carried out in the surrounding landscape. If all the *tulou* became museums there could be a significant loss in authenticity.

Environmental pressures

The environmental pressure on the Fujian *tulou* is very low because of their location in highland regions with beautiful natural environments and without industrial or other development projects. Many years of monitoring have demonstrated high surface water and low air pollution in a sub-tropical monsoon climate which gives adequate sunshine and plentiful rainfall.

Fire

The considerable use of wood in the *tulou* mean that there is a high risk of fire. Each *tulou* has its own volunteer fire-fighting unit and the up-to-date equipment is readily to hand. Fire prevention operates at a high level and great care is exercised with cooking equipment, whilst the use of candles is forbidden.

Floods

The flood control measures in operation include the construction of spillways and protection slopes, whilst electricity lines and cables are buried underground.

Natural disasters and risk preparedness

The sub-tropical monsoon climate gives an average rainfall of 1,748mm. There are occasional typhoons, floods, and earthquakes. Four tropical rainstorms hit the region in every year between 1956 and 2005, and on 25 July 1983 the wind reached 12 on the Beaufort scale. However, the impact of wind and rain on the *tulou* is mitigated by regular dredging of watercourses and sewers and monitoring of tiled roofs.

Since the 11th century seven earthquakes of above magnitude 5 on the Richter scale have been recorded. However, there are no records of the destruction of *tulou*.

ICOMOS considers that the main potential risks to the property are associated with economic and demographic changes that might lead to depopulation of the *tulou* in some areas, pressure on their accommodation in others, and changes in farming practices that could change their landscape setting. Increased visitor numbers could also accelerate these processes. ICOMOS stresses the importance of ensuring that tourism protection plans are rigorously adhered to.

5. PROTECTION, CONSERVATION, AND MANAGEMENT

Boundaries of the nominated property and buffer zones

The boundaries of the core zones of the nominated properties have been defined so as to include the main buildings and clusters but in some instances their associated buildings and landscape setting have been partially excluded.

The nominated properties are surrounded by buffer zones that cover the remaining parts of settlements, where these exist, and part of the surrounding landscape. In most cases they are based on the nearest mountain ridges (the so-called “first ridge mountains”). Given the importance of the landscape setting of the *tulou*, there is a need to ensure that protection is in place for the wider setting of the property as well as the core and buffer zones.

ICOMOS considers that the boundaries of the core and buffer zones are adequate, but that the wider landscape setting need to be respected and protected.

Ownership

According to the regulations in the Land Administration Law of the People’s Republic of China, the lands within the areas of the nominated properties are owned by the peasant collectives. Most of the *tulou* buildings themselves are privately owned by the inhabitants, and they collectively own the public structures within the *tulou*. Qiaofu Lou, Zhenfu Lou, and Nanyang Lou are owned by overseas Chinese, the first two are now

protected and managed by the local government with the permission of the owners.

Protection

Legal protection

In accordance with the Law of the People's Republic of China on the Protection of Cultural Relics, the State Council of the People's Government of Fujian Province, and the People's Governments of Yongding, Nanjing, and Hua'an Counties have designated the nominated properties as major historic sites under protection at the national, provincial, and county level by virtue of their historic, scientific, and artistic values.

In October 2003, the Ministry of Construction and the State Administration of the Cultural Heritage of the People's Republic of China declared Shangban Village in Suyang Township (Nanjing County), where Tianluokeng *Tulou* Cluster is located, to be a famous historic and cultural village of China. The People's Government of Fujian Province designated Hukeng Township (Yongding County), where Hongkeng *Tulou* Cluster, Yanxiang Lou, and Zhenfu Lou are situated, in May 1999 as a famous historical and cultural town at Provincial level.

Study of the relevant laws and regulations supplied by the State Party indicate that the level of statutory protection afforded to the nominated properties at national and provincial level and the supporting administrative structures is adequate. However ICOMOS considers that planning protection is needed for the wider landscape setting of the *tulou* beyond the protection afforded to the immediate setting by the buffer zones.

Effectiveness of protection measures

Overall the measures are effective but will need to be applied to ensure sustainable development of the buildings and their landscape surroundings.

ICOMOS considers that the protective measures for the nominated properties are adequate but will need to be applied to the wider landscape to protect fully integrity and authenticity.

Conservation

Inventories, recording, research

Detailed inventories are maintained by the relevant County authorities (see "Management" below), and these have resulted from research and recording work by those bodies. They have been fundamental in the preparation of a wide range of interpretive materials at all levels. Of special importance is the work of the Nanjing Cultural Research Association (see "presentation" below).

Present state of conservation

Before the 1970s the maintenance and repair of the Fujian *tulou* was carried out almost entirely by the inhabitants. In the 1980s the local governments created administrative cultural heritage committees, as a result of

which protection and management systems were set up in which the leading role is taken by government bodies but in which the inhabitants are actively involved.

Active conservation measures

Some, if not all, of the nominated properties are being subjected to a policy of "beautification" or "greenification." In Nanjing, for example, non-*tulou* have been resurfaced and repainted to blend in with the *tulou*, whilst in the buffer zones "non-harmonious" constructions and facilities are being moved or dismantled. In Hua'an, discussions are in progress on the possibility of replacing a perfectly good road with one that will look better.

It is instructive to revisit images of the *tulou* from the 1980s and 1990s, which bear witness to activities taking place immediately outside the *tulou* in the form of farm-related lean-tos, farming equipment, and stacks of wood. Inside the *tulou*, in the semi-public courtyard, an array of farm and related produce fill the space.

The changes reflect a move away from the *tulou* being at the centre of agricultural activities. As there is such a clear and harmonious link between the *tulou* and their farmed and forested surroundings, conservation measures need to address ways in which the traditional methods and scale of farming might be sustained.

Greater attention needs to be paid to the drawing up of guidelines for those responsible for carrying out repairs. The quality of the craftsmanship is not at issue, but some guidance is needed in the choice of paint colours and types, for example. There appears to be no agreement on the best way to proceed when upgrading elements of *tulou*: should upgrades be in a traditional style using traditional materials or in a modern style using modern materials? These problems might be solved by the compilation of some form of illustrated "Best Practice Guide" so as to ensure that upgrading is carried out in ways that have minimal impact on site authenticity and integrity.

A related problem is the design of new visitor facilities such as public toilets, visitor centres, or car parks at *tulou* properties. This could form part of the "best practice guide" in the form of acceptable and unacceptable designs.

ICOMOS considers that the conservation policies put into practice by central and county administrations are in general adequate and appropriate to the nature of the property, and ensure the full involvement of local inhabitants. However, care needs to be exercised to avoid activities that may have an adverse impact on the authenticity and integrity of *tulou* by means of policy guidelines and there needs to be more proactive measures to ensure the conservation of farming and forestry practices that create their landscape setting.

Management

Management structures and processes, including traditional management processes

Each of the three Counties (Yongding, Nanjing, and Hua'an) has a management structure in place, supported by a museum. These have been established by means of statutory management measures for the *tulou* promulgated by the Provincial and County administrations. They lay stress on the role of the local communities in the management and conservation of the properties in which they live.

For example, the *Management Measures of Fujian Province* requires the "owners and users of Fujian *tulou*" to install appropriate fire-fighting equipment and establish "a force of the masses" specialized in public security, defence, and fire fighting. They are also responsible for the repair and maintenance of the properties. Only where they do not have the necessary resources will the local authority undertake the rescue and repair work. They are also enjoined to maintain the original appearance of the *tulou* when carrying out repairs and maintenance.

Policy framework: management plans and arrangements, including visitor management and presentation

There are Protection Plans in force in each of the three Counties that correspond with paragraph 108 of the *Operational Guidelines for the Implementation of the World Heritage Convention* (2005).

These Plans are the result of cooperation between the County People's Governments and, in the case of Yongding and Nanjing Counties, the National Centre of Historic City Studies of Tongji University and in Hua'an County with the Urban Planning and Design Institute of Tianjin University. The Counties also have Tourist Development Plans.

What is less clear is how the surrounding farm landscape is to be sustained. Currently the landscape both in the core and buffer zones is protected but management appears to be directed more at visual and environmental aspects rather than cultural ones. ICOMOS considers that plans for the sustainability of the landscape which respects local farming traditions needs to be better developed.

The counties, both together and singly, have produced a wide range of interpretative materials – from county brochures introducing *tulou* and scholarly publications investigating them in depth to CD-Roms extolling the *tulou* experience – and even a symphony celebrating the Hakka *tulou* (*Reverberation of the Earthen Building*).

Learning materials have been produced for children and young people (kindergarten, primary, and secondary levels) in all three counties, whilst each county has developed museums, either within nominated properties or in a central location. Nanjing has set up the Nanjing *Tulou* Cultural Research Association, which is charged with carrying out non-official academic research, holding public activities, and promoting the value of the *tulou*. Training courses are also available for tour guides.

Interpretive activities include demonstrations relating to farming activities, food preparation, and local crafts production. Related to such demonstrations there has been an attempt to re-enact such traditional ceremonies as weddings. Serious subsidized attempts are being made to revitalize such skills as metalwork and puppetry.

However, ICOMOS has some misgivings about the nature and quality of some of the interpretation and presentation activities. There needs to be an overall plan at the provincial level to ensure consistency in site interpretation and presentation. From the brochures produced for a wide range of tourists and the county maps that plot the locations of *tulou* to the on-site signage, there should be consistency from county to county, nominated property to nominated property. Each county should certainly have its own distinctive mark, but the distinctiveness should be controlled by an overarching consistency in terms of design.

At the same time there should be clear differentiation between the nominated properties, including their settings. Ideally, each county's interpretation and presentation materials should develop and set the distinctiveness of their site(s). This approach should help local people and visitors better to understand the value of the serial listing – and encourage visitors to understand nominated properties within a more meaningful overarching context. The distinctiveness is especially important to acknowledge when it relates to different settlement groups (ie the Hakka as opposed to the Fulao) and different agricultural histories (tobacco, rice, and/or tea economies).

The on-site museums also suffer from inconsistency problems. Here once again, there should be a shared "platform" both in terms of interpretation and of presentation, but within the shared platform there should be clearly developed local (county) stories, ideally told by local residents, that reveal the uniqueness of the county's *tulou* and natural setting.

Resources, including staffing levels, expertise and training

Supervision of the implementation of the protection and tourism plans and other statutory regulations is the responsibility of the respective county administrations. One of their duties is planning the creation of new villages so as to minimize the heavy population pressure on the *tulou*.

A total of 220 people work for the Fujian *tulou*, of whom 62 are experts or professional technicians and 39 are engaged in maintenance and management.

Funding for the protection and administration of the Fujian *tulou* comes from four main sources:

- i. Grants from Government bodies at various levels in accordance with the approved protection and management plans.
- ii. Appropriations for special projects relating to the improvement of the environments of the properties and installation and management of accessory installations.
- iii. Funds provided by the communities of the *tulou*.

- iv. Funds raised from individuals, overseas Chinese, and enterprises.

Expertise and training in conservation and management comes from Chinese and foreign teachers and experts. Each county organizes an annual training workshop. Local management and conservation personnel also take part in specialized training courses elsewhere in the People's Republic.

ICOMOS considers that the overall management system for the property is adequate, involving both government administrative bodies and local communities. ICOMOS however recommends that plans for the sustainability of the farming landscape that respect local farming traditions needs to be better developed. ICOMOS recommends that there should be an overall plan at provincial level to ensure consistency in site interpretation and presentation.

6. MONITORING

The key indicators for measuring the state of conservation of the Fujian *tulou* are the following:

- Conservation conditions;
- Structural stability;
- Roof leaking and worm infestation;
- Meteorology;
- Hydrographic conditions;
- Atmosphere and water pollution;
- Vegetation condition;
- Visitor numbers.

Monitoring is carried out by the relevant departments (meteorological, hydrological, environmental protection, forestry, heritage management, and tourism) of the county administrations.

The cultural heritage departments undertake protective patrolling and monitoring duties on both the *tulou* and their environments. Wider studies, covering areas lying outside the buffer zones, are performed by county construction bureaux. In addition, special projects are organized from time to time with scientific research institutions and university departments, making use of appropriate high technologies.

In the opinion of ICOMOS, there is a need for a more rigorously implementation of this monitoring system. For example, it is concerned whether at Nanjing, for example, once a year is frequent enough for “completeness rate of conservation,” “roof leakage and termite eating” and “vegetation state” to be monitored? It would welcome more information on how it is proposed that the “environment and landscape” should be monitored.

It is proposed therefore that there should be a one-year critical re-evaluation of the existing monitoring system, followed by the production and implementation of an updated system.

ICOMOS considers the monitoring measures for the property are in general adequate. However, there should be a one-year critical re-evaluation of the system in detail.

7. CONCLUSIONS

Recommendations with respect to inscription

ICOMOS recommends that Fujian *tulou*, China, should be inscribed on the World Heritage List on the basis of *criteria (iii), (iv) and (v)*.

Recommended statement of outstanding universal value

The nominated *tulou*, as most representative and best preserved examples of the *tulou* of the mountainous regions of south-eastern China, have outstanding universal value for the following:

- The large, technically sophisticated and dramatic earthen defensive buildings, built between the 13th and 20th centuries, in their highly sensitive sitting in fertile mountain valleys, are an extraordinary reflection of a communal response to settlement which has persisted over time.
- The *tulou*, and their extensive associated documentary archives, reflect the emergence, innovation, and development of an outstanding art of earthen building over seven centuries.
- The elaborate compartmentalised interiors, some with highly decorated surfaces, met both their communities' physical and spiritual needs and reflects in an extraordinary way the development of a sophisticated society in a remote and potentially hostile environment.
- The relationship of the massive buildings to their landscape embody both *Feng Shui* principles and ideas of landscape beauty and harmony.

Criterion (iii): The *tulou* bear an exceptional testimony to a long-standing cultural tradition of defensive buildings for communal living that reflect sophisticated building traditions and ideas of harmony and collaboration, well documented over time.

Criterion (iv): The *tulou* are exceptional in terms of size, building traditions and function, and reflect society's response to various stages in economic and social history within the wider region.

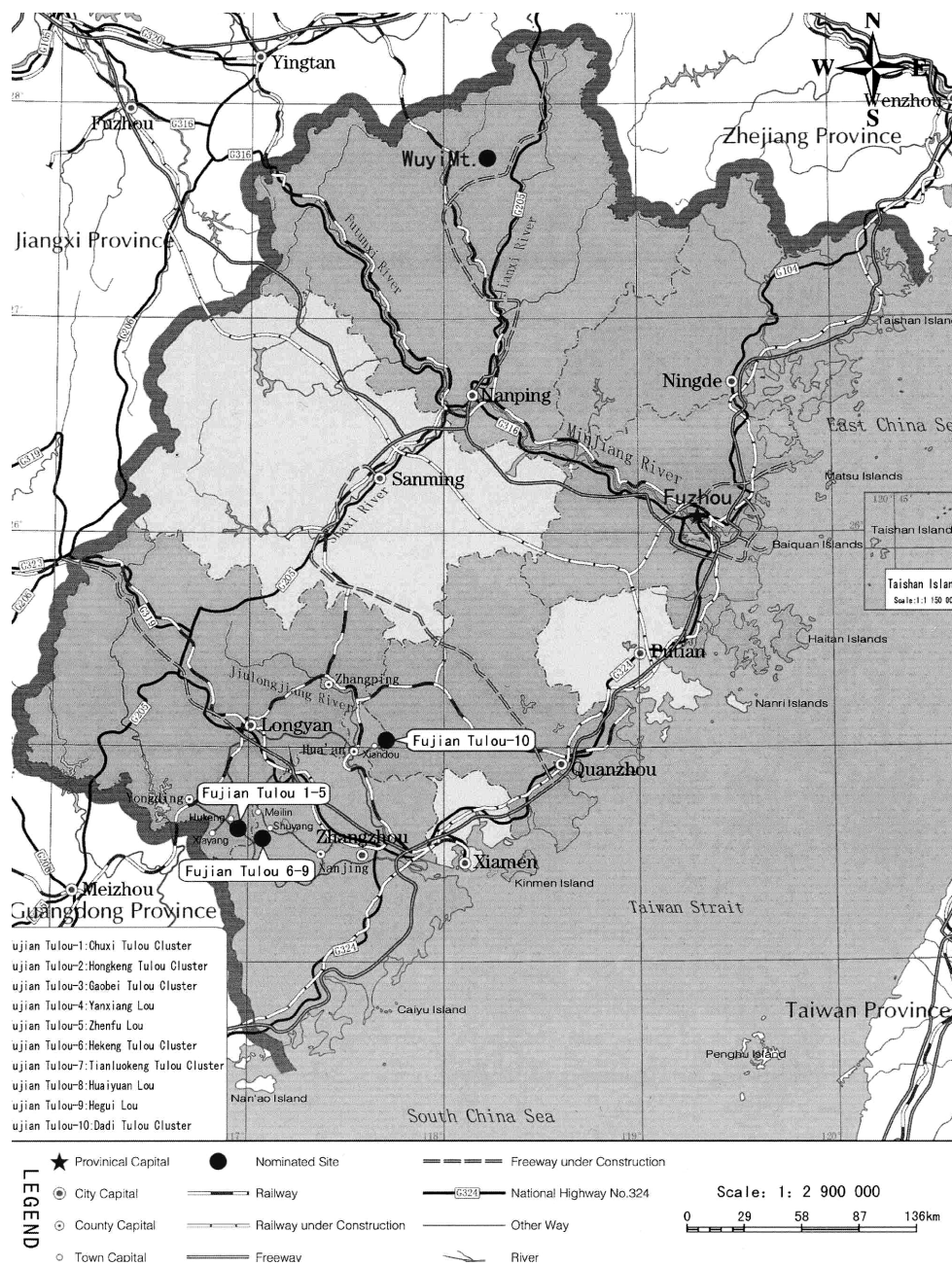
Criterion (v): The *tulou* as a whole and the nominated Fujian *tulou* in particular, reflect, in terms of their form as a unique reflection of communal living and defensive needs, and in terms of their harmonious relationship with their environment, an outstanding example of human settlement.

The authenticity of the *tulou* is related to sustaining the *tulou* themselves and their building traditions as well as the structures and processes associated with their farmed and forested landscape setting. The integrity of the *tulou* is related to their intactness as buildings but also to the intactness of the surrounding farmed and forested landscape – into which they were so carefully sited in accordance with *Feng Shui* principles.

The legal protection of the nominated areas and their buffer zones are adequate. The overall management system for the property is adequate, involving both government administrative bodies and local communities, although plans for the sustainability of the landscape that respect local farming and forestry traditions needs to be better developed.

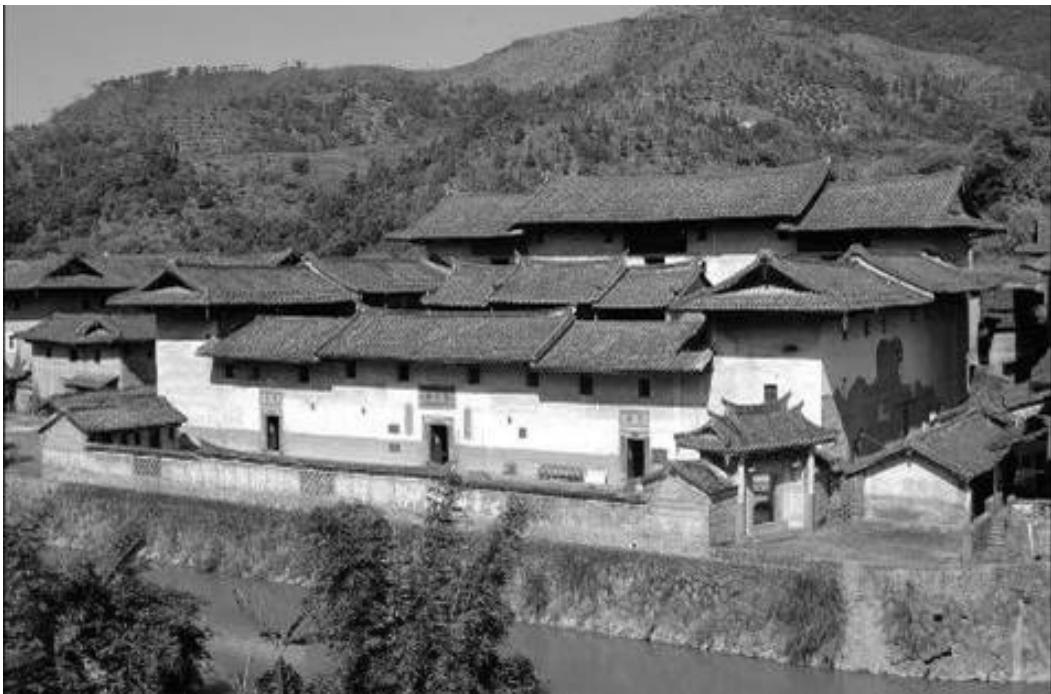
ICOMOS further recommends that the State Party give consideration to the following:

- As one of the main potential risks to the property is increased visitor numbers, there is a need to ensure that tourism protection plans are adhered to.
- Care needs to be exercised to avoid maintenance and conservation activities that may have an adverse impact on the authenticity and integrity of *tulou* by means of policy and “best practice” guidelines.
- Improved plans for the sustainability of the farming landscape should be developed that respect local farming traditions.
- Given the importance of the landscape setting of the *tulou*, consideration should be given to the protection of the wider setting of the property as well as the core and buffer zones.
- There should be a one-year re-evaluation of the monitoring system in detail.
- A coordinated overall interpretation and presentation plan at the provincial level is needed to ensure consistency in site interpretation and presentation. This should ensure consistency in quality and style from county to county, so as to create a recognizable image in the eyes of visitors and local inhabitants.





Tianluokeng Tulou Cluster, general view



Fuyu Lou



Huaiyuan Lou



Interior of Ruiyun Lou