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## Historic Monuments of Dengfeng (China)

### No 1305rev

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*Official name as proposed by the State Party:*

Historic Monuments of Dengfeng in “The Centre of Heaven and Earth”

*Location:*

Dengfeng, Zhengzhou City, Henan Province, People's Republic of China

*Brief description:*

Eight clusters of buildings spread out over 40 square kilometres around the lower slopes of Mount Songshan, and adjacent to Dengfeng city, include three Han Que gates - remains of the oldest Chinese state religious buildings, the tower of Songyue temple - the oldest Buddhist pagoda in China, the Zhongyue Temple - one of the earliest Taoist temples, the Shaolin Temple - with its stone pagoda forest and association with martial arts, the Songyang Academy - with perhaps the oldest extant cypress trees, the Huishan Temple, and, slightly set apart to the south-east, the Zhougong Sundial Platform and Dengfeng Observatory.

Many of the buildings were built under the patronage of Chinese Emperors who through nine dynasties offered sacrifices to Songshan as the central sacred mountain of China. The buildings variously reflect the perceived centre of heaven and earth, the power and influence of the mountain as a centre of mountain worship, and the birthplace of Chan (Zen) Buddhism.

*Category of property:*

In terms of categories of cultural property set out in Article I of the 1972 World Heritage Convention, this is a serial nomination of eight *groups of buildings*.

#### 1. BASIC DATA

*Included in the Tentative List:* 29 November 2001

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

*Date received by the World Heritage Centre:*

21 January 2008

21 January 2010

*Background:* This nomination was referred back at the 33<sup>rd</sup> session of the World Heritage Committee (Seville, 2009):

Decision: 33 COM 8B.13

1. *Having examined Documents WHC-09/33.COM/8B and WHC-09/33.COM/INF.8B1,*

2. *Referred the nomination of Historic monuments of Mount Songshan, China, back to the State Party in order to allow it to:*

a) *Consider further the relationship between some of the nominated sites and the central China sacred mountain, Mount Songshan and;*

b) *Consider how a nomination of some of the selected sites together with part of the mountain might reflect their value as an ensemble that manifests the power and influence the mountain had in constitutional, religious and ceremonial terms and how the simple worship of nature was transformed into a force that legitimized imperial power, under the guidance of Confucian thought;*

c) *Consider nominating the Observatory on its own as a site associated with technological development and the development of scientific ideas;*

3. *Recommends that, as the collection of ancient trees is a key quality of the area, greater recognition, survey and research should be provided to establish its cultural value as part of any future nominated ensemble;*

On 21 January 2010 the State Party submitted a third volume of supplementary information. This volume is entitled Historic Monuments of Dengfeng in “the Centre of Heaven and Earth” and provides a new overall justification for the property with further justification for the criteria, and also includes a further comparative analysis, comments on authenticity and integrity, a paper on the concept of the Centre of the Earth in the History of Chinese Astronomy and a detailed comparative analysis for the Dengfeng Observatory.

*Consultations:* ICOMOS has consulted its International Scientific Committee on Cultural Landscapes. ICOMOS also consulted the International Astronomical Union on the observatory and IUCN on the ancient trees.

*Literature consulted (selection):*

Chang, Chia-t'ai, *Shaolin Temple*, 1983.

Shahar, Meir, *The Shaolin monastery: history, religion and the Chinese martial arts*, 2008.

Xu, Wenbin, *Sichuan Han dai shi que: Stone que: towers of Han dynasty in Sichuan province*, 1992.

*Technical Evaluation Mission:* 12-16 September 2008

*Additional information requested and received from the State Party:* ICOMOS sent a letter to the State Party on 9 October 2008 on the coordinates of the nominated property, on how the overall nomination of the five sacred mountains of China will be related to the current nomination, and on the identification of ancient trees. The State Party replied on 13 November 2008 with 24 pages of supplementary information and the responses were included in ICOMOS's first evaluation report to the 33<sup>rd</sup> session of the World Heritage Committee (Seville, 2009).

ICOMOS sent another letter to the State Party on 19 December 2008 to clarify the information already supplied, in particular how *'Mount Songshan gave birth to the concepts of "Central State" ... and "Central Plain"'*.

The State Party responded on 2<sup>nd</sup> March 2009 with a second volume of supplementary information amounting to 36 pages. This included different justification for the criteria and a shift in the overall justification for the nomination away from the initial idea of Mount Songshan and religious sacrifice being the underpinning of the nominated sites, to an emphasis on the links to Dengfeng city and the idea of its association with the centre of heaven and earth.

This second volume of supplementary information requested two changes to the nomination: the name should be changed from Historic Monuments of Mount Songshan to Historic Monuments of Dengfeng in "the Center of Heaven and Earth"; and the Observatory, a component part of the serial nomination, should be described as Zhougong Sundial Platform and Dengfeng Observatory.

This second volume of supplementary information submitted by the State Party was almost a new nomination in the way it changed the focus of the serial property. In its first evaluation ICOMOS considered that more time than was available to it at a late stage in the nomination process, was needed to assess adequately this very different proposal and accompanying supplementary information through expert study. ICOMOS recommended that the Committee should defer the nomination in order to allow the State Party to articulate more clearly the justification for Outstanding Universal Value.

*Date of ICOMOS approval of this report:* 17 March 2010

## **2. THE PROPERTY**

### ***Description***

In the central plain of China, Mount Songshan, the central sacred mountain, rises to 1,500 metres. The six main peaks of Mount Songshan stretch for 64km between the cities of Luoyang and Zhengzhou. The slopes rise steeply from the valley and are thickly clad with trees. On the lower slopes between two of the

peaks, Mount Shaoshi and Mount Taishan, are eight clusters of buildings, spread over an area of around 40 square kilometres.

The eight clusters of buildings or sites, totalling 367 structures, and spread out over 40 sq km, include three Han Que gates - remains of the oldest Chinese state religious buildings, the tower of Songyue temple - the oldest Buddhist pagoda in China, the Zhongyue Temple - one of the earliest Taoist temples, the Shaolin Temple with its stone pagoda forest and association with martial arts, the Songyang Academy with perhaps the oldest extant cypress trees, the Huishan Temple, and, slightly set apart to the south-east, the Zhougong Sundial Platform and Dengfeng Observatory.

Each of the collection of ritual, scientific and educational buildings belongs to different cultural and/or religious schools and they do not have a single common theme. They are variously related to the perceived centre of heaven and earth, a circular area some 40 km in diameter centred between two peaks of Mount Songshan and including Dengfeng city, to the power, influence and attraction of Mount Songshan as a centre of mountain worship, to the centre of oriental Confucian culture, and to the birthplace of Chan (Zen) Buddhism.

From ancient times the idea of the 'round heavens and square earth', was a crucial part of the idea of cosmic structure in China. Heaven and earth were separate but connected to each other and the link between was seen as either big trees or high mountains. This concept played a role in the development of Chinese astronomy and also influenced political, cultural and religious progress. It also prompted the search for the centre of the flat earth. There were several contenders. One was Luo, later renamed Luoyi in present day Luoyang. This was identified in the Zhou Dynasty (c 11<sup>th</sup> century BCE-221 BCE) and became its capital.

The location in Luoyi was not accepted by all and various other hypotheses emerged. One, the Gai Tian hypothesis, related the centre to beneath the north star and identified it as Mount Kunlun. A later hypothesis, the Han Tian, that emerged in the Western Han Dynasty (206BCE -25CE), was related to the idea that the distance between stars and the centre remained the same, and thus only astronomy conducted at the centre of the earth was reliable. Based on this hypothesis, Luo Xiahong and fellow astronomers took observations but these are not recorded.

Later scholars took up the Han Tian hypothesis and offered two sites: Luoyi and Yangcheng. The latter came to have greater influence in the history of Chinese astronomy. Yangcheng is present-day Gaocheng in Dengfeng (20km south-east of Mount Songshan). The two sites relate to different interpretations of the *Rites of Zhou* in which Emperor Zhou set out the length a shadow should reach at the summer solstice as a way of identifying the centre. Later scholars interpreted his criteria to equate to Yangcheng rather than his own

capital Luoyi. Surveys conducted by Guo Shoujing in the Yuan Dynasty (1206-1368) to reform astronomy used Yangcheng as a base and an observatory was constructed and poles erected for measurement at what is now Dengfeng.

The concept of the centre of heaven and earth is evidenced in murals, stone engravings, and stele inscriptions. Literary references reveal the long academic debate about the concept. Some scholars from the northern Song Dynasty (960 and 1279), also related it to nearby Mount Songshan, and this is now acknowledged as the natural component of the centre of heaven and earth, and thus the central sacred mountain. The supplementary information provides a plan showing the area considered to be the centre of heaven and earth, centred around the Huishan Temple between the two peaks of Mount Songshan, rather than on Dengfeng Observatory (although in the nomination dossier it is suggested that the Observatory was at the actual centre).

The concept of the centre persisted in astronomical thinking until the Ming Dynasty (1365-1644) when western ideas about a spherical earth were adopted. Nevertheless the general concept persisted as it was linked to the idea of the centre of national power.

The area around Yengcheng has been considered through Chinese history as the Zhongyan (Central Plain) and from where the country developed and expanded to become Zhongguo – the state located at the centre of the world. The Xia Dynasty, the first Chinese dynasty that ruled from around 2,000 BCE to around 1,600 BCE, was said to have its capital in Yengcheng – although its precise position has not been established. Even though the capitals of later dynasties were located elsewhere, the association between Dengfeng and the centre of the country, and of the world, persisted. The third volume of supplementary information provides a diagram of the circular area considered to encompass the centre of heaven and earth. This is a circle approximately 40km in diameter, centred roughly on the Songyue Temple between two peaks on Mount Songshan, and including Dengfeng city.

Songshan was revered as a holy mountain where immortals lived, and where emperors offered sacrifices to heaven and earth, to communicate with gods, and to pray for the stability of their country. An inscription records Emperor Wu offering sacrifices there after conquering the Shang Dynasty. By no later than the early Western Zhou Dynasty (11th century BCE-771 BCE), sacrifices had begun to be offered to the mountain.

From then on, and reinforced by Emperor Xuandi of the Han Dynasty (206 BCE–220 CE) designating in 61 BCE Mount Songshan as the central of the five sacred mountains, (the others being Taishan in the east, Hengshan Bei in the north, Huashan in the west, and Henshan Nan in the south), emperors continuously

offered sacrifices. Between King Wu of the Zhou Dynasty and the end of the Qing Dynasty in AD 1912, 68 emperors are recorded as having visited or offered sacrifice to Mount Songshan.

In Chinese feudal society imperial rulers exercised tight control over cultural and religious schools and used them to reinforce power and social order. In the Han Dynasty, Confucianism was adopted as the over-arching school. The simple worship of nature was transformed into a force that legitimised imperial power, under the guidance of Confucian thought. Two of the three Han Que gates provide physical evidence of buildings associated with imperial sacrifices to the mountain with vivid depictions of the festivities associated with rituals. When Taoism and Buddhism emerged, the struggles between them were 'coordinated' by Imperial power. The sequence of buildings in and around Mount Songshan associated with the formation of Taoism into a religion (the Zhongyue Temple) and with Buddhism (the Shaolin Temple, the birthplace of Chan Buddhism) is seen to reflect the jostling for Imperial favour as well as the institutionalisation of sacred rites.

Mount Songshan is symbolically referenced in the layout of three of the sites (Zhongyue Temple, Taishi Que, and Shaoshi Que) through the axial alignments of monuments to the mountain peaks, through inscriptions on steles and temple headboards, through pictorial stone engravings, in murals and also through literature, poetry and songs.

The nominated buildings were initially constructed over a span of eighteen centuries between 118 AD and the 20<sup>th</sup> century. The Tishi, Shaoshi and Qimu Gates have survived since Han times, while Zhongyue Temple and Songyang Academy, initially built in the Jin Dynasty (1115-1234), were reconstructed over succeeding centuries, lastly in the Qing Dynasty (1644-1912). The Zhougong Sundial Platform was constructed in the 8<sup>th</sup> century while the Dengfeng Observatory was built between the 13<sup>th</sup> and 16<sup>th</sup> centuries.

Many of the buildings were constructed as a result of imperial patronage, using top designers and craftsmen and following the best building standards and forms that could only be used in the highest status structures in the hierarchical system.

Collectively the nominated buildings are said to reflect the power and influence the area had in constitutional, religious, ceremonial, educational and astronomical terms.

In architectural terms, the Buddhist pagodas of the Songyue and Shaolin Temples have come to be seen as models, copied within China and further afield.

Within some of the sites are a collection of ancient trees, including around fifty that are considered to be over 2,000 years old, and a few that are reputed to have an age as high as 4,000 years.

Although the concepts of Dengfeng being the centre of heaven and earth and the birthplace of Chinese civilisation and of Mount Songshan being revered as a sacred mountain underpinned the imperial patronage and the development of temples and other buildings, neither the city nor the mountain itself form part of the nominated property. At a later date the mountain may be nominated as part of an extension of Mount Taishan to encompass the five sacred mountains, (as indicated on the current Tentative List of China).

The property consists of 367 structures within the following eight sites:

- *Taishi Que Gates and Zhongyue Temple*
- *Shaoshi Que Gates*
- *Qimu Que Gates*
- *Songyue Temple Pagoda*
- *Architectural Complex of Shaolin Temple (Kernel Compound, Chuzu Temple, Pagoda Forest)*
- *Huishan Temple*
- *Songyang Academy of Classical Learning*
- *Zhougong Sundial Platform and Dengfeng Observatory*

These will be considered separately:

#### *Taishi Que Gates and Zhongyue Temple*

The Taishi Que Gate (Que gates are those erected in front of a tomb or temple) was originally one of a pair of buildings at the foot of Huangghai peak of Mount Taishi that flanked the entrance to Taishi temple, used for sacrifices to the mountain. Built in 118 AD the gate is of grey stone but in imitation of a wooden structure, and carved in low relief on all four sides with vivid and dramatic images of beasts, spirits, and trees, that were perceived to have the power to ward off evil spirits. Although much weathered, one inscription which remains legible contains a eulogy to the central sacred mountain. The gate is protected by a shelter building.

Thirty-four ancient stone Han Que Gates remain in China, of which three are at Mount Songshan; the remaining ones were erected for private tombs. The three gates within the nominated property are the only surviving ceremonial structures from the Han era.

The Zhongyue temple replaced the Taishi temple at the end of the original track from the Taishi Que gate, a simple narrow earth route flanked by cypress trees. The Zhongyue Temple was originally constructed in the 5<sup>th</sup> century when Kou Qianzhi reorganised Taoist preaching and formalised Taoism as a religion. It has been rebuilt many times but its layout can be attributed to the Jin Dynasty (1115-1234). Its buildings relate to its last reconstruction in the Qing Dynasty (1644-1912) in what is known as the 'official architectural style' of that dynasty. Some buildings were reconstructed in the 20<sup>th</sup> century. There are 39 buildings, arranged in multiple courtyards along a central axis, many decorated with

carvings and glazed tiles. The Junji Hall, a place for offering sacrifices to the God of Zhongyue is the largest building on any of the sacred mountains.

The layout of the temple is recorded in a stele map carved in 1200 and a second one carved in 1547. The number of courtyards on the central axis, the form and location of the sacrificing stage, and the site of the main halls in this overall plan seemed to have influenced the layout of temples on the other four sacred mountains.

Around the temple are forty-three ancient trees considered to be between 2,200 and 4,000 years old, and 330 cypresses planted between the Han and Qing dynasties.

Stele record building of the temples and the sacrificial addresses of Emperors, while others depict the sacred mountains or extol their virtues in poetry.

Two stone statues 1.2 metres high date from 118 AD and are the oldest surviving stone figures in China. Four even larger iron statues some 2.5 metres high date from 1054 AD.

#### *Shaoshi Que Gates*

This pair of Han Dynasty Que gates, constructed in 123 AD flanked the approach to the now demolished temple of Mount Shaoshi. They are similar in form and materials to the Taishi Que gate and likewise decorated in low relief with around 60 pictures surviving. These include two young women on galloping horses, part of a circus show, and an ancient game of football, known as *cuju*. The sculptures are in urgent need of conservation – see below. A new shelter building is proposed for these gates – see below.

#### *Qimu Que Gates*

This pair of Han Que gates flanked the path to Qimu temple which no longer survives. They were built in 123 AD in a similar style and materials to the Taishi gate. On their surfaces, 60 images have survived that depict cockfights, shows by troupes visiting from the Roman Empire, texts recording the curbing of a flood, and a prayer for rain to fall on the mountain. The gates are protected by a shelter building.

The Qimu Que gate was built in commemoration of the mother of Qi, wife of Yu, the legendary founder of the Xia Dynasty the first Chinese dynasty that ruled from around 2,000 BCE to around 1600 BCE.

#### *Songyue Temple Pagoda*

The large cream coloured brick pagoda is a dodecagonal structure with a roof of 15 overlapping eaves. Constructed on open ground, with Mount Taishi in the background and in the foreground streams and lush woods, it is visible from many directions.



The pagoda was built between 508 and 511 for an Emperor of the northern Wei Dynasty on the site of his temporary palace. The rest of the temple and palace do not survive. The design of the pagoda with its parabolic contour and advance tubular form is considered to be very innovative and became a model for many later pagodas. Its decoration of flame patterns and lions reflects influence from regions further to the west.

The pagoda is now surrounded by brick and timber buildings from the Qing Dynasty.

In the temple precincts are ancient trees, such as ginkgo, maidenhair, scholar and juniper, that are said to date from the Han Dynasty.

#### *Architectural Complex of Shaolin Temple (Kernel Compound, Chuzu Temple, Pagoda Forest)*

This very large complex on the north side of Mount Shaoshi presents a dramatic picture of red walls and green glazed tile roofs set amongst dense trees.

The Chuzu Temple was built to commemorate the first Patriarch of the Chan sect of Buddhism in 1125. It sought to re-establish itself after a major Buddhist purge by building at the centre of heaven and earth. Despite being repaired many times, the apron walls, sixteen octagonal columns - eight adorned with lively relief carvings of flowers, flying deities, Buddhas, peacocks and cranes, and the long relief behind the sacred platform, with landscape and figures showing the beauty of a mountain forest, all date from the Song Dynasty.

The Kernel Compound contains two small brick pagodas from the Song Dynasty. The remaining buildings date from the Ming and Qing dynasties. The large Ming Thousand Buddha Hall is decorated with an extensive mural depicting 495 arhats against mountains, clouds and flowing water.

The pagoda forest is a compound of stone or brick pagodas, each one built to commemorate an eminent monk. The name 'forest' reflects the number and density of these structures, which with their crisply carved tapered tops resemble a forest of trees. In the 'forest' and nearby are a total of 241 pagodas, some rising to ten stories and many elaborately carved, erected during seven dynasties between the Tang and Qing, over almost 13 centuries (520-1803). As a group, the pagodas reflect the evolution in style of tomb pagodas and the gradual fusion between the Chan sect and other cultures.

The overall composition of the Shaolin temple was seen as indicating how a large temple should be, and was followed by Zen temples in other places.

Numerous cypress pines (known as the Chinese Arborvitae or *Cupressus arborvitae*) grow amongst the pagodas and some are causing damage to the pagoda

structures. A Chinese wingnut tree is considered to be around 2,000 years old.

#### *Huishan Temple*

In beautiful scenery below the Jicui peak of Mount Taishi, the wooden Huishan Temple was built in the Yuan Dynasty (12<sup>th</sup> century), from buildings constructed as a temporary China imperial palace in the Northern Wei Dynasty (5<sup>th</sup> century AD) and on the site of the living quarters of monk and astronomer Yi Xing. Eight structures survive on the central axis, including screen wall, main gate, and the east and west wings of the main hall, built on a large platform.

The Huishan Temple is ranked as one of the four main temples of Mount Songshan along with Shaolin, Songyue and Fawang (not included in the nominated area). Although repaired frequently in the Ming and Qing dynasties, the main elements of its timber structure have survived as prime example of Yuan architecture.

#### *Songyang Academy of Classical Learning*

At the foot of the Junji peak of Mount Taishi, and aligned to it, the Songyang Academy of Classical Learning is on the site of the Songyang Temple built in the Northern Wei Dynasty (5<sup>th</sup> century). The Academy was created in the later Tang Dynasty and by the Song Dynasty was considered as one of the four great academies of classical learning in China disseminating Confucian theories and culture. It is claimed that the academy contributed substantially to the dissemination of Confucianism into other parts of China through the Songyang doctrines.

The surviving buildings date from the Qing Dynasty (17<sup>th</sup> century). The simple buildings of grey bricks and tiled roofs, arranged around five courtyards, are in typical Henan style. They enclose over 100 rooms. There is no doubt that the first built academy of Mount Songshan set up an example for all following private academies. Since it was privately owned, the Songyang Academy could not match the other official academies in terms of scale and size of buildings.

The Academy is located on the foothills of Mount Taishi surrounded by a landscape with low forests. Its layout is in an axial alignment to a mountain peak. Within the grounds are two 'General' cypress trees reputed to be 4,500 years old and the oldest trees so far identified in China. The rank of General was conferred on these two trees by a Han Emperor.

At the south-western side of the academy gate stands a Tang Tablet, erected in AD 744 in the Tang Dynasty (618-907); it is the largest stele in Henan Province and famous in Chinese handwriting history.

### *Zhougong Sundial Platform and Dengfeng Observatory*

The Observatory built in the Yuan Dynasty (13<sup>th</sup> century) is located some 15 km south-east of Dengfeng town on the outskirts of Gaocheng town beneath Gaocheng mountain.

It is purported to have been built under the orders of Kubla Khan, who selected twenty-seven sites to undertake nationwide astronomical observations. Only the Observatory in Dengfeng and another in Beijing were built in brick. The Observatory was designed by astronomers Guo Shoujing (1231-1316AD) and Wang Xun to measure the solstices in order to establish an accurate calendar. A contemporary text records that Guo Shoujing chose Dengfeng as one of the two most significant sites for astronomical observation, for Dengfeng was regarded the centre of Heaven and Earth.

Using their measurements and calculations, Guo Shoujing compiled in AD 1271 the *Shou Shi Calendar*, the most advanced calendar in the world at the time, and only five seconds different from calendars produced today from modern scientific analysis.

The Dengfeng observatory is built of grey brick and is designed as a huge quadrant. It retains all the features for its historic function – the bar for the sun's shadow and the water runnels that provided the water film for reflecting the shadow. At the foot of the platform is the dial laid out in blue stones.

To the south is the earlier 8<sup>th</sup> century Tang Dynasty Zhougong sundial platform. It is said that Nangong Yue built the monument to identify the spot where Zhougong measured the centre of Heaven and Earth.

Nearby is the Zhougong temple dating from the Ming Dynasty.

### **History and development**

Evidence for human occupation around the mountain dates back to Palaeolithic times with rich finds in, for instance, the Zhiji cave. During the Neolithic period, the mountain had one of the most advanced cultures in China, as demonstrated by finds related to the Longshan culture at Wangchenggang in Dengfeng. This evolved into the beginnings of what are seen as the earliest states in China and the Xia, Shang and Zhou dynasties – some of whose capitals, including Yangcheng, were around Mount Songshan. One of the two capitals of the Xia Dynasty was at Wangchenggang.

During the first few centuries after Buddhism was introduced into China in the Han Dynasty, many Buddhist temples were established around Mount Songshan, including Songyue, Shaolin and Huishan, and the Chan sect was spread from the Shaolin temple. The Region also played an important role in the development of Taoism.

The Buddhist temples as well as being associated with the dissemination of Buddhism are said to have had their historical significance heightened by their proximity to the centre of heaven and earth and to one of the later capitals, the city of Luoyi and to the beautiful landscape.

In the Tang Dynasty (618-907), Empress Wu decreed the god of Mount Songshan to be the 'Emperor of Central Heaven', whilst Emperor Xuanzong nominated the god as 'King of Central Heaven' and expanded the Zhongyue temple.

In the Song (960-1279) and Jin dynasties (1115-1234) there was further imperial support that led to rapid development of religions and temples and also the creation of the Academy of Classical Learning. The Yuan Dynasty saw the creation of 44 pagodas as well as the building of the Observatory.

In the Ming Dynasty (1365-1644) the religious structures reached their greatest extent and prosperity and nine halls and 143 pagodas still survive from this period. It was in this period that the concept of the centre of earth was abandoned as western ideas about a spherical earth were adopted.

During the Qing Dynasty (1644-1912), buildings were renovated or rebuilt and there are now more Qing structures than from any other dynasty, including 34 temple buildings. Construction came to an end during the Republic of China.

For around 2,000 years the process of building and rebuilding temples continued, even though the capitals of the dynasties since the 3<sup>rd</sup> century BCE had not been around Mount Songshan. Sixty-eight rulers visited the mountain, or sent their deputies to offer sacrifices, and men of letters, scholars and eminent monks were attracted to live in the religious establishments and in some cases commissioned buildings.

The area thus retained its influence not just for its association with a sacred mountain or for its association with the concept of the centre of heaven and earth in astronomical terms, but also due to Dengfeng being at the heart of the country and thus associated with the soul of China.

### **3. OUTSTANDING UNIVERSAL VALUE, INTEGRITY AND AUTHENTICITY**

#### ***Comparative analysis***

The comparative analysis of the original nomination dossier compares individual elements of the property with other sites, rather than comparing the whole ensemble.

The Han Que gates are compared with 34 other surviving Han gates constructed between AD 36 and AD 220. The nominated ones are seen to be the earliest of

their kind surviving in front of a temple of national importance.

The Songyue Pagoda is said to be the earliest of its kind in China and therefore to have no comparators.

The Chuzu Temple is the only surviving Song wooden temple to have been built in the Song Dynasty near the capital city.

The Pagoda Forest of the Shaolin Temple is compared to 15 other surviving well preserved pagoda forests and is seen to have by far the largest number of pagodas.

In the original nomination, no details were provided for the Beijing sundial, nor comparisons made with the Ulugh-Beg observatory in Samarkand or observatories in Korea. These were provided in the first volume of supplementary information. It is said that the observatory played a similar historical role and made a similar contribution to astronomical science and astronomical architecture as Cheom-seong-dae built in the 7<sup>th</sup> century in Gyeongju, Republic of Korea, Ulugh-Beg Observatory built in 1430 in Uzbekistan, Beijing Ancient Observatory in the period of Zhengtong in the Ming Dynasty (around the year 1442), Kassel Observatory built in 1560 in Germany, the Greenwich Royal Observatory built in 1675 in Great Britain, and the Jantar Mantar Observatory built in 1724 in Delhi, India.

The Songyang Academy is said to be one of the four oldest in China.

In the second volume of supplementary information Mount Songshan is compared to the other sacred mountains in China and is seen to be the only one with a collection of historic buildings of diverse architectural styles and cultural connections, built by the government or by the private sector. It is acknowledged that Mount Taishan is much better known than Mount Songshan, largely because of later literature. However it is suggested that only on Mount Songshan can the history of Buddhist architecture be discerned, through the Shaolin Temple, Songyue pagoda and Huishan Temple. It is further suggested that Mount Songshan gives a more complete picture of ritual and sacrificial buildings than any of the other sacred mountains.

Although it is acknowledged that elsewhere in China there are substantial buildings associated with sacrificial rituals, these date from the Ming Dynasty. Mount Songshan thus provides much earlier evidence back to the Han Dynasty.

Comparisons with other sacred mountains outside China indicate that Mount Songshan is differentiated by its multiple faiths. Within China it is compared to Mount Wudang which has exquisite buildings of the Ming Dynasty built under imperial patronage. Mount Songshan does not have buildings of this imposing size or grandeur but it is seen to have buildings which in various ways

were influential – such as in the diffusion of the Chan sect.

In the original nomination the State Party stressed the importance of the associations between the various buildings and the sacred mountain. The later temple buildings could be said to be a continuation and reflection of the mountain's central role in the development of religious ceremonies. A strong case had not however been made for linking the Academy and the Observatory to the mountain in terms of patronage or sitting.

In the second volume of supplementary information provided, the emphasis changed from links between the nominated sites and the sacred mountain to the links between the sites and Dengfeng as the centre of heaven and earth, and the name was changed to reflect this. The assembly of buildings is said to reflect the power of Dengfeng as a cultural centre, related to the memory of it as one of the earliest capitals of China and as being the centre of heaven and earth. Thus the temples and the academy are a reflection of Dengfeng's role as a cultural centre and the observatory is related to the astronomical measurement confirming Dengfeng's role as the centre of heaven and earth.

China has had many capitals of which eight are acknowledged as great ones (not including Dengfeng, whose precise location is not known with certainty) and several have connotations with the notion of 'centre' such as Xi'an described as 'the city sitting straight under the sun', or 'the center of heaven' in literature; Beijing's Forbidden City, the supreme imperial palace in the Ming and Qing Dynasties, was also regarded as the centre of world; Zhumadian, the neighbouring city of Dengfeng in Henan province also once proclaimed itself as the 'the centre of Henan Province' and 'the centre of the world'.

Although undoubtedly Dengfeng has for many centuries been associated with the idea of the centre of heaven and earth, that does not mean that everything associated with Dengfeng can be said to exhibit Outstanding Universal Value. The concept of heaven and earth is an idea: the issue is how far the nominated sites can demonstrate an idea.

What needs to be set out in more detail is how the sites have been chosen from within the circular area perceived to be the centre of heaven and earth, within which are other sites, such as two mentioned in the third volume of supplementary information. These are the Buddhist Fawang Temple which it is said could be added to the ensemble and has not been included in the current nomination as the condition needs to be improved, and an 'ancient capital' close to the Dengfeng Observatory for which insufficient studies have so far been undertaken.

ICOMOS considers that the comparative analysis has not shown that individually any of the components (apart from the Observatory) could be said to have Outstanding

Universal Value – although all are exceptional in some way.

However the concept of heaven and earth is a unique concept that cannot be paralleled elsewhere. What has not been set out is a comparison between the sites that make up the nominated series and other sites within the area perceived to be the centre of heaven and earth, in order to justify the choice of sites, nor the complete scope of the serial nomination, if more sites are to be added in the future.

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ICOMOS considers that the comparative analysis is adequate but needs to be augmented to justify the choice of serial components.

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### ***Justification of the Outstanding Universal Value***

In the original nomination, the property was considered by the State Party to be of Outstanding Universal Value as a cultural property for the following reasons:

- The Historic Monuments of Mount Songshan are a group of buildings that maintain a strong affinity with the mountain and are the best examples of ancient buildings for ritual, religious, scientific and technological and educational activities;
- As the first of their kind, the ritual buildings of the three Han Gates had a profound and far-reaching influence on the culture of East Asia;
- The Songyue Temple Pagoda, the architectural complex of the Shaolin Temple and the Huishan Temple reflect the development of Buddhist architecture in China and set an example for later constructions over Asia;
- The Songyue Temple Pagoda and the Shaolin Temple Pagoda Forest are classic elements of world architectural history;
- The murals in the Shaolin Temple display the history and significance of Shaolin Martial art;
- The Songyang Academy of Classical Learning is heir to the vanished academy culture and a testimony to the role of Mount Songshan as the centre of Confucian culture;
- The Observatory is China's oldest surviving astronomical observatory and demonstrates brilliant achievement of early astronomical history.

Although revised justifications for the criteria have been provided in the third volume of supplementary information, no revised formal justification of Outstanding Universal Value has been put forward. The name of the property has however been changed to the Historic Monuments of Dengfeng in the "Centre of Heaven and Earth" and in the supplementary text it is stated that the 'nominated ensemble of Historic Monuments of Dengfeng is first and foremost associated with the long-term exploration of the natural laws of earth and sky and not with mountain worship. Only after the confirmation of

Dengfeng's location as "The Centre of Heaven and Earth" did the rulers, by virtue of their location in this central place and of their high status, use the concept to legitimise and perpetuate state ideology and power. Then, as the various schools of thought accepted this cosmological concept, they also sought to use it to strengthen their own positions, serve their own interests, and extend their influence, resulting in a whole series of activities and products in that region. That is why in this nomination the sacred mountain *per se* is not a core element. The ensemble of the historic monuments concentrated here testifies to this long and continuous process of historic development'.

ICOMOS notes that this suggests that the first point of the original justification for Outstanding Universal Value has been changed to reflect the link between the property and the concept of the centre of heaven and earth rather than an affinity with the mountain.

ICOMOS considers that each of the second to sixth points applies differently to the elements of the nominated serial property.

The centre of heaven and earth was partly an astronomical concept but was also linked to the seat of imperial power. The capital of the Xia Dynasty was at Dengfeng – but precisely where that was is not clear. In the subsequent Zhou Dynasty both the seat and centre were possibly at Luoyi, the latter determined by Emperor Zhou. However later scholars suggested that Emperor Zhou may have considered the centre of heaven and earth to be at Dengfeng. (In one place the nomination text suggest that Dengfeng was identified as the centre of heaven and earth 3,000 years ago, whereas in Annex 1, where the intellectual background to this concept is set out, it is shown that Yangcheng (Dengfeng) became perceived as the centre much later). Even so, Dengfeng has long been seen to be associated with the centre of power in China and the centre of heaven and earth.

The natural attribute of the centre of heaven and earth is Mount Songshan, and worship of Mount Songshan was used by the Emperors as a way of reinforcing their power, and that of the area as the centre of heaven and earth.

The three ideas do therefore to an extent converge: the centre of heaven and earth in astronomical terms is used as a propitious place for a capital of terrestrial power, and Mount Songshan as the natural symbol of the centre of heaven and earth is used as the focus for sacred rituals that reinforce that earthly power.

ICOMOS considers that the issue is how the nominated series of 367 structures can manifest the concept of the centre of heaven and earth and its links with central power and with Mount Songshan. It is clear that the Dengfeng Observatory has a strong link with the astronomical concept, as does the Huishan Temple, which was built on the site where an astronomer monk lived although the current buildings do not date from his

time, as do the Han Que gates that materialise rituals associated with Mount Songshan.

For the remaining groups of buildings, the Songyue Temple, the Shaolin Temple and the Songyang Academy of Learning, the links are more tenuous. What is suggested is that the two temples were built at the centre of heaven and earth as such a location was seen to be good for their influence and that these and the Academy reflected Imperial patronage.

One of the difficulties highlighted by the State Party is that in the future all 72 peaks of Mount Songshan could be nominated as part of the five sacred mountains of China. There is therefore a consideration to try and separate the current nomination from that subsequent one and to show that the concept of heaven and earth can be separated from that of the sacred mountain. One scenario suggested by the State Party is that the three sites that are focused on the mountain (Zhongyue temple, Taishi Que and Shaoshi Que) could be detached from the present nomination and submitted later with the mountain, while the remainder are nominated for their association with the centre of heaven and earth. ICOMOS does not consider that it is desirable to separate the concept of the centre of heaven and earth from the concept of Mount Songshan and mountain worship as one concept supported the other.

How the five sacred mountains are to be nominated is still to be decided – whether as a serial nomination of separate properties, or as one single property. In the second volume of supplementary information, it was stated that only on Mount Songshan can the history of Buddhist architecture be discerned, through the Shaolin Temple, Songyue Pagoda and Huishan Temple and that Mount Songshan also gives a more complete picture of ritual and sacrificial buildings than any of the other sacred mountains. This suggests to ICOMOS that Mount Songshan should be nominated together with not only the three sites focused on the mountain but also the Shaolin Temple, Songyue Pagoda and Huishan Temples, and also the Fawang Temple and possibly others. Its association with the centre of heaven and earth would clearly also be a great significance.

However, as Mount Songshan is of huge extent the issue is whether it could be nominated sequentially: with some or all of the current nomination being inscribed on the List and with the peaks – which it is suggested are the backdrop to the built structures – being nominated later and being considered initially as a buffer zone – a suggestion put forward by the State Party.

Mount Songshan remains the physical focus for the nominated sites. The mountain and its link to the centre of heaven and earth create the binding force.

## *Integrity and Authenticity*

### *Integrity*

Integrity is related to whether all the elements necessary to represent outstanding universal value are present within the boundaries. As discussed below, as a serial nomination there needs to be a link between the individual elements of the nomination. In the original nomination this was the proximity of the sacred mountain, although the mountain itself is not included in the boundaries. In the subsequent supplementary information provided, the emphasis changed to focus on the proximity to Dengfeng, the centre of heaven and earth, as the key link.

Within each individual site, sufficient attributes remain to reflect their original layout, even though in most sites many of the individual buildings have been subject to several periods of re-building.

In terms of how as a group the attributes are linked to the proposed Outstanding Universal Value, ICOMOS considers that they do relate to the area associated with the concept of the centre of heaven and earth, although the area is considerably larger than the nominated property and a full justification for the choice of sites within that area has not been provided.

### *Authenticity*

Authenticity is related to the way the attributes truthfully reflect the value considered to be outstanding and universal. Individually, there is no concern over the authenticity of the elements in terms of their materials, religious associations, and spatial layout. However for the overall assembly of monuments ICOMOS considers that they do not readily convey in an obvious way the concept of the centre of heaven and earth, although some of the sites are related to the physical attributes of the concept – the mountain and its associated religious practices.

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ICOMOS considers that the conditions of integrity and authenticity have been met but that the significant shifts offered by the State party concerning the justification for the series in the sequence of supplementary documents have not allowed the basis of the series and the logic of the selection of the series to be clearly expressed.

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### *Criteria under which inscription is proposed*

The property is nominated on the basis of cultural criteria (i), (ii), (iii), (iv) and (vi). The third volume of supplementary information included new justifications for these criteria. The State Party states that although it considers that criteria (iii) and (vi) are the most prominent in justifying the nominated property, it has provided justification for all five.

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

This criterion was justified by the State Party in the original nomination on the grounds that Mount Songshan is one of the birthplaces of Chinese civilisation. The architectural complexes around it are masterpieces of ritual, religious, scientific/technological and educational buildings and their components. As the earliest and finest examples of different architectural structures, they represent outstanding human genius and are masterpieces of the world's architectural history.

In the supplementary information this criterion is justified by the State Party on the grounds that the outstanding astronomical and calendar achievements of Dengfeng Observatory and Zhougong Sundial Platform, as well as the high attributes of the other associated heritage properties, justify this criterion.

ICOMOS considers that as a serial nomination of 367 structures in eight sites, it cannot be justified to consider this criterion if it is seen mainly to apply to two structures. The State Party acknowledges that not all of the sites can be said to meet criterion (i) and ICOMOS agrees with this.

From the supplementary material provided, ICOMOS does however consider that the observatory could on its own justify this criterion for its technological achievement.

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ICOMOS considers that this criterion has not been justified for the serial nomination but could be justified for the observatory alone.

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*Criterion (ii): exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design.*

In the original nomination, this criterion was justified by the State Party on the grounds that the buildings of Mount Songshan have profoundly influenced the architecture of ritual, religious, scientific, technological and educational buildings. In particular the sacrificial and Buddhist buildings have influenced not only the rules and systems of religious buildings, but also cultural traditions; neo-Confucianism originating from the Academy played an important role in the rulers' autocratic control over people's thinking, while astronomical observation bears testimony not only to the formation, promotion and application of astronomical theory but also the planning, construction, and development of astronomical structures. It is also suggested that as a physical place of the centre of heaven and earth, Dengfeng has unmatched status compared to observation spots in any other capital cities through all dynasties.

In the supplementary information, this criterion was justified by the State Party on the grounds that the

nominated sites demonstrate that they both received influence from foreign cultures and exerted influence on the development of other regions in culture, science, and technology. The Dengfeng Observatory shows evidence of astronomical instrument design from Indian and Central Asia, whilst calendars derived from the measurements at the Observatory spread to many other nations; many structures exhibit the introduction and diffusion of the highly influential Chan or Zen Buddhism as well as the perfect fusion of Chinese and Indian architectural art and craft displayed through Songyue Temple Pagoda, and the largest Confucian Academy founded herewith influence on the cultures of China and neighbouring countries.

ICOMOS considers that the Buddhist buildings do exhibit an remarkable interchange of ideas between the Indian subcontinent, China and south-east Asia, but that the educational building (the Academy) did not have a profound influence in architectural, educational or technological terms, nor does it reflect an exceptional interchange of ideas. Rather the Academy was part of a wider movement. The Observatory was clearly of great importance as a centre of astronomical knowledge and could justify consideration of this criterion if it were a single nomination.

ICOMOS does not consider that the nominated ensemble of monuments as a whole can be seen to satisfy this criterion.

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ICOMOS considers that this criterion has not been justified for the serial property as a whole.

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*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.*

In the original nomination this criterion was justified by the State Party on the grounds that the ritual and Confucian buildings provide excellent evidence of two now vanished cultural traditions, the ancient sacrificial culture and the traditional academy education. The ancient cult of offering sacrifices was transformed by the Emperors into a national religion with ceremonies that confirmed imperial power. The three Han gates are testaments to this culture. The Academy of Learning was one of the four most famous academies of the Song Dynasty and fostered renowned scholars and philosophers.

In the supplementary information, this criterion is justified by the State Party on the grounds that the scientific investigation of the form of the universe began three millennia ago and only gradually faded from the 15th-16th centuries. Many dynasties advocated the cosmology of "The Centre of Heaven and Earth," which was promoted by the elite classes, and accepted by the general population. The property is evidence of a scientific, educational and belief system that no longer exists today; and also the Buddhist cultural tradition that is living and evolving.

ICOMOS considers that the astronomical idea of the centre of heaven and earth is strongly linked with the idea of imperial power, with the propitiousness of establishing capitals at the centre of heaven and earth, and with its natural attribute, Mount Songshan, and its religious associations. What are nominated are sites that need to demonstrate the idea of the centre of heaven and earth, the circular area that the supplementary information says is associated with the centre of heaven and earth. This is however large and includes Dengfeng town as well as other temples. The relationship is clear for some sites in terms of their relationship with the mountain, or for the Observatory with its very direct links to astronomical ideas, but is less clear for others sites, apart from their being physically sited within the circular area.

ICOMOS considers that there is a need to explain to visitors the relationship between the sites and the overall area perceived to be the centre of heaven and earth.

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ICOMOS considers that this criterion has been justified.

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*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 was justified by the State Party in the original nomination on the grounds that the historic monuments of Mount Songshan are all outstanding examples of brick and stone, or masterpieces of wooden structures, in terms of architectural design and construction technology.

In the third volume of supplementary information, this criterion is justified by the State Party on the grounds that the nominated property as a whole is a comprehensive and outstanding masterpiece and testimony to a unique spirit of space with lasting impact of great scale and depth. The buildings of this ensemble were carefully located according to their individual cultural and religious features so as to echo one another and form a perfect combination. Under the influence of supreme imperial power and guided by academic and religious philosophy, they were exquisite in structure and layout, and were the most outstanding building complex at that time. The high standards in architecture and design helped to further extend the imperial power and its influence and to consolidate the rule.

ICOMOS considers that although the Han Que gates, the Songyue Temple pagoda with its advanced tubular structure, the pagodas of the Shaolin Temple, the Observatory and the wooden buildings of the Chuzu Temple Hall, Huishan Hall and Zhongyue Temple are all outstanding structures, it is more difficult to link them to one or more significant stages in human history in terms of what their form manifests.

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ICOMOS considers that this criterion has not been justified for the serial property as a whole.

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*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 was justified by the State Party in the first nomination on the grounds that the concentration of monuments reflects the fact that Mount Songshan was one of the birthplaces of Chinese civilisation, based upon the sacred concept of the 'Centre of Heaven and Earth' in Chinese history. Additionally the Shaolin Temple, the Pagoda Forest, mural paintings and stele inscriptions were directly responsible for diffusing the Chan sect and martial art culture in China.

The third volume of supplementary information suggests that the essence of the nominated sites lies in their association with the "centre of Heaven and Earth", which is located in Dengfeng.

In this supplementary information, this criterion is justified by the State Party on the grounds that the historic ensemble has direct and tangible relationships with associated historical events, current traditions, ideology, and beliefs. The associated beliefs include the exploration of and belief in the laws of astronomy and the universe; promotion of and belief in the status of God-granted imperial power; the affirmation of and belief in sacrificial rituals, and the existing traditional Taoist and Buddhist beliefs that replaced them in later generations; and the belief in the Zen Sect of Buddhism which originated from and developed in Shaolin Temple.

ICOMOS considers that the concentration of sacred and secular structures does reflect the strong and persistent tradition of the centre of heaven and earth linked to the sacred mountain which sustained imperial sacrifices and patronage. The Buddhist structures came to have a symbiotic relationship with the sacred mountain.

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ICOMOS considers that this criterion is has been justified.

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At this stage, ICOMOS considers that the justification for a serial nomination in terms of all sites being linked to a coherent shared value has been demonstrated in general terms but that further comparisons are needed to justify the choice of sites.

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In conclusion, ICOMOS considers that criteria (iii) and (vi) and the Outstanding Universal Value have been demonstrated.

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#### 4. FACTORS AFFECTING THE PROPERTY

##### *Development pressures*

The present road in front of the Zhongyue Temple now functions as the main road connecting Dengfeng County with the highway, which potentially leads to traffic problems and threats to the monuments. The proposed solution is to build another road further south to take most of the traffic. The proposal was approved by the central government authority in 2008 and is already partly completed.

In recent times uncontrolled building activity has had a negative impact on the surroundings of some of the sites. In some cases buildings have been removed and others renovated to mitigate the impact.

##### *Tourism pressures*

Currently visitation is not excessive with most monuments receiving an average of 100 visitors per day. Shaolin temple complex has much higher visitation due to the international interest in the Chan Sect. However, this appears to be well managed with the entrance to the Shaolin complex constructed for the spectacular display performances conducted at 9 am every day for visitors.

The estimated visitor capacity for the whole property is approximately 10,000 people per day. If the visiting tourist numbers exceeds the carrying capacity of the monuments, a redirecting plan will be implemented.

Damage by tourist foot impact is generally not apparent. The paved nature of the sites provides protection. The Pagoda Forest retains its natural ground surface but has compacted gravel to protect against visitor foot impact erosion in its central area.

One area where the effects of large numbers of visitors could become problematic is through the impact of body heat on the murals. It would be desirable to plan to safeguard the murals by controlling visitor numbers.

Facilities for visitors are in place including parking areas a short distance from the monuments. Electric people-movers convey visitors through the Shaolin Complex along routes where visitors can view groups of monks training in martial arts, or undertaking meditation.

##### *Environmental pressures*

The landscape surroundings of some of the monuments are farmed and are thus under the control of individual owners. There is no immediate concern for the impact of intensive methods of land management.

Around the Observatory, several kilometres outside the buffer zone, are coal mines. In order to prevent subsidence, it has been agreed that the mines should leave huge "columns" of coal especially on the side

facing the location of the monuments, and should add reinforcement if necessary to prevent collapse.

##### *Natural disasters*

In terms of natural disasters, geologically the site is unlikely to experience earthquakes. Wild landscape fires are not considered an issue due to current adequate rainfall. Flooding and silt damage to the Pagoda Forest has been experienced and the potential danger brought by floodwater has been effectively controlled through dredging, building dams and increasing the spillways to the north of Pagoda Forest. Early warning systems for extreme weather conditions are in place but management for disasters is a future issue to be addressed.

##### *Impact of climate change*

The property is sited within a warm-wet monsoon climate zone with four seasons of which winter is very cold and summer warm and wet. If the climate were to become more extreme in terms of higher snowfall or more rain in summer, it would have a detrimental effect on the buildings, particularly the roofs, and could also increase the risk of flooding to the Pagoda Forest.

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ICOMOS considers that the main threats to the property are potential over-visiting and unregulated incremental development.

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#### 5. PROTECTION, CONSERVATION AND MANAGEMENT

##### ***Boundaries of the nominated property and buffer zone***

The plans provided with the nomination are of a small scale and do not show the layout of the complexes.

Plans from the *Master Plan* made available to the mission expert enabled greater understanding of the layout of the major features, other minor heritage features located in the nominated areas and planning for visitor management. Areas of archaeological sensitivity have been plotted on plans in the Master Plan document.

The boundaries of the nominated property are adequate for their protection. The buffer zones overlap with National Park designation – see below – but not all of the National Park is included in the buffer zones. As the National Park covers the surrounding mountain peaks and provides a link between all the nominated sites apart from the Observatory, ICOMOS considers that it would be appropriate if the National Park were to be considered as the buffer zone for the nominated sites. This is a suggestion made by the State Party in the third volume of supplementary information



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ICOMOS considers that the boundaries of the nominated property are adequate and that the boundaries of the buffer zones should be extended to include the whole of the National Park, as suggested by the State Party.

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### **Ownership**

The land and buildings in the property are owned by the government.

### **Protection**

#### *Legal Protection*

The nominated monuments are either protected as national monuments by the National Government or as provincial monuments as Henan Province protected sites. Only the Kernel compound is protected at provincial level.

The property if inscribed would be subject to the Measures on the Protection and Management of World Cultural Heritage adopted on 2006. This sets out overall responsibility at national level for World Heritage but puts responsibilities on provinces to establish protection plans and management systems.

The nominated area lies within the Mount Songshan National Park. This covers the peaks of Mount Shaoshi and Mount Taishi. The National Park has a Master Plan (2009-2025) to regulate its activities which are to protect both scenic and natural resources. Within the National Park, in addition to the provisions for individually protected monuments, there are construction control areas.

However it is not clear that the 'natural environment' in some of the buffer zones is sufficiently protected. For example, it is said that this 'should be classified as mountain forest zone in the urban master plan in order to avoid development'.

#### *Traditional Protection*

To complement the overall responsibility of the Dengfeng Municipal government, various local communities have set up 'village conventions' to ensure property protection from a daily management perspective. Local volunteer guides are trained so that they can participate in the management and supervision of the monuments.

#### *Effectiveness of protection measures*

The protection in place for the individual sites is adequate, but needs strengthening for the landscape setting that provides the overall context for the monuments.

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ICOMOS considers that the legal protection in place is adequate for the nominated property but further protection is needed for the landscape areas of the buffer zone.

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### **Conservation**

#### *Inventories, recording, research*

The key aspects of the eight monuments have all been inventoried. The inventories include former temples and pagodas (now ruins) that could provide further heritage information.

The archival system is of the highest order with hard files on every object, including monitoring records in a modern compact repository. The items are cross-referenced according to sites and types. An electronic database also retains records. The archival repository is within a building at the Songyang Academy.

#### *Present state of conservation*

The Que Gates each have a protective shelter building. Taishi Que Gate has a solid simple historic building in sound condition that currently achieves the protective purpose. Chimu Que Gate has a simple modern building reflecting a traditional style, while the Shaoshi Que Gate has an older building with evidence of disrepair. The stone sculptures of this gate are in urgent need of conservation.

A new modern stylised shelter building is planned for Shaoshi Que Gate. The form and fabric of the structure with large expanses of glass will be highly reflective and could be intrusive.

The conservation of the pagodas in the Pagoda Forest is variable with many needing conservation. Conservation management measures are in place to deal with tree root damage to some of the pagodas. Trees (small cypresses) with roots impacting on the pagodas have been identified and are scheduled for removal as noted in the *Master Plan*.

Subsidence of stone structures is a concern and buildings likely to be affected are monitored carefully.

Water damage is present in the eastern walls of the Observatory. Measures are in place to create a small fall to the flat roof to reduce water penetration within the walls. The Observatory is near to some power plants and it is believed that nitrate, a by-product of the power plants, has been causing some fabric damage. Closing agreements are in place for the power plants, which were said in the original nomination to be effective in 2008. Nitrate effects to the observatory wall are being monitored and are expected to reduce with the closure of the power plants.

An aluminium factory mentioned in the nomination dossier is some distance from the sites and apparently has negligible impact. The coal mining noted in the dossier is some distance from the Observatory's buffer zone and is reported to have ceased operation.

The conservation issues of the significant painted murals at Shaolin Temple have been analysed and conservation treatment was undertaken in the 1980s and 1990s by Dunhuang Academy. Monitoring is conducted by the Administrative Bureau of Cultural Relics with the assistance of colleges and universities.

Few details are given for the conservation of the collection of historic trees within several of the sites.

The Observatory has landscaped surrounds to the buildings that are within a town setting that does not diminish the value of the monument. The other monuments all have either natural forest or farmlands in their settings. The forested areas are mainly regrowth or new growth.

#### *Active Conservation measures*

Research into environment control for historic interiors is said to be planned. As for the Shaolin murals, the crucial problems include flaking/scaling of paint layers by contraction of binding materials, dehydration and separation of renders, lacunae of renders, cracks in walls, and soot and smoke deposits by lighting butter lamps and burning incense.

After conservation treatment to the murals in 1980s and 1990s by Dunhuang Academy (a renowned institution in the field internationally), the condition of the murals is good and under monitoring. The local Administrative Bureau of Cultural Relics also invites colleges and universities to participate in the monitoring.

The conservation work is under the overarching guidance of the Administrative Committee of Cultural Heritage Protection of Dengfeng Municipal People's Government. Conservation plans and works are undertaken by experts.

Specific conservation plans are referred to in the booklet *Introduction to the Conservation and Administration of the Historic Monuments of Mount Songshan* provided during the evaluation mission.

The sites needing conservation works, such as some of the pagodas in the Pagoda Forest and the carvings on the Han gates, have conservation programs in place.

No details are provided for the conservation of the landscape setting of the sites.

#### *Maintenance*

Systems for regular maintenance of the monuments are in place.

#### *Effectiveness of conservation measures*

Overall a satisfactory system is in place for dealing with conservation, but work needs to move forward on the implementation of the conservation plans for stone reliefs of the Shaoshi Que Gates and the pagodas of the Pagoda Forest.

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ICOMOS considers that conservation measures and plans for the buildings are adequate. Further details are needed on the conservation of the natural areas in the buffer zone.

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#### **Management**

##### *Management structures and processes, including traditional management processes*

It is the responsibility of the Zhengzhou Municipal People's Government to lead the conservation and management of the historic monuments of Mount Songshan while the Dengfeng Municipal People's Government is fully responsible for implementing the conservation and management work. In 2007 the Zhengzhou Municipal People's Government established the Zhengzhou Municipal Preservation and Management Office of the Historic Monuments of Mount Songshan. The Dengfeng Municipal Administration of Cultural Heritage was established in 1990 to protect and manage the opening up of the historic monuments. Beneath the administration are preservation offices for each of the monuments.

Thirty-six qualified specialist staff, the cultural property preservation officers, are responsible for the daily conservation and management. An extensive program of training exists for all levels of personnel involved in management of the monuments.

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

The *Master Plan (Regulations for the Conservation and Management of Historic monuments of Mount Songshan in Zhengzhou City)*, approved in 2007, documents policies for protection and management of the nominated sites as well as directions for visitor capacity, circulation, facilities and the ongoing needs of the religious communities.

The proposal described in the nomination dossier to construct three cultural exhibition areas appears excessive and runs the risk of fragmenting the area physically, visually and conceptually, as well as intruding into the relationship of the monuments with their landscape settings. It would be preferable if one exhibition centre could be considered perhaps alongside the boulevard in the town area.

### *Risk preparedness*

A link to the meteorological system provides early warnings on extremes of weather. Lightning conductors are discretely located throughout the sites.

A very sensitive smoke detector system is installed in the temple buildings. A warning alarm is activated if visitors venture too close to the ancient trees.

Measures to protect against extremes of weather arising from climate change need to be considered so that plans of protective action and disaster management arising from weather extremes such as wild fires and hail storms are in place.

### *Involvement of the local communities*

Local communities appear to be fully involved in the nomination, and in the ongoing future of the monuments. Volunteer guides (retired public servants) play an important and active role in monitoring and guiding at the monuments.

Local communities can use parts of the monuments for events under a booking arrangement. Religious leaders are all deeply knowledgeable about the heritage features of their temples and are responsible for the ongoing religious functions that are part of the heritage significance of the places.

### *Resources, including staffing levels, expertise and training*

Funding for conservation work is primarily from the State Administration of Cultural Heritage (SACH) which receives a percentage of revenue from tourism. SACH considers proposals for conservation works and funds them according to a priority allocation. Funding also comes from religious donations by people on religious visits and donations from individuals.

### *Effectiveness of current management*

The Master Plan applies overall to all the components of the serial nomination and provides an effective overarching framework for the management.

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ICOMOS considers that the management system for the property is adequate.

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## **6. MONITORING**

Monitoring of all timber structures and sensitive features is undertaken annually. A range of indicators have been developed. These include state of vegetation but not the overall visual integrity of the current buffer zones.

The Zhenzhou Municipal Administration of Cultural Heritage with the Dengfeng Municipal Peoples'

Government undertakes the monitoring reports and submits them to the SACH.

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ICOMOS considers that the monitoring arrangements are adequate for the nominated property but that monitoring needs to be developed for the landscape elements of the buffer zone.

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## **7. CONCLUSIONS**

The original nomination and the first supplementary volume of information received stressed the link between some of the nominated sites and the unique development of mountain worship and suggested that the value of the ensemble manifests the power and influence the mountain had in constitutional, religious and ceremonial, terms and how the simple worship of nature was transformed into a force that legitimised imperial power, under the guidance of Confucian thought.

The exclusion of Mount Songshan from the boundary, even though it was the inspiration for the development of the property, appeared to relate to the premise that although the eight monument ensembles relate to Mount Songshan as the birthplace of Chinese cultural civilisation, they are distinctive entities reflecting different cultural periods and dates.

However, in the second volume of supplementary information received, the link between the nominated sites and Dengfeng was brought to the fore and less attention was drawn to the association with mountain worship. It was suggested that the idea of the area of Dengfeng (the capital of the first dynasty whose precise location is unknown) being the centre of heaven and earth was the motivation for the construction of the various sites.

The third volume of supplementary information reinforced the link between the ensemble and the concept of the centre of heaven and earth, and has provided a new justification for the criteria. Although it is clear that Dengfeng was for centuries seen as the centre of heaven and earth, this astronomical concept was strongly linked to the concept of the centre of the earth being the seat of imperial power. Although Dengfeng was the capital of the first dynasty, its general location remained linked to the idea of it being the centre of the country. Dengfeng was also linked to Mount Songshan, as the natural attributes of the concept of heaven and earth.

ICOMOS considers that it is impossible to separate this concept from its associations with imperial power, with religion and with Mount Songshan, described as the natural attribute of the concept. As the supplementary information acknowledges, the central point of the zone perceived as the centre of heaven and earth is between two of the mountain peaks: it is surrounded on three sides by the mountain.

ICOMOS considers that the astronomical idea of the centre of heaven and earth is strongly linked with the idea of imperial power, with the propitiousness of establishing capitals at the centre of heaven and earth, and with its natural attribute, Mount Songshan. ICOMOS does not consider that it is possible to separate the idea of heaven and earth from its physical marker and the ceremonies and rituals associated with it: the concepts reinforced each other. The mountain links the sites and gives them context.

The State Party suggests that the sites could be linked by extending the individual buffer zones (already part of the National Park) to coincide with the National Park and ICOMOS agrees with this suggestion.

As the idea of the centre of heaven and earth is difficult to relate to all the components of the nomination, ICOMOS considers that the concept needs to be explained at the property in a way that enables visitors to understand what links the various sites.

#### ***Recommendations with respect to inscription***

ICOMOS recommends that the Historic Monuments of Dengfeng in "The Centre of Heaven and Earth", People's Republic of China, be inscribed on the World Heritage List on the basis of ***criteria (iii) and (vi)***.

#### ***Recommended Statement of Outstanding Universal Value***

##### **Brief synthesis**

For many centuries Dengfeng, one of the early capitals of China whose precise location is unknown, but whose name is now associated with an area to the south of Mount Shaoshi and Mount Taishi, two peaks of Mount Songshan, came to be associated with the concept of the centre of heaven and earth – the only point where astronomical observations were considered to be accurate. The natural attribute of the centre of heaven and earth was seen to be Mount Songshan and worship of Mount Songshan was used by the Emperors as a way or reinforcing their power.

The three ideas do therefore to an extent converge: the centre of heaven and earth in astronomical terms is used as a propitious place for a capital of terrestrial power, and Mount Songshan as the natural symbol of the centre of heaven and earth is used as the focus for sacred rituals that reinforce that earthly power. The buildings that clustered around Dengfeng were of the highest architectural standards when built and many were commissioned by Emperors. They thus reinforced the influence of the Dengfeng area.

Some of the sites in the nominated area relate closely to the mountain (Zhongyue Temple, Taishi Que and Shaoshi Que); the Observatory is very clearly associated with the astronomical observations made at the centre of

heaven and earth, while the remainder of the buildings were built in the area perceived to be the centre of heaven and earth – for the status that this conferred.

***Criterion (iii):*** The astronomical idea of the centre of heaven and earth is strongly linked with the idea of imperial power, with the propitiousness of establishing capitals at the centre of heaven and earth, and with its natural attribute, Mount Songshan and the ceremonies and ritual associated with it. The serial property reflects the significance of the area in terms of prestige and patronage.

***Criterion (vi):*** The concentration of sacred and secular structures in the Dengfeng area reflects the strong and persistent tradition of the centre of heaven and earth linked to the sacred mountain which sustained imperial sacrifices and patronage over 1500 years and became of outstanding significance in Chinese culture. The Buddhist structures came to have a symbiotic relationship with the sacred mountain.

#### **Integrity and authenticity**

The attributes necessary to represent outstanding universal value are present within the boundaries although as the area associated with the concept of heaven and earth is considerably larger than the nominated property and a full justification for the choice of sites within that larger area has not been provided. Within each individual site, sufficient attributes remain to reflect their original layout, even though in most sites many of the individual buildings have been subject to several periods of re-building.

Individually, there is no concern over the authenticity of the attributes in terms of their materials, religious associations, and spatial layout. Overall although some of the sites are related to the physical attributes of the concept of heaven and earth – the mountain and its associated religious practices – the series as a whole does not readily convey the concept in an obvious way and the links need to be strengthened.

#### **Protection and Management requirements**

The majority of the monuments are protected as national monuments by the National Government. Only the Kernel compound (Shaolin Temple) is protected at provincial level.

The *Master Plan (Regulations for the Conservation and Management of Historic monuments of Mount Songshan in Zhengzhou City)*, approved in 2007, documents policies for protection and management of the nominated sites as well as directions for visitor capacity, circulation, facilities and the ongoing needs of the religious communities.

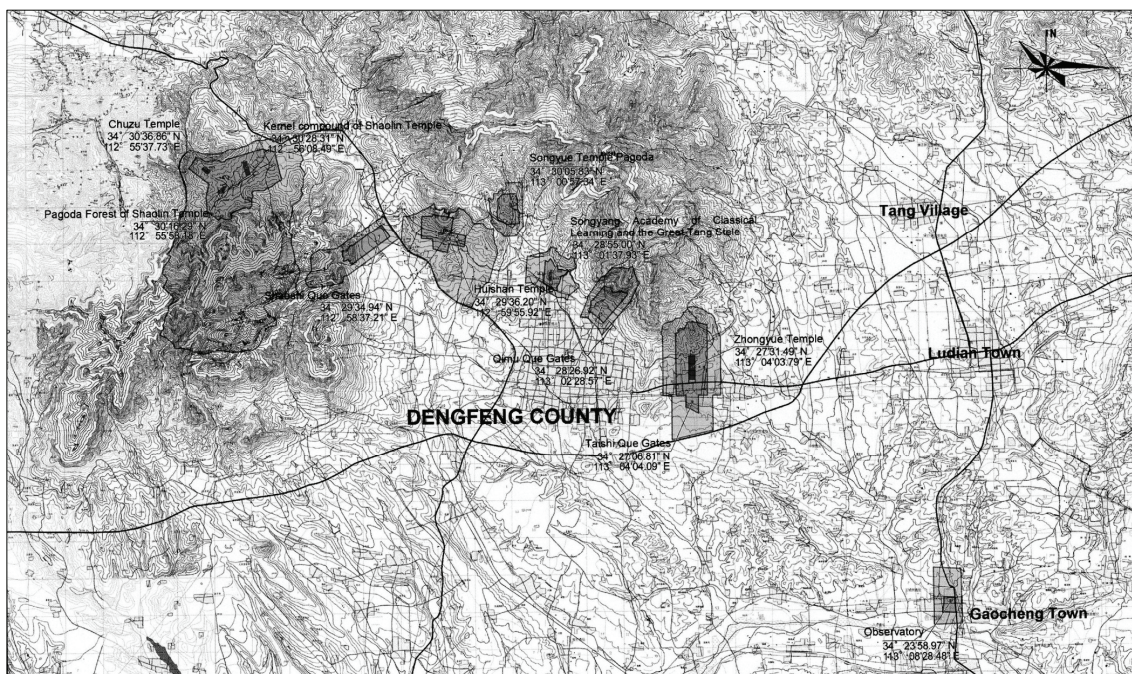
It is the responsibility of the Zhengzhou Municipal People's Government to lead the conservation and management of the property while the Dengfeng

Municipal People's Government is fully responsible for implementing conservation and management work. In 2007 the Zhengzhou Municipal People's Government established the Zhengzhou Municipal Preservation and Management Office for the Historic Monuments of Mount Songshan. The Dengfeng Municipal Administration of Cultural Heritage was established in 1990 to protect and manage the opening up of the historic monuments. Beneath the administration are preservation offices for each of the monuments.

The nominated area lies within the Mount Songshan National Park and it is recommended that this becomes the buffer zone, absorbing the individual buffer zones proposed for the individual sites. The National Park has a Master Plan (2009-2025) to regulate its activities which are to protect both scenic and natural resources. Within the National Park, in addition to the provisions for individually protected monuments, there are construction control areas. The 'natural environment' within the Park provides the context and setting for the monuments and there is a need to ensure that this is adequately classified and protected in order to avoid adverse development.

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

- Extend the buffer zones to coincide with the boundary of the Mount Songshan National Park, as suggested by the State Party;
- Provide adequate interpretation at the property to ensure that the link between the component sites and the concept of the centre of heaven and earth is adequately understood.



Map showing the boundaries of the nominated properties





Zhongyue Temple



Qimu Que Gates





Pagoda Forest - Shaolin Temple



The Observatory