

## Research Paper

# The Influence of Architectural Culture on The Development of Religious Heritage

## -The Case of Asian Pagodas

Jin Shang, University of Sheffield, United Kingdom

### Abstract

*Asian pagoda is a type of religious heritage architecture that developed because of the introduction of Buddhism from ancient India. The original architectural features of the pagoda are not the same as those of the current Asian pagodas. In order to spread Buddhism, Buddhist architecture, especially pagodas, acquired the architectural and cultural identity of the local population by integrating with the local architectural culture. It led directly to the evolution of pagodas in Asia with different architectural appearance in these countries. This study takes pagodas in two typical countries in Asia as cases to analyse the influence factors of architectural culture, which may affect the development of the appearance of ancient pagodas by case study. This research will provide the influences affecting the development of religious architecture from the perspectives of architectural culture. In addition, this study presents a distribution pattern of pagoda differences based on Buddhism's transmission routes and analyses the reasons for this pattern based on the results of the case study. It will be applied for the sustainable protection of religious heritage architecture.*

### Keywords

*Asian pagoda, Architectural appearance, Architectural culture, Distribution pattern*

## 1. Introduction

### 1.1. Asian pagoda

Pagoda originated from the stupa in India (Zhang, 2000; Xu, 1986). Stupa (Figure. 1) means tomb in Indian Buddhism (Shen, 2005). It is a kind of religious architecture. Asian pagoda is generated from the spread of Buddhism in Asia. At the start of Buddhism, Sakyamuni assigned many missions to spread Buddhism in different directions. Buddhism was divergent in the process of its spread and development. This divergence is primarily reflected in the Mahayana and the Theravada. The Mahayana is mainly distributed in Bhutan, Nepal, Sikkim, China, Turkistan, Central Asia, Korea, Mongolia, and Japan; The Theravada is mostly found in Burma, Ceylon, Cambodia, and Siam (Rost, 1930). This divergence has also led to changes in religious architecture, like pagodas, in different countries.



Figure 1. The model of an Indian stupa. Source: Photo by author at Xuchang Tower Culture Museum

## 1.2. Architectural culture

Naghizadeh (2000) defined culture as consisting of the knowledge, beliefs, education, values, and customs, which is generated from the development of society. Culture has a great influence on the architecture (Madadpoor, 2000). Architecture is the activity of creating and organizing space (Ettehad *et al.*, 2014). Architecture is not just building; it also includes the methods of building. The aim of architecture is to meet the demand of non-material of local people (Ettehad *et al.*, 2014; Parhizgar, 2003). The cultural factors that can affect the creation of architectural space mainly include culture, beauty, and so on (Ettehad *et al.*, 2014). Religious culture is part of the culture. The beauty of architecture also has many different definitions (Lavdas and Salingaros, 2022). So humans from different countries may also have different perceptions of architectural beauty. This paper focuses on the influence of architectural culture on the development of pagoda morphology in Asia from two perspectives: religious culture and the perception of architectural beauty. In addition, this study examines the influence of transmission paths on the difference in the morphology of pagodas by comparing the pagoda morphology in two different countries.

## 2. Methodology

At first, this research compared the morphological characteristics of pagodas from different countries in Asia to select the typical cases. Secondly, this research investigated the difference between the case pagoda and the original stupa through the case study. At last, this study explored the factors that affect morphological changes in the development of pagodas and how these factors affect morphological changes in pagodas through historical and literature research. It is found that there are a great number of types of pagodas in China, and some types of pagodas have similar morphological features to some Asian pagodas, but the difference between Chinese pagoda and Indian stupa is large; while the morphology of Thailand's pagodas have many similar features with Indian stupa but is more different from pagodas in China. Therefore, this study mainly chooses pagodas in China and pagodas in Thailand as study cases.

### 3. Results

#### 3.1. Perception of architectural beauty

In approximately the 1st Century B.C., Buddhism was introduced to Xinjiang. The western region of China became the center of Buddhism at that period. Until the Eastern Han Dynasty, Buddhism was introduced to the central region of China, and eventually evolved into 'Han Buddhism'. (He, 2023). The appearance and structure of the pagoda changed significantly during this period. The changes in the appearance of the pagoda had three main periods. The first period was from the end of the Eastern Han Dynasty to the Tang Dynasty. In the beginning, it was difficult for the Buddhist culture to be accepted by the locals in a short time. The structure of the stupa can not meet the aesthetic preferences of the local people. In order to spread Buddhism, the structure of the Indian stupa began to combine with the structure of the Chinese traditional architecture to generate a new structure. Multi-story pavilion is very popular in ancient China. So this structure was introduced into the evolution of pagoda structure (Zhang, 2009). The multi-story pavilion-style pagoda is one of the typical Chinese pagodas. Figure 2 is one multi-story pavilion-style pagoda, which was built in the Ming Dynasty. It can be seen that the appearance of this architecture has no similarity to the Indian stupa. The structure and façade are different with changed dramatically. The second period of the development of Chinese pagodas was from the Tang Dynasty through the Song Dynasty to the Liao and Jin Dynasties. This period was the highest point in the development of pagodas in China. The number of pagodas increased sharply during this period. Because of the progress of technology, the construction materials of ancient pagodas became more abundant. The construction materials include timber, brick, stone, copper, iron, glaze and so on. Timber pagodas were gradually replaced by masonry pagodas during this period. As the construction materials and technology were changed, the structure and appearance of the pagoda became more varied. In addition to four-sided pagodas, six-sided and eight-sided pagodas began to appear. The internal structure of the pagoda has also become complicated at this period (Zhang, 2009). Most early Chinese pagodas have a four-sided structure, which is largely influenced by ancient Chinese pavilion-style architecture. But six-sided and eight-sided pagodas became the mainstream of ancient pagodas during the Northern Song Dynasty. One of the most important reasons is the change in the aesthetic orientation of the local people at that period (Zhang, 2009). The difference between the pagodas in the Tang Dynasty and Song Dynasty is evidence of the influence of the perception of architectural beauty on the changes in the appearance of pagodas. The appearance of pagodas in the Tang Dynasty is more focused on the overall structure, but the façades have less decoration. The design of the pagodas in the Song Dynasty was more concentrated on the decoration. This change is consistent with the transformation of human aesthetics between these two dynasties (Zhang, 2009). The Yuan Dynasty to the Qing Dynasty is the third period of the development of ancient pagodas in China (Liang, 2004). The construction technology of the pagodas did not develop further during this period, but the types of pagodas began to become more diverse, such as Lama Pagoda, Vajra Throne Pagoda, and Wenfeng Pagoda (Zhang, 2009).



Figure 2. Xuchang Wenfeng Pagoda. Source: Photo by author.

Thailand is also a famous country that has a large number of Buddhists. Buddhism has had a deep impact on the lives of the local people over the centuries of its development in Thailand. The question of when Buddhism was introduced to Thailand has many different answers. Some researchers claim that the reign of Asoka was the period when Buddhism was first brought to Thailand. Other scholars believe that Buddhism was introduced into India later than this period (Kusalasaya, 2024). Based on a review of current archaeological and historical evidence, Kusalasaya (2024) concluded that Buddhism was introduced to Thailand in four different religious forms at four different periods. These four different forms include Theravada, Mahayana, Burma Buddhism, and Ceylon Buddhism (Kusalasaya, 2024). Although the development of Buddhism in Thailand is complex, many of Thailand's pagodas have a similar structure. Figure 3 shows the profile structure of a pagoda in Thailand. It can be demonstrated that the pagoda in Thailand remained similar structures to the Indian stupa through comparison. It evolved unique architectural features based on this similarity. The top structure of the pagoda in Thailand is higher than that of the Indian stupa, and its overall structure is more spectacular.

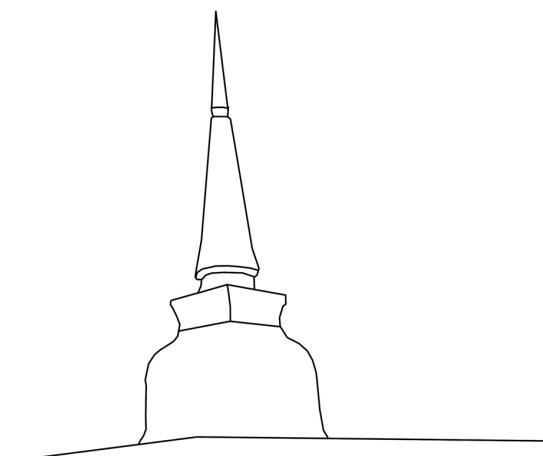


Figure 3. The profile structure of a pagoda in Thailand. Source: This figure was adapted from (Wasriwiwat, 2022) and redrawn by author.

It can be concluded that the perception of architectural beauty played a crucial role in the development of the appearance of Chinese Han Buddhism pagodas. Among these three historical periods, the changes in the appearance of Chinese pagodas mainly occurred in the first and second periods. The greatest changes in ancient Chinese pagodas happened during the first period. The structural features of the pagodas are entirely different from those of Indian stupas. The reason for this significant change is that people in different countries have different aesthetics. The changes in the Chinese pagodas in the second period are mainly reflected in the change from four-sided to six-sided and eight-sided as well as the change in façade decoration. The differences in this period are not as noticeable as those in the first period. It is the result of the evolution of local aesthetics. Compared with the Chinese pagoda, the pagoda in Thailand is more similar to the Indian stupa. The reason is that some structures of the pagoda in Thailand are generated based on the combination of Thai aesthetics and Indian architectural art (Kusalasaya, 2024).

### 3.2. Religious culture

There is another type of pagoda in China, and the morphological features of this type are widely variable compared to the pagoda of Han Buddhism. An important reason for this difference is related to the religious culture. Buddhism was introduced to Xizang in the 7th century AD. Before Buddhism was introduced to Xizang, the native religion of Xizang was the Bon religion. After Buddhism was introduced into Xizang, it absorbed the information of Bon culture and eventually evolved into Tibetan Buddhism (He, 2023). Tibetan Buddhism is also called Lamaism. It is another typical Buddhism in China. Although Buddhism was introduced to Xizang later than it was introduced to the Central Plains, Tibetan Buddhism is closer to Indian Buddhism than Han Buddhism since it is geographically located closer to India. There is evidence that the appearance of the Lama Pagoda in Tibetan Buddhism has a similar structure to the Indian pagoda (Liu, 2019). Figure 4 is a typical Lama Pagoda. It can be seen that this pagoda has the same circular cross-section as the Indian pagoda (Figure 1) through comparison.



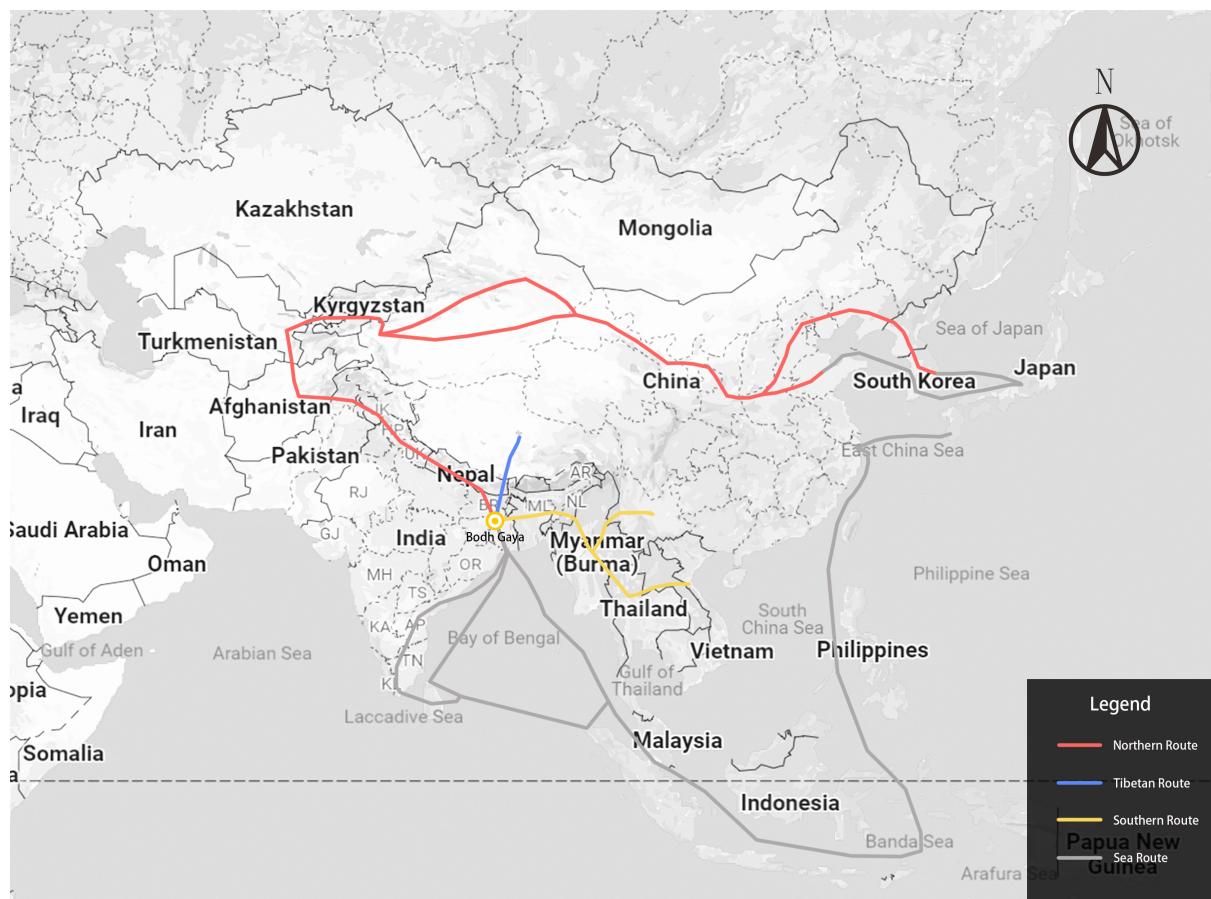
Figure 4. Pagoda of Duke of Bin. Source: Photo by author.

In summary, the difference between the pagoda of Tibetan Buddhism and the pagoda of Han Buddhism is mainly because of the difference in religious culture. Compared to Han Buddhism, Tibetan Buddhism is a

new form of Buddhism that combines the local religion of Xizang. Therefore, the religious content of Tibetan Buddhism is different from that of Han Buddhism. From a geographical perspective, Tibetan Buddhism has been influenced by Indian Buddhism more directly because Xizang is located close to India (Liu, 2019). As a result, Tibetan Buddhism has many similarities with Indian Buddhism. It means the appearance of the pagoda of Tibetan Buddhism is more similar to that of the pagoda of Han Buddhism to the Indian stupa.

### 3.3. Transmission route

Figure 5 is the map of the spread of Buddhism in Asia. There are four main routes of transmission of Buddhism in Asia. These routes include the northern route, the southern route, the Tibetan route, and the sea route. It can be found that different degrees of difference of pagodas from different transmission routes. The transmission route (the southern route) of Buddhism in Thailand and the transmission route (the Tibetan route) of Tibetan Buddhism are shorter than the transmission route (the northern route) of Han Buddhism. The degree of difference between the Thai pagoda and the pagoda of Tibetan Buddhism is lower than the pagoda of Han Buddhism. The findings about the distribution pattern of the pagodas' difference can be concluded that the degree of difference in the appearance of pagodas is positively correlated with the distance of the transmission route.



**Figure 5. The map of the transmission routes of Buddhism in Asia. Source:** This figure is drawn by author and data is from (Xuchang Tower Culture Museum, 2024).

Through the case study, it can be found that the development of the appearance and structure of the pagoda is related to the evolution of its religion. When a religion is transmitted from one country to another, its religious content may change. The reason is that when a religion is introduced to a country or place, this

religion always has a low level of cultural identity with local people. It can generate obstacles to the spread of the religion. The case study above revealed two main methods for Buddhism to increase the cultural identity of the local people. The first method is to combine religious architecture with local traditional architecture. This will increase the local people's acceptance of the religious architecture in terms of the architectural aesthetics. Religion raises the cultural identity through the fulfillment of the aesthetic needs of the local people for religious architecture. Another method is to combine with local religion. It is obvious that the local people have a deeper understanding and a higher level of cultural identity of the local religion. So religion can enhance the understanding and cultural identity of the local population through the combination with local religion. The religious content also changed in this process. The transmission distance refers to the number of countries and regions that a religion passes through during its spread. When the transmission distance of a religion is shorter, it indicates that it has experienced fewer countries and regions. Religious architecture will suffer less from this kind of change.

There is another finding that the appearance of a pagoda may be affected by the pagoda in around country or region. The appearance of the pagoda of Tibetan Buddhism is the evidence of this conclusion. Another piece of evidence is the Japanese pagoda. Japanese pagoda has a similar structure to the pagoda of Chinese Han Buddhism. The reason is that Japan is located close to China. Buddhism in Japan was also deeply influenced by Chinese Buddhism (He, 2023).

#### 4. Conclusion and discussion

Currently, the sustainable development of heritage architecture is an important topic in society. Heritage architecture carries the memory and culture of nations. This research selected the Asian pagoda as a case and mainly explored the factors that may affect the development of the appearance of religious architecture from the perspective of architectural culture. The study finds that religious culture and the perception of architectural beauty are two important factors of architectural culture that have influenced the development of the appearance of religious architecture. This research also concluded the patterns of change in the degree of differentiation in the appearance of religious architecture from the map of transmission routes of Buddhism. It found that differences in the same religious architecture are not only related to architectural culture but also to geographical factors.

The main limitation of this research is that the number of cases is limited. This study just selected Chinese pagoda and Thai pagoda as the study case. It considers less the comparison of the select cases with other countries in Asia. It may ignore some important influence factors and some special situations. Another limitation is that the selection of study literature is insufficient. Most of the selected study literature explains the reasons for the changes in the appearance of the architecture from the perspective of historical development. It lacks the literature on the architectural background. The third limitation is that it lacks a study of the origin and development of Indian stupa. The Indian stupa as the origin of the Chinese pagoda and the Thai pagoda as well as the object of comparison should be studied for its development process.

In the future, this research will explore the influence factors of the development of morphological features in religious architecture from other perspectives, such as the development of construction technology. The findings of this research will mainly contribute to the study of the development of religious architecture.

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