

# ***The Evolution of Worship Space in the Yungang Grottoes under the Influence of the Silk Road***

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**Abstract:** With the spread of Buddhism, cave temples, originated from India, were introduced to Central Asia via the Silk Road, and then to mainland China. This foreign religious architecture took root in China and completed the process of gradual Sinicisation. The worship space defines the core of the cave temples' architectural space. This article takes the Yungang Grottoes as an example to explore the evolution of Buddhist worship spaces. Indian Buddhist architecture has produced two most basic forms of worship space—right-hand space and prostration space—whereas in Central Asia, Buddhist architecture has undergone great changes in style, but the basic prototype of the worship space is still composed of Indian Buddhist principles: it still follows the two worship spaces of right rotation and prostration. In the Yungang Grottoes, the two worship space have been influenced by both native India and Western Central Asia, combining with the characteristics of the Han Dynasty to develop and evolve.

**Keywords:** Silk Road, Yungang Grottoes, worship space

## **1. Introduction**

With the spread of Buddhism, cave temples were introduced from India via the Silk Road to Central Asia and the western regions, and then to mainland China. This foreign form of religious architecture took root in China, completing the process of gradual Sinicisation. The Yungang Grottoes, located at Wuzhou Mountain in the province of Shanxi, are Buddhist cave temples that were built during the Northern Wei Dynasty, containing extraordinary rock-cut architecture. The grottoes are known for their mixed architectural style. Compared to the earlier cave temples in China, the Yungang Cave Temples show more diversities in structure, function, and artistic expressions, showing a fusion and collision of different cultures. Among them, The worship space is the soul of the architectural style of cave temples. Therefore, this essay focuses on how the architectural styles were fused together and became Chinese, in a case study of the Buddhist worship space in Yungang Cave Temples.

## 2. The Origin of Worship Spaces: Chatiya Caves in Ancient India

### 2.1. The rise of Chatiya

Caves, as the name suggests, are chambers cut into the rocks and cliffs of mountains, originating in Ancient Egypt and being diffused to India around the 5 or 4 century BCE. During the Ashoka period (268-232 BC), two rock-carved caves were excavated in the Barabar Mountains near Gaya in the north-eastern state of Bihar for the use of Ajivika ascetics, and are the oldest surviving rock-carved caves in India. After the rise of Buddhism, Buddhists borrowed the original Indian cave form of worship practice, and Buddhist caves gradually became the main body of ancient Indian caves.

In the early days there were no statues of the Buddha. In the latter part of Ashoka's reign, he converted to Buddhism and built a large number of Stupas to hide the Buddha's relics, which became the symbol of Siddhartha Gautama and the object of worship for his followers. The Ten Realms of Causes and Consequences 《十界因果浅录》 says, "There are three kinds of worship: one for the Buddha, two for the sutras, and three for the relics". The basic form of Stupa is a hemispherical mantle built on top of a round or square pedestal, which is the body of the pagoda, made of masonry on the outside and solid clay on the inside. Later, with the development of Buddhism, Stupa began to develop from a single layer to a multi-layered direction, and some also began not to hide the relics, known as Chaitya. And Buddhists began to build Stupa indoors to protect them from the rainy season when they performed their worship activities, known as Chaitya halls, which evolved into pagodas and temples for worship. The wooden structure of the Chaitya Hall was replaced by the Chaitya Cave because the stone was strong and resistant to decay.

### 2.2. Buddhist liturgy

The specific form of the worship space is largely determined by the mode of worship. Buddhist liturgy can be broadly divided into two categories: pradakshina and prostration[1].

Ancient Indians regarded the right side as a place of honor, traditionally in a clockwise circumambulation to the king, or as a special tribute to the sacred person[2]. With the rise of Buddhism, this form of worship was expanded. Circumambulation on the right around the stupa became a Buddhist ritual for making offerings and confessions. Sutra of Trapuṣa and Bhallika says: "In sutra and law, the system is to circumambulate on the right; if one circumambulates on the left, one is scolded by the gods". The Avatamsaka Sutra says, "When I circumambulate the pagoda, I wish all beings to be blessed and the path to be smooth". Circumambulation on the right has a great impact on the space of the architecture, which is characterised by the construction of a circumambulation path around the object of worship.

Prostration is considered the sincerest of the nine Buddhist worship rituals in The Great Tang Records on the Western Regions, "where the nine ways are concerned, the very only worship. .... Kneeling and praising virtue is called the best respect. If you are far away, touch the forehead and worship the hands; if you are close, lick the feet and rub the heels"[2]. The space required for prostration is very different from the Circumambulation. That is, there should be a larger space in front of the object to be worshipped, so that followers can salute directly to the idol, and the space behind can be closed. The circumambulation space includes a part of the worship space, because followers can perform the worship ceremony when they turn to the front of the Buddha statue, so it is a composite space. While the prostration space can exist alone.

### 2.3. Characteristics of worship space in Chaitya Cave

At the beginning of the excavation of Chaitya Cave, Buddhism was in the early stages of development, and its influence was not strong. It focused on practicality and simple decoration. Chaitya Cave has a circular plane with a dome on the top of the cave. The hemispherical bowl-shaped Buddhist pagoda occupies the main space of the cave. A narrow winding corridor is formed between the pagoda body and the cave wall, making the worship space simple.

With the promotion of Buddhism, more space was needed to gather believers, so Chaitya Cave was developed into a combination of a circular pagoda and a rectangular hall, shaped like an inverted U. The enclosed layout highlights the centrality of the Buddha worship space[1]. The worship space has developed into a complex space that mainly rotates right-handedly: Buddhist followers prostrate towards the stupa in the longitudinal space along the entrance of Chaitya cave, and then perform circumambulation.

Such as India's Karle (Karle) Cave. There are octagonal stone pillars on both sides of the hall, supporting the upper arch roof. The space is divided into four parts: the main room, the corridors on both sides and the semi-circular back room. The main hall in the middle is wide and high, and the side corridors on both sides are narrow and short. The pagoda is located in the back room, surrounded by columns that form a colonnade that allows Buddhists to chant sutras around the tower and worship.

## 3. The Development of Worship Spaces in Central Asian and Western Grottoes on the Silk Road

The ancient Silk Road, one of the world's earliest trade routes, facilitated the spread of Buddhism. With the popularity of Mahayana Buddhism, Buddha statues were created in Gandhara (northern India and Pakistan) during the Kushan Empire period around the 1st century AD. Under the influence of Gandhara art, Buddha statues gradually appeared in the interior of grottoes[3]. The combination of Buddha statues and pagodas has the greatest impact on the space of the grottoes. Initially, the Buddha statues were integrated into the Indian grottoes in the form of "image-tower integration", that is, a Buddhist niche was chiseled on the main bowl of the pagoda, and the Buddha statue was placed in the niche. The pagoda still plays a major role in the grottoes, and the Buddha statues play a subsidiary role and are the decoration of the pagoda. In order to pursue a religious atmosphere, the size of the Buddha statues gradually increased. The pagoda was also raised to coordinate with it, making the main room of the grotto taller. After the rise of Buddhism in Central Asia, the grotto space centered on Buddha statues gradually replaced the Indian-style grotto space layout centered on pagodas, and the worship space also developed local regional cultural characteristics.

### 3.1. The Great Buddha Cave

Around the third century AD, two open-air stone Buddhas facing east and west and more than 50 meters high were carved in Bamiyan, Afghanistan. The belief in the Great Buddha is the most distinctive feature of the Bamiyan caves. Although there have been huge pagodas in India, there has never been such a huge Buddha statue. When Buddhism spread to Central Asia, the way Buddhism spread changed significantly. People could more intuitively admire the Buddha's face and receive his baptism. In the Great Statue Cave, the Buddha statue is alone, majestic and tall. The space in front of it is not spacious. People can only look up in the small space. The head of the Buddha statue is slightly tilted forward, looking down at the sentient beings who are looking up to him. The eyes of the Buddha and the believers meet, making people feel the Buddha's attention and power.

There are paths at the feet of these two giants Buddhas where people can circle and worship. This method of worship space is different from India and has a profound impact on China.

### 3.2. Xinjiang Central Pillar Grotto Group

Going east via Afghanistan, Buddhism was introduced to the Western Regions of the Han Dynasty by land[4]. The ancient Kucha Kingdom with Kuqa as its center was a major country among the Western Regions. It was located on the Silk Road, a traffic artery between China and the West. In the second half of the 3rd century, Kucha Kingdom had become the center of Buddhism in Xinjiang. A large number of cave temples were built, and the central pillar-style unique to this area appeared, which not only adapted to the differences in local natural geology, but also retained the core function of worship.

The Kizil Caves are the largest of the Kucha Caves. Since the sandstone in Kizil is loose and unsuitable for digging large caves, local craftsmen simplified the stupa into a thick stone pillar. The lower part of the column is square, connecting upward with the left, right and back walls of the cave, and forming a low roof corridor below. There is a large arched niche in the middle of the front of the central column[5]. The wall above the niche and the roof of the corridor together form a larger semicircular space, making the entire central column similar to a mushroom shape. With the central pillar as the boundary, the entire cave is divided into two spaces, the front and rear. The front is wide and is the main chamber of the cave. The left and right corridors are connected with the back chamber to form a "concave" shape to form a circumferential right-handed worshipping space. Enter the main room through the doorway to worship Buddha and make offerings. Then, people can go from the main room around the central pillar through the left corridor into the back room, then exit from the right corridor and enter the main room to complete a complete right-turn worship activity. This inherits the right-turn function of the tower in the Indian Chatiya caves. The difference is that a rectangular Nirvana platform is carved out at the back of the back corridor, and a Nirvana statue is sculpted on it. In this way, an original cave shape with the most artistic characteristics of Kucha was born. On the one hand, the central pillar cave emphasizes right-turn worship around the tower pillars. On the other hand, there is a large niche on the front of the pillar, which is not only a symbol of the pagoda, but also the carrier of the Buddha statue. It is a combination of Indian pagoda worship and Central Asian Buddha statue worship[6]. This is because when Buddhism was introduced to China, Buddha statues had already been produced. Although pagodas also existed, it was no longer necessary to use pagodas to replace Buddha statues for people to worship. Entering the cave and worshipping the Buddha statue directly is more acceptable to ordinary believers.

### 4. Inheritance and Sinicization of Worship Space: Yungang Grottoes

Buddhist art spread eastwards from Xinjiang, and the first stop in the China was the Hexi Corridor. In 417 AD, Liu Yu, the general of the Eastern Jin Dynasty, conquered Yao's Later Qin Dynasty, and the monks of Chang'an fled in all directions, leaving Buddhism in Hexi as the only Buddhism center in China. At the beginning of the fourth century, Zhang Gui was appointed as the governor of Liangzhou. Worshipping Buddhism has become a common practice in Hexi. Liangzhou (now Wuwei City, Gansu Province), the political, economic and cultural center, also began the construction of cave temples. The architectural style is called the "Liangzhou Model"[7]. In this model, the main cave shape is still the center pillar Grottoes such as Dunhuang Mogao Grottoes, Jinta Temple (Zhangye, Gansu), Tianti Mountain (Wuwei, Gansu), Wenshu Mountain (Jiuquan, Gansu), and Thousand Buddha Caves in Matisi Temple. (Zhangye, Gansu) and other grottoes are represented. At this time, the spatial shape of the central pillar cave has not changed much. Compared with Kucha, it is closer to the pagoda in appearance. The bottom of the pagoda usually has a pedestal. Buddhist

niches were not only opened on the front wall of the central pillar but also on the other three sides. The corridor surrounding the central pillar changed from the low one in Kucha to the high one. The top of the corridor is mostly the same height as the top of the main chamber cave, which is flat-topped.

In 439 AD, the Northern Wei Dynasty destroyed Northern Liang and moved 30,000 Liangzhou officials and people (including 3,000 monks who participated in the defense of the city and were captured) to the capital city of Pingcheng (today's Datong, Shanxi Province), which then became the new center of Chinese Buddhism. Liangzhou monk craftsmen became the main force in the construction of Pingcheng Grotto Temple. With the courage of the emerging nation, the emperor of the Northern Wei Dynasty integrated Eastern and Western techniques to transform Buddhist grottoes into a new grotto style - the Yungang model. The stupa was changed into a Chinese pavilion-style tower, and then it transitioned from the tower cave as the center to the coexistence and equal emphasis of the tower cave and the palace cave. Finally, a layout style with the Chinese palace cave as the main body was formed. Correspondingly, new worship space have also been characterized.

#### **4.1. Circumambulation on the right in line with Chinese Buddhist rituals**

The center-pillar cave of Yungang Phase II is square in plan, with the Han-style pavilion pillar located in the center. This layout is different from the Indian and Xinjiang Grottoes. Grottoes in India and Xinjiang are divided into two spaces, front and back, while the space between the center-pillar and the four walls of the cave is divided into four parts, front, back, left and right. The shape of this cave combines the characteristics of the center-pillar cave and the traditional pagoda and temple architecture of the Central Plains. Functionally, it integrates the practice of meditation and repentance from northern and southern Buddhism, laying the foundation for the development of Chinese Buddhist rituals[8]. "Entering the pagoda to observe the statue" is an essential religious behavior for the practice of Zen. The Samadhi Sea Sutra of Contemplating the Buddha says, "Those who want to view the Buddha statue should first enter the pagoda, burn incense and scatter flowers, make offerings to the Buddha statue, worship the Buddha and repent". From the perspective of religious significance, the center pillar in Yungang Grottoes opened niche statue for meditation. The pillar is surrounded by a worship path to carry out the profession ceremony.

#### **4.2. Circumambulation on the right cancelled**

The large Buddha caves of Han Buddhism have evolved from the chaitya caves in Central Asia to the non-chaitya-style giant cliff carvings. The "Tanyao Five Caves" in the first phase of Yungang are representative of non-chaitya caves. They are five large caves dug into an oval plane. The cave roof is dome-shaped, with a door in front, and a huge seated Buddha statue. It is carved in the center of the back wall, backed by the mountain wall and cannot be surrounded. This type of cave has more than one passage leading to the outside of the cave, and there are two to three passages on the upper and lower levels. When believers pay homage to the giant Buddha, they need to walk up the path. The Buddha statue in the cave is tall and occupies most of the space with the space left for believers to worship very small. The support space for right-hand circumference is cancelled. After entering the cave, only by kneeling down and looking up can the believers see the full picture of the Buddha. The contrast in size between people and Buddha statues, coupled with the small space for worship, makes believers feel a sense of awe. The main reason is the new thinking of Northern Wei Li Emperor as Buddha. After the Sixteenth Kingdom of the Eastern Jin Dynasty, monasticism became the mainstream. They were originally subjects of the emperor, but now they have become disciples of Sakyamuni. So, whether the ascetics worship the emperor, and whether they recognize



and accept the management of the country, have become questions that northern and southern Buddhism must answer. The eminent monk Faguo of the Northern Wei Dynasty united the emperor and Buddha, put forward a new theory that the emperor is the current Tathagata (living Buddha), and cleverly transferred Sakyamuni followers back to the emperor's sect, catering to the psychological needs of the supreme ruler. The Tan Yao Five Grottoes are actually grotto statues of the five imperial ancestors. Therefore, the main Buddha is the symbol of the emperor to the greatest extent. There is no central pillar and no compartments. The worship space is only a single space for prostrations, and the "right circle" space disappears.

### 4.3. The use of transitional spaces

The construction method of eaves appeared in Yungang Grottoes, that is, the eaves are often cut out at the same time as the cave is being dug. Most of the eaves of this kind are carved into a three-bay palace, through which one can enter the interior of the Buddhist cave. This transformation has caused a huge change in the landscape of the cave. People can worship the statue not directly from the outside but by entering the building and then passing through the cave door, forming a completely enclosed worship space with multiple fronts and backs. When people enter the religious world from the human world, the cave eaves architecture becomes a transitional space that gradually settles the soul. The design technique of first suppressing and then ascending highlights the solemnity and mystery of the Buddhist country.

### 4.4. The development of procession space

Cave 7, Cave 8, Cave 9, and Cave 10 in the middle Yungang period are all Buddhist Hall caves, which belong to procession spaces for worship. To a certain extent, they are grotto spaces designed to adapt to the secularization of Buddhism and meet the needs of the increasing number of secular disciples to worship and offer Buddha statues. The grotto architecture is filled with the compassion of the Buddha. When more secular believers entered this space, the Buddha gave up a larger area to enjoy the offerings of human incense. The biggest difference between the Buddha Hall Cave and the Pagoda Pillar Cave is that the central tower pillar in the cave disappears and a niche is opened on the back wall. The space inside the cave is shaped like a temple or a Buddhist hall, hence the name. Due to the disappearance of the central tower pillar, the Buddha statue has been moved back to the rear niche, making the space in the cave appear more open and complete, which is more suitable for the ceremonial procession of Buddhists and the activities of secular disciples offering incense. The circular worship space created by the central pillar cave has disappeared and been replaced by a more intuitive worship space.

## 5. Conclusion

Indian Buddhist architecture has produced two most basic forms of worship space—right-hand space and prostration space. In Central Asia, Buddhist architecture has undergone great changes in style, but the basic prototype of the worship space is still composed of Indian Buddhist teachings, so it still follows the two worship spaces of right rotation and prostration. When we arrived at the Yungang Grottoes, we saw that they were influenced by both native India and Western Central Asia, and combined with the characteristics of the Han Dynasty to develop and evolve. Because the most respected object of Buddhist worship among Chinese people is the Buddha statue. Pagodas increasingly gave way to Buddhist halls, and accordingly, new features of worship spaces were formed. This is the conclusion we draw from the worship space of Yungang Grottoes.

## References

- [1] Zhang Bo, *Overview of the origins of worship spaces in Chinese Buddhist architecture [J]*. *Journal of North China University of Technology*, 2003 (12).
- [2] Ji Xianlin. *Notes on the Records of the Western Regions of the Tang Dynasty[M]*. Beijing: Zhonghua Book Company, 1985.P207.
- [3] Wang Nan, *Tower Cave to the East*, ,New Star Press, 2018,P22.
- [4] Rong Xinjiang. *Land or sea? —Review of the study of the way in which Buddhism was introduced into China in the Han Dynasty and its popularity [J]*. *Peking University History*, 2003 (1).
- [5] Miao Lihui, *On the Architectural Characteristics of the Central Pillar Grottoes of Kizil Grottoes*, *Journal of Xinjiang Normal University (Philosophy and Social Sciences Edition)*, 2006 (2).
- [6] Li Shangquan. *Also on the excavation of the Kizil Grottoes [J]*. *Dunhuang Academic Journal*, 2005(03), p122-133.
- [7] Su Bai, *Chinese Grottoes Research*, Beijing: Wenwu publishing house, 1996.
- [8] Huang Hetao. *Zen and the Spirit of Chinese Art*. Beijing: China Yanshi Publishing House, 2006.