

# *Compilation and Research of Plant Images in the Syama Jātaka Picture in Cave 127 at the Maijishan Grottoes*

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**Abstract:** Syama Jātaka Picture in Cave 127 of Maijishan Grottoes has preserved a large number of the highly skilled and eye-catching plant images. These plant images are different from the appearance of Buddhist mural paintings that first entered China from the western regions, that is, plane-background plant decorative images, but deeply influenced by the classical Chinese aesthetic view, and their form and techniques are closely related to the scroll landscape paintings at that time, while the original scroll landscape paintings in the Northern Dynasty are now difficult to see. The study of plant images in this picture provides a window for us to understand and recognize the artistic achievements of landscape painting in the Northern Dynasty. In addition, this paper sorted out and analyzed plant images and styles, and compared them with similar styles in Heluo region, Guanzhong region, northwest Hubei region, Sichuan Province, Dunhuang and so on by means of imagery methods. It was concluded that the plant style of Syama Jātaka Picture in Cave 127 of Maijishan Grottoes was directly influenced by the Central Plains style represented by Heluo region.

## 1. Introduction

The Cave 127 of Maijishan Grottoes is located at the highest point of the west cliff of Maijishan and is well preserved. The inner plane area of the cave is nearly 50 square meters, and the walls and roof of the cave are covered with murals. The existing murals are nearly 100 square meters. Syama Jātaka Picture (see FIG. 1) is located at the front slope of Cave 127 top. The painting is trapezoidal, with a base width of 7.35 meters, a top width of 4.61 meters and a height of 1.30 meters. The picture is created based on the "*Buddha Said Shanzi Sutra*". The picture unfolds from right to left. Interspersed with a large number of plant images. In this paper, the digitized results and line drawings of this drawing are used to sort out and classify the plant images and styles, and compare and analyze similar styles, so as to explore the origin and development of plant styles in this picture.



(Provided by Maijishan Grottoes Art Research Institute)

Figure 1: Maijishan Grottoes Cave 127 Syama Jātaka Picture.

## 2. The style, origin and development of plant images in Syama Jātaka Picture in Cave 127 of Maijishan Grottoes

The trees in this picture are rich in species, such as fan-shaped broadleaf trees, willow trees and cluster trees, which are common in Buddhist mural paintings, and poplar trees, which are rare.

### 2.1. Oval Crown (Poplar)





There are five groups of trees (including uncolored ones in the draft) with an oval crown, which is one of the main tree species represented in the picture. These five groups of trees have long oval crowns, straight and smooth trunks, grow in rows, and are divided into two types according to different states of dynamic and static (see Table 1). The characteristics of this oval crown of trees are similar to poplar.

The Northern Wei Dynasty *"Qimin yaoshu"* has a special introduction to the use, economic value and planting methods of poplar trees. In the Northern Dynasty, poplar was already a kind of widely planted tree, which provided the possibility to use the image of poplar in painting. In addition, it is worth noting that poplars were often planted in cemeteries during the Northern Dynasty. It also makes the image of "poplar" in ancient poetry often appearing in elegies or poems, related to death and the meaning of condolence. In this picture, these poplar-shaped trees are mostly concentrated in the scenes related to Shanzi's death. It can be seen that it often appears in scenes related to death, which is consistent with the meaning of "poplar" image related to death and having sustenance. To sum up, the author surmises that the trees with oval crowns in this figure should be aspen trees.

The representation of the tree in this picture is quite unique, especially the gesture of being blown by the wind. Instead of using the method of the "Spring silkworm spinning silk" to draw uniform lines and paint colors inside flat, the stylus has been dominated by the pen. The relationship between pen and color of the ink and the brush and the brushstroke can vividly reproduce the vitality of the tree, and describing the details of the leaves is completely absent. This species is found only in Cave 127 in Maiji Mountain. In addition, such trees are rarely found in works of the "Syama Jātaka Picture" in other regions. Only Cave 461 in the Mogao Grottoes of Dunhuang has similar tree species in the Syama Jātaka Picture, but there are the slight differences between them. The tree crown in Cave 461 in the Mogao Grottoes of Dunhuang is flat and straight at the bottom, while the tree crown in this picture is more rounded. Mogao Grottoes Cave 461 dates back to the Northern Zhou Dynasty.<sup>[1]</sup> It was opened later than Maijishan Grottoes Cave 127, even if it is the same tree species, Maijishan should have this style first. As Su Bai said, "When we discuss the eastern factors of Dunhuang Grottoes, we must pay attention to Maijishan Grottoes"<sup>[2]</sup>. We do not rule out that the pattern of the oval tree crowns (poplars) in the Mogao Grottoes was influenced by Maiji Mountain.

Table 1: Style classification of oval crown (poplars).

(Line drawings by Xi Wenbo)

Line drawing			
The first type(static)			
The second type(dynamic)			



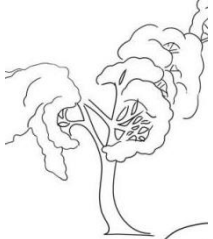
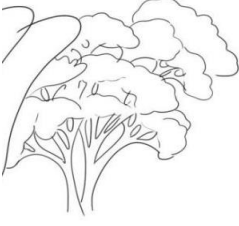

## 2.2. Fan Broadleaf Tree

Fan-leaf tree is one of the common sacred tree themes in Chinese Buddhist art, which was extremely popular in the Wei, Jin and Southern and Northern Dynasties. The fan-leaf tree should be originated from ginkgo tree, but its subsequent development did not refer to ginkgo tree specifically, but highlighted the sacred nature, shaped the ideal sacred tree representing the divine world, and gradually symbolized. Although fan-leaf trees already appeared in the Han Dynasty, such as the stone engravings on the west side of the south wall of the front chamber of the No.2 stone statue in Baishanguzi, Pixian County, Jiangsu Province, these trees did not become the mainstream in the Han Dynasty until they began to appear in large numbers in the Wei, Jin, Southern and Northern Dynasties and gradually formed a set of standardized templates, which were widely used in burials in the Central Plains, as far east as Jiankang and west as Dunhuang. It can also be used in Buddhist grottoes<sup>[3]</sup>. The reason why this kind of tree shape was so popular in the northern and Southern Dynasties should be the result of the two-way influence of Chinese traditional culture and Buddhist art.

There are a large number of fan-shaped broadleaf trees, about 8 of them, which are divided into two types according to different states of dynamic and static (see Table 2). The first type shows the trees stand quietly in a windless state. The whole tree canopy is like a pyramid, with narrow tips at the top and wide at the bottom, and the arrangement of branches and leaves is vertical. The connection between the leaves and the trunk is hollowed out, and the leaves stretch and fan out. Outline the trunk and crown with a well-spaced center. The trunk is twin and the branch nodes are more than half of the trunk. The second type of expression technique is to place heavy colors between the leaves to show the scenes of howling wind in the plots where the king looked for the blind parents to tell Shanzi about the incident reproducing vividly the gestures of trees collapsing and leaves swaying in the wind. In the second half of the scene, the king shot Shanzi by accident, led his ministers to inform the blind parents of Shanzi's death, and looked at Shanzi's dead body with his blind mother. In this scene, several fan-leaved trees are gathered together to represent a dense forest. Instead of "lacking the vividness of outstretched arms and fingers" as described by Zhang Yanyuan, these trees cover back and forth to create a deep and lush feeling of leafy space. This figure has a more mature representation of "deep" through the layout of plant images.

Fan-leaf trees also appeared on the south wall and the north side of the west wall of Mogao Grottoes 257 of Dunhuang in the Northern Wei Dynasty, but they were obviously very different from the fan-leaf trees in this figure. Painters in Dunhuang have not yet paid attention to the shading relationship, and still copied the silhouetted leaves of Han and Jin ancient methods without shading. Therefore, the possibility that the fan-leaf tree pattern in this figure came from the west is excluded. The "Ode of the River Goddess" (by artist Gu Kaizhi in the Eastern Jin Dynasty), portrait brick of the "Seven Sages in the Bamboo Forest and Rongqiqi", "Ningmao Stone Room"(527 AD), the "Buddha's Worship" in the south wall of Gongxian Grottoes No. 1 (completed in 520 AD<sup>[4]</sup>), the "Nirvana"(545 AD) of the Shaanxi Yan 'an statue tablet, all of which appeared similar fan-shaped broadleaf trees. The shape of the fan-shaped broadleaf tree in this figure is closest to the "Ningmao Stone Room", followed by that of the "Buddha's Worship". On the contrary, the style of this picture is quite different from that of the statue tablet the "Nirvana" in Yan 'an, which is closer to Guanzhong area. It can be seen that this picture directly inherits the Central Plains style of Heluo area in the late Northern Wei Dynasty represented by the "Ningmao Stone Room", and the fan-shaped broadleaf trees in this picture do not adhere to a fixed pattern but have their own originality, such as the dynamic tree performance under the wind is extremely realistic and vivid, which is extremely valuable.

Table 2: Style classification of fan broadleaf tree.  
(Line drawings by Yang Xiaodong and Xi Wenbo)

Line drawing			
The first type			
The second type			

### 2.3. Broad Rounded Crown (*Salix Matsudana*)

Only one tree of this kind can be seen in this picture (see Figure 2), with a broadly rounded crown and two branches from the main trunk. The branches are luxuriant and the tips of the tree are slender and upward. Due to the long history of color peeling, most of the leaves have become blurred, but can be discerned from the remaining leaves, the leaves are alternate, narrowly lanceolate, apex gradually pointed, base cuneate. The above characteristics should belong to the salicaceae, but they are not our common weeping willows, but conform to the characteristics of *Salix matsudana*, with slender branches, upright or slanting. *Salix matsudana* has a long history of planting in China, growing in a wide range of areas, in the northeast, North China Plain, northwest Loess Plateau, west to Gansu and Qinghai, south to the Huaihe River basin and Zhejiang, Jiangsu and other places.



(Line drawings by Yang Xiaodong)

Figure 2: *Salix matsudana* of Majishan Grottoes Cave 127 Syama Jātaka Picture.



### 2.4. Bused Tree

Bused trees do not refer to a single tree species, and all relatively low plants in this figure can be collectively referred to as bused trees. According to their general characteristics, bused trees can be divided into two categories (see Table 3). Type A is shaped like a small pine and cypress, with a triangular crown, and grows in rows between hillsides. Type B is similar to the shape of the sycamore tree, the crown of the tree is wide round, like a hat on the trunk. These two types of tree shapes are relatively simple. They can represent the distant view of the hilltop bused trees on a high

mountain, can also represent the near view of the low trees on the slope of the earth, and even can be used as a standardized "scattered parts" to be freely assembled.

In this figure, the crown of the B-type bused tree is broadly round, similar to the sycamore tree. Similar tree shapes are popular in the north and south. This can be seen in several statuary tablets unearthed in Wanfo Temple in Chengdu during the Southern Dynasty, the "Buddha's Past Life as Prince Mahasattva" (505-523) in Binyang Zhong Cave in Longmen Grottoes, the "Ningmao Stone Room", Cave 296 in Mogao Grottoes (Northern Zhou Dynasty), and the "Sun Meditation of Sutra of Infinite Life" in Cave 16 in Kumtura (Early Tang Dynasty). It can be seen from the comparison of images that this picture is inherited from the styles of the "Buddha's Past Life as Prince Mahasattva" and the "Ningmao Stone House", and later transmitted to Dunhuang, with strong decorative properties of patterns. For example, the overall outline of the bused tree shape in Cave 296 of Mogao Grottoes is oval, and the left and right sides are symmetrical. These factors, such as equality, filling in the blank and symmetry, all indicate that the Dunhuang bused tree is still just a decorative pattern in the shape, but does not really fit the aesthetic concept of the Central Plains tree shape as in this picture. Although its appearance is similar but its performance is more general from the early Tang Dynasty to Kumtura.

Table 3: Comparison of bused tree.  
(Line drawings by Xi Wenbo )

Type A	
Type B	

### 3. Conclusion

1) The plant images and patterns in this figure are obviously from Heluo area in the late Northern Wei Dynasty. What is more striking is that even the Guanzhong area, which is closer to Maiji Mountain, is far less similar in style than the Heluo area and Maiji Mountain. It does not rule out the possibility that the main craftsmen responsible for the construction of this cave came from Luoyang.

2) The plant images and their styles were directly influenced by the Central Plains culture and similar styles spread from east to west. If the bused tree style was spread to Maiji Mountain in the Western Wei Dynasty, a similar style was spread to the Kumtura Grottoes from northwestern in the Tang Dynasty. Some plant images and their patterns in this figure also appeared later in Dunhuang, indicating that some patterns of Maiji Mountain may have influenced Dunhuang. For example, similar patterns of poplar trees did not appear in Cave 461 of Mogao Grottoes until the Northern Zhou Dynasty, and similar patterns of B-type bused trees appeared in Cave 296 of Mogao Grottoes during the Northern Zhou Dynasty.

3) Many forms and techniques in this plant image are closely related to the landscape painting. The period of Wei, Jin, Southern and Northern Dynasties was the era of the awakening of the landscape painting. And the Central Plains painters began to think and practice on how to simulate the deep space in the picture, such as Zong Bing in the Southern Dynasty. It directly states that once

the visual law at different distances is reasonably applied to painting, it can simulate the spatial depth of nature between square inches. The Syama Jātaka Picture in Cave 127 of Maiji Mountain also made many attempts to create a profound sense of space. The picture as a whole is composed horizontally, basically following the form of the upper part of the sky and the lower part of the ground. The upper part of the overlapping mountains make the horizontal two-dimensional plane have three-dimensional depth, which enhances the temperament of the mountain scenery. The trees are not arranged on the same horizon but back and forth to create a lush sense of depth. The mountains in the distant view are densely packed with trees. It is impossible to see the contrast between the specific tree species and the concrete realistic trees in the foreground. And picturesque trees and leaves are divided into colors and so on.

## References

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