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# Visual Analysis of Buddhism Art in Dunhuang

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### **Abstract**

Mogao Grottoes of Dunhuang are the largest and have the most abundant Buddhist arts in northwestern China. Mogao Caves combine the art of painting, painted sculpture, and cave painting. It has a long and influential history, but it is rarely recorded in history due to its special geographical location. Most of the Dunhuang Grottoes' painted sculptures and cave paintings are Buddhist in content. These works of art provide an insight into the process of integrating foreign Buddhism with traditional Chinese culture. To analyze the visual art of Buddhism in Dunhuang, researchers revisit the historical context of the time and find out the ancient Greek elements in Dunhuang's statues and murals from the perspective of the fusion of Eastern and Western cultures. From the perspective of techniques, researchers analyze Dunhuang artworks through its particular materials, which reflects the working wisdom and devout Buddhist beliefs of the ancient Chinese people.

# **Keywords**

Dunhuang; Mogao Grottoes; Buddhism; Greek art; Materials; Votive.

### 1. Introduction

The city of Dunhuang locates at the westernmost of the Hexi Corridor, also at the intersection of Gansu, Qinghai, and Xinjiang provinces. Dunhuang is one city on the Silk Road. From the 4th to the 14th centuries, the Silk Road connected China and Rome, passing through many important cities, including Tibet, India, Turkestan, Kashi, and Baghdad (Figure 1). The Silk Road is not only a trade route but more importantly, it is a highway that connects information and transmits different cultures. According to Baron Ferdinand von Richthofen, the Silk Road took on many types of exchanges [1]. Silk is one of the most important goods carried on the road. Also, the steady stream of travelers exchanged vegetables, metals, and paper along this road. Behind these trades, creatures, technological tools, materials, ideas, and vast cultures moved on the land route.

The direct exchange of religion is common to see in the Silk Road, such as Zoroastrianism, Buddhism, Nestorianism, Manicheism, and Islam [1]. With art and ideas, Buddhism originated in India and later spread to China in the 6th century B.C. along the Silk Road [2]. Mogao Caves were built around 360 C.E. At that time, when Buddhist pilgrims passed through Dunhuang, they tried to carve caves in the cliff. They built shrines, dwellings, and places for sacred sites and artwork. They carved hundreds of sculptures, painted hundreds of cave paintings, made hundreds of shrines on the cliff. Therefore, Mogao Caves became the unparalleled treasure trove of ancient Chinese Buddhist art.

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Figure 1. A map of ancient Silk Road

# 2. The Relevance to Ancient Greece

#### 2.1. Eastern Buddhism and Western Faces

The art of Gandhara Buddha statues is considered as the origination of Chinese Buddhist statues [3]. In ancient India, Gandhara was a significant region on the Silk Road. It was an important communication hub where different ancient cultures came together. Therefore, a wide range of aesthetic techniques and aesthetic ideas were absorbed into Gandhara art. Artistic freedom and openness are characteristics of Gandhara art. In 327 B.C., Gandhara was conquered by Alexander the Great and it became a part of the Indo-Greek Kingdom. In the regional integration, Greco-Buddhist art appeared at that region.

Gandhara Buddha statues have the facial features of the Greek race. Most of the Greek statues' facial features are based on Alexander the Great's looks, that is, wide eyes, a little opened mouth, an aquiline nose, and lion-like hair (Figure 2). This kind of Greek aesthetic was passed along the Silk Road to Gandhara. Therefore, Buddhism statues in Mogao Grottoes Caves (Figure 3) also remind people of the face of Alexander the Great. Unlike the facial features of Orientals, this Buddha also has a tall nose, deep eyes, and thin lips. In Mogao Grottoes Cave 254 (Figure 4), there are countless Buddha statues with "western face".



**Figure 2.** Head of Alexander the Great, from Pella, Greece, third century bce. Marble, 19 high. Archaeological Museum, Pella.

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Figure 3. A Buddhist statue in Cave 248, which has the facial features of Westerners.



Figure 4. A Buddhist statue in Cave 254

# 2.2. The Dynamic Beauty of Statues

Ancient artists tried to create "perfect" Buddha statues in Dunhuang. They represented statues in real human beings' posture. Most statues' legs appear to be in a dynamic position. One leg is bent at the knee while the other one is standing straight to hold the weight. It is one typical position in Greek and Roman standing statues. Through this kind of design, Greek statues present the beauty of balance and harmony. Praxiteles is one of the three greatest sculptors of the Late Classical period, and Aphrodite of Knidos (Figure 5) is his famous artwork [4]. The sculptor depicted the goddess is about to step into the bath. Aphrodite's gesture conforms to the classic Greek statue's standing posture. Her right hand is taking something that draws the audience's attention to her right hand. The right leg is bent so that it seems that all the movements take place on the right half of her body. Her weight rests on her straight left leg. Praxiteles's Aphrodite is not a cold and remote image but has more human qualities and is more intimate to the audience.



**Figure 5.** Praxiteles, Aphrodite of Knidos. Roman copy of a marble statue of ca. 350–340 bce. Marble, 69 80 high. Musei Vaticani, Rome.

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In the Mogao Caves, most of the standing figures stand upright on their legs, but the upper body is tilted. In other words, the lower body of the Greek sculpture and the Dunhuang Buddha is mostly different, but the upper part is very similar. In Mogao Grottoes Cave 45, there are three statues of Buddha in different standing positions (Figure 6). All three have different appearances, wear different costumes, and all stand in an interesting posture. Two statues on the left both have upright legs and slightly inclined bodies. The middle one's hips lean slightly to the right side, and his legs are both tilted to the right. It is a relaxed and leisurely way of standing when the center of gravity shifts to the right. The statue on the right side keeps balance through his waist, when his upper body bends to the left side. With no movement in his legs, the statue achieved balance through the movement of his waist and shoulders.



Figure 6. Three statues of Buddha in Cave 45

### 2.3. Kalavinka and Siren

There are many supernatural, mythological characters in the Dunhuang murals. A peculiar creature, which has a human head and a bird's torso. Its image appears several times in murals featuring banquets. This creature has a name in Indian Buddhism, Kalavińka. In Cave 45, there is a Kalavińka standing in the center of the stage (Figure 7). In Cave 360, Kalavińka is playing the lute (Figure 8). According to these images, the role of Kalavińka can be broadly inferred to be closely related to entertainment, such as playing music. Kalavińka always preached the Dharma with its fine voice.



Figure 7. Kalavinka in Cave 45 mural

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**Figure 8.** Kalavinka in Cave 360

An American historian, Edward H. Schafer, suggested that the appearance of Kalavińka in Dunhuang murals can be connected to Siren in Greek mythology [5]. Kalavińka and Siren have almost the exact same appearance. There are three Sirens on the Athenian red-figure stamnos in 5th B.C. (Figure 9), and all of them have a human head, a bird body, and a pair of wings. We can find many quotes about Siren in classical literature, such as Homer's Odyssey and Ovid's Metamorphoses. It is interesting that Sirens also have good sound. They can induce sailors to death by using their sweet voice [6]. Two mythological creatures frequently appear in Greece and Dunhuang artworks, also share the same appearance and roles. Accordingly, the correlation between the two cannot be ignored.



**Figure 9.** Sirens on the Athenian red-figure stamnos in 5th B.C.

# 3. Idealism in Dunhuang Art

Bhirasri commented on Buddha sculpture as, "The human forms, simplified and idealized, are exquisitely modeled, and there is no disharmony between the abstract idea and its material realization."

Most of the Dunhuang Buddha statues have small heads and broad shoulders, long arms, and well-proportioned bodies. In Cave 321 (figure 10), two women are standing on either side, and two men are standing in the middle. Women indicate their gender with their exposed breasts and bellies. The waist of the Buddha statue is not obvious. The lines of the waist and the upper body are integrated, which mainly reflects the fluency of the statue's lines. Simultaneously, the Buddha statue's wrist exceeds the crotch a lot in the horizontal direction, indicating that the length of the arm is not in accordance with the normal human body proportion. These two characteristics indicate that Dunhuang Buddha statues do not follow strict realism but represent idealism.

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**Figure 10.** There are five statues in Cave 321

The Great Stupia at Sanchi built in the 3rd century B.C. has many exquisite reliefs with Indian Buddhist characteristics (figure 11). Goddesses always have big breasts and big hips, which reflect idealism in the sculpture. Different from Indian statues, goddesses in Mogao Caves are slender, with medium-sized breasts and prominent bellies. The introverted body portrayal and the voluptuous female form reflect the unique classical Chinese aesthetic.



**Figure 11.** Reliefs on The Great Stupia at Sanchi in 3rd-1st c. B.C.

## 4. Particular Materials

# 4.1. Clay Sculptures

Buddhist stories are the subject of Mogao Grottoes art in Dunhuang. The sculptures in grottoes are the main deities enshrined in Buddhism. These sculptures are always placed in prominent positions. Because the sculptures in the grottoes play a leading role in the entire grotto art, the murals in the cave are developed around them. Since Mogao Grottoes sit in the desert area in Northwestern China, where mostly provides gravel rocks with loose texture, which are not suitable for carving. Due to the scarcity of good-quality stones, clay became the major material for the Buddha statues [7]. However, the sculpture art does not weaken the concept of sacredness and idealization that embodies deities because of the limitation of materials. This is reflected in the carving techniques. From various statues, most of the statues present stone carving skills, and the ductility of clay has not been fully reflected. At the same time, to appeal to Buddhists, who came to worship the deities, the clay sculptures were decorated by diverse colors [7], which are also used in murals.

# 4.2. Mineral Pigments

The colors of Dunhuang murals are bold and exaggerated with great imagery beauty and strong sense of decoration. While the complementary colors and background colors match each other

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naturally, making the mural colors full of rhythm. The pigments for the Dunhuang murals are mainly derived from the natural minerals. The grottoes preserve a large number of painted artistic pigment samples from more than ten dynasties from the Northern Dynasty to the Yuan Dynasty for thousands of years, which reflects the history of importing and manufacturing of minerals. Many of these materials were introduced to China from West Asia along the Silk Road. For example, there is a record of lapis lazuli in Great Tang Records on the Western Regions [9]. It indicates that the lapis lazuli was obtained from the upper reaches of the Kokcha River in northeastern Afghanistan today. With scientific research, no lapis lazuli mineral resources have been found in China up to now [9]. Thus, it can be inferred that the blue used in the murals was obtained from the mineral purchased from other Central and West Asian countries through the Silk Road trade [9].

Moreover, Li Zuixiong mentioned in the source of cinnabar in his Dunhuang Mogao Grottoes Colored Plastic Pigments Analysis and Research [10]. He pointed out that the early cinnabar came from Central Asia and other countries. In the middle and late stage, there is more production of cinnabar in China [10]. Sanwei Mountain in Dunhuang is one of the mineral extraction sites [11]. Also, miniumite is easy to oxidize and become black due to lead content. This is the reason why there are many black blocks on the murals [9]. Therefore, the use of mineral pigments in grotto murals occupies a large proportion. Minerals make pigments still bright even after thousands of years [11].

### 4.3. The Use of Gold

In addition to using colors to reflect the nobility of the Buddha statues, murals and sculptures were decorated with gold foil to make the color bright and eye-catching. In the early stage, the gold was used in the bracelets, necklaces, and battle robes of Bodhisattva's arms and statues of the king, such as the ones in caves 263 and 285. The technique of sticking powder with gold appeared in Dunhuang Cave 263 (Figure 12) [12]. Then, a large number of golds was used on the murals and colored sculptures of the Sui Dynasty, such as caves 420 (Figure 13) and 427 (Figure 14). The same technique used in the early phase can be found on the head ornaments of the Buddha, the wreaths, and the armor of the clay sculpture of the warrior on the murals in Cave 57 (Figure 15) and Cave 45 (Figure 16) of the early Tang Dynasty in Dunhuang [12]. The gold was mostly used in the Tang Dynasty Strengthen the face, body, disciples of Buddha and Bodhisattva. At the same time, the color paintings in the Dunhuang Sui Grottoes used flat gilding and gold tracing, such as the gold ground of sunk panel and the edge of the flower leaf drawing [12]. In the Dunhuang color paintings from the late Tang to the beginning of the Song Dynasty, there were two methods of decorating with gold. One is pasting gold on the piled mud, the other one is pasting gold on the piled powder [13].



**Figure 12.** West Side of the South Wall, Part of the Three Buddhas, Cave 263. Bodhisattva's arm rings and other accessories were originally gold

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Figure 13. Part of the Three Buddhas, Cave 420



**Figure 14.** Central Column West Facing Niche, Cave 427.



Figure 15. South Wall, Part of Bodhisattva, Cave 57.



Figure 16. The South Side of the West Wall, Part of Bodhisattva, Cave 45.

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### 5. Votive and Donors

For Buddhists, the construction of exquisite Buddhist objects such as pagodas, statues, and murals have karmic benefits. These Buddhist work serves as votive. The votive is the medium for people to ask for a better afterlife. According to Buddhism, Karma is an important part of Buddhism. It is the energy produced by one's actions and the ethical consequences of these actions. Dharma is opposite to Karma. Karma affects one's afterlife or rebirth [14]. For instance, the north wall in Mogao Grottoes Cave 285 consists of the upper and lower sections. The upper section is occupied by seven preaching scenes, each containing a votive text and donor figures at the bottom [15].

Buddhist donors in Dunhuang come from various classes, including rulers, local clans, merchants, farmers, artisans, monks, common people, and foreigners. Buddhist icons were popular material expressions at the time. In the works that reflect the richer or elite donors, the common characteristic is the presence inside the picture frame of portraits of the donors who had them made as offerings to be dedicated to the local Buddhist establishments [16]. In Cave 61 (Figure 17), on the south, north, and east walls are eleven sutra illustration altogether and below these illustrations are Buddha's life stories and donor figures. Specifically, there are tens of donor figures of the Cao family and inscriptions preserved on the east, north, and south walls. On the upper part of the east wall is a Vimalakirti sutra illustration and below are donor figures [17]. In Cave 420, to the north of the inscription are two male donors of the Song dynasty, and to the south there is a one female donor. The upper part of the south side of the entrance is covered with the thousand Buddha motifs of the Sui dynasty, and the lower part with six male donors painted in the Song dynasty. There are two preaching scenes on the upper part of both the south and north sides of the entrance, and there are vague paintings of donor figures below the preaching scenes [18]. This tendency to insert one's own self-expression into the icon reflects a new trend in Chinese Buddhist art, that is, to record dedication visually and literally is almost as important as the deities depicted by the icon itself [16].



**Figure 17.** East Wall, the Female Donors of the Cao Family, Cave 61.

### 6. Conclusion

The Dunhuang Mogao Grottoes art that locates in the desert for thousands of years integrates architecture, sculpture, and mural painting. On the basis of inheriting the fine art traditions of the nationality of the Ancient China, it presents the brotherhood with the countries in the Western regions along. The ancient artists also absorbed and melted the foreign expression methods from Greek, so that the Dunhuang art developed the Buddhist artwork with both western and Chinese national characteristics, especially reflected in the images of Buddhist

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deities and the materials. Now Dunhuang studies has become a subject that scholars around the world focus on. Dunhuang art not only has important research value for the addendum and collation of ancient documents in the China but also provides precious historical materials for the study of ancient history in Asia and the West.

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