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# An Exploration on Statue Creation and Grotto Construction of Donors in Ancient Dunhuang

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**ABSTRACT:** The Dunhuang grottoes are large in scale, and have stood the test of time. One of the main reasons for this is that feudal rulers vigorously advocated Buddhism and personally participated in the construction of these grottoes. This paper mainly explores the relationship between ancient Dunhuang's donor portraits and the construction of the grottoes, delving into the relationships between the donor portraits and cave construction, as well as the relationships between the donors, the craftsmen and the grotto construction, in addition to the compensation and origins of the craftsmen from various perspectives.

**KEY WORDS:** Dunhuang donors, portraits, grotto construction

#### **INTRODUCTION**

From the 4th to the 14th century, the ancient Dunhuang prefecture was influenced by the spread of Buddhism and Buddhist art. Ancient artists built a number of grottoes here, such as the Dunhuang Mogao Grottoes, West Thousand Buddha Cave, Subei Wugemiao Grottoes, Anxi Yulin Grottoes, and East Thousand Buddha Cave, collectively known as the Dunhuang Grottoes, among which the Mogao Grottoes are the most typical [1]. The Dunhuang grottoes are large in scale, and have stood the test of time. One of the main reasons for this is that the feudal rulers vigorously advocated Buddhism and were personally involved in the grotto construction. The donors and grottoes were interdependent. Without the donors, there would have been no grottoes, and vice versa [2]. This paper mainly explores the relationships between the ancient Dunhuang donors, craftsmen and the construction of the grottoes.

# **Donors in the Buddhist grottoes**

Buddhist donorhood and Buddhism likely came into being at the same time, with Buddhist grotto donors appearing with the construction of grottoes. India is the earliest birthplace of both Buddhism and grotto donor portraits. Buddhism was first introduced to Xinjiang, China, and the earliest grottoes were also dug in Xinjiang. The earliest Buddhist grotto donor portraits appeared in Xinjiang [3].

Since the emergence of the Buddhist grottoes, many donors had been associated with and supportive of the grottoes. The earliest Buddhist grottoes originated in India, the birthplace of Buddhism <sup>[4]</sup>. Portraits and statues of donors also originated in India. They could be seen in the carvings and murals of early Buddhism or Hinduism, but they were rare and lacked inscriptions. If careful attention isn't paid to the images and clothes of the lay people, as well as their pious postures and facial expressions while holding flowers or incense burners, in addition to their position standing under the Buddha, it would be difficult to

58

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confirm that they are portraits of donors <sup>[5]</sup>. Xiang Yifeng believed that all the grottoes were built by donors. The famous Ajanta Grottoes were initiated by the eminent monk Achala Arahant. According to the existing cave building inscription on the main wall of the front court of Cave 26, the benefactor for the cave was a powerful minister <sup>[6]</sup>. Other grottoes in Xinjiang, without exception, have a large number of donor portraits. The donor portraits in the Northern Dynasty in Dunhuang were relatively the same as those in the grottoes of India and Xinjiang, which were small and painted under theme paintings or niches. It is a great pity that inscriptions about donors of the grottoes in India and Xinjiang are rare today <sup>[7]</sup>.

However, the Dunhuang Grottoes have kept a large number of records about grotto digging, portraits and statue creation. Among the 492 caves preserved in the Mogao Grottoes alone, almost all of them have portraits of donors, and each portrait is accompanied by a title inscription. According to rough statistics, there are about seven thousand existing title inscriptions <sup>[8]</sup>. These inscriptions are the records of real people and things at that time, and most of them cannot be found in historical records. According to statistics, there are 281 caves with existing donor portraits in the Mogao Grottoes, accounting for 2 / 3 of the total number of caves, and the number of donor portraits exceeds 9,000 <sup>[9]</sup>. Meanwhile, a large number of donor images have been unearthed from the Dunhuang Sutra Cave. These include tens of thousands of donor images preserved in the murals of Dunhuang Grottoes, dating from the Sixteen Kingdoms Period to the Yuan Dynasty, as well as hundreds of donor images dating to the Tang Dynasty, the Five Dynasties and early Song Dynasty being preserved in silk paintings, linen paintings, paper paintings and other paintings unearthed from the Sutra Cave in the Mogao Grottoes <sup>[10]</sup>. And in the unearthed paintings are preserved a large number of donor notes, vows, prayers and title inscriptions. This data is a very rare and precious first-hand account, enabling study of the politics, military, economy, religious beliefs, ethnic groups in ancient Dunhuang, Hexi and the Silk Road, as well as the history of cultural exchanges between China and the West, which has attracted attention from researchers and scholars at home and abroad.

The donor portraits in the Dunhuang murals were created with the grottoes. In the earliest cave, Cave 268, one can find the portraits of donors dressed in Han clothing. In Cave 275, there are portraits of donors dressed in Hu clothing, which displays the ethnic characteristics of Dunhuang. The 10th century AD was a late period in the construction history of Dunhuang grottoes. At that time, in recounting the 600-year history of the creation and development of Dunhuang grottoes, the literati in Dunhuang remarked that the Dunhuang grottoes had "flourished under the building effort of the kings and ministers, and the faith had thrived with the effort of both monks and lay people." [11] The kings and ministers here refer to the emperors, generals and local officials related to the Dunhuang Grottoes. The biggest characteristic of the construction of the Dunhuang grottoes is the extensive existence of family caves. We can see from the large number of donor portraits in the family caves that the construction of the family caves cannot do without the participation and support of the family's monks. The construction and management of the family caves must have been one of the main daily affairs handled by some monks [12]. There are many portraits of donors and supporting monks in the Dunhuang Grottoes. In particular, the supporting monks are representative in terms of image, location and scale. Most of them were arranged in front of the portraits of the secular donors, and appeared as the guiding figures, which should be the so-called 'guiding monks". This is a common phenomenon amongst the donor portraits in most caves. Sha Wutian believes that the monks and nuns appeared respectively before the portraits of the male and female donors in the caves as the guiding monks or nuns. It is a common phenomenon amongst the donor portraits in the caves of past dynasties in Dunhuang. The common phenomenon indicates that Buddhism was regarded highly, and the social status of the monks was quite high; it also indicates the monks' specific participation in the grotto construction and the guidance of monks to secular people in terms of grotto faith and practice<sup>[13]</sup>. This indicates that their status and identity were higher than the secular donors, and once again shows that they were also specific participants in the construction of grottoes. From another level, it indicates that they played an important role in the construction of the grottoes. Zhang Xiantao's article intends to discuss the relationship amongst the donors, craftsmen and grotto construction based on the basic data of the donor portraits in Dunhuang grottoes and the donors of the grottoes in the Western Regions 59

Print ISSN: 20535783(Print)

Online ISSN: 20535791(online)

#### Donor portraits and grotto construction

The study of the donor portraits and grotto construction activities in Dunhuang has an early start. As early as 1919, Wang Guowei studied the donor portraits of Princess Yutian and Lady Cao Yuanzhong in two silk paintings, "Portrait of Ksitigarbha Bodhisattva" and "Portrait of Tankasri Avalokitesvara" from the Dunhuang Sutra Cave collected by Jiang Ruzao from Zhejiang in the articles of "Postscript to the Donor Portrait of Ksitigarbha Bodhisattva and Prince Yutian" and "Postscript to the Portrait of Avalokitesvara Bodhisattva Painted by Lady Cao" [14]. However, since the silk paintings are mainly collected by collection institutions of foreign countries such as Britain, France, and Russia, it is inconvenient for domestic scholars in China to appreciate and observe them, who thus have had rare chances to study them at leisure. The academic community began to pay attention to this issue again in the 1930s. In the 1980s, Mr. Li Zhengyu covered related contents in the article "Brief Records about the Ancient Temples in Dunhuang" [15]. In the "Interpretations of the Stone Tablets, Inscriptions and Verses in Dunhuang" [16] of Zheng Binglin, the collected stone tablets, inscriptions and verses include many materials reflecting the Buddhism supporting activities among the people of all classes, such as copying scriptures, building grottoes and creating statues and portraits in Dunhuang during the Tang and Song Dynasties. The "Collection of Vow Texts in Dunhuang" compiled by Huang Zheng and Wu Wei<sup>[17]</sup> also contains vow texts reflecting various Buddhism supporting activities such as Buddha statue parade, burning lanterns, erecting umbrellas and fasting in the Tang and Song Dynasties. The articles "Donors of Mogao Grottoes in Dunhuang during the 9<sup>th</sup> and 10<sup>th</sup> Centuries--Analysis of the Quantity of 'Title Inscriptions about Donors of Mogao Grottoes in Dunhuang' Compiled by Dunhuang Academy" and "Title Inscriptions about Donor Portraits in Mogao Grottoes in Dunhuang" [18] published by Japanese scholar Doi Yoshiwa, "Research on Title Inscriptions in Mogao Grottoes in Dunhuang" [19] published by Xu Ziqiang, "Reading Notes on Title Inscriptions about Donors of Mogao Grottoes" [20] published by Wang Huimin, etc., all made a detailed study of the quantity and composition of donors in Dunhuang and the title inscriptions about donors in the caves. All of them are the fruits of important academic value in the literature research on Dunhuang donors. The articles "Research on the Donors in Three Grottoes of Dunhuang Built in Northern Liang and Related Issues" and "The Famous Paintings of All Dynasties and Early Dunhuang Murals—— Relationship between Paintings of Southern Dynasties and Early Dunhuang Murals" [21] published by Ning Qiang mentioned that the authors of the early Dunhuang murals were mainly "court painters" of the locality separatist regimes, local government officials, literati painters, and painters who served as attendants, rather than general folk craftsmen. Therefore, the artists of the early murals in Dunhuang should be mainly official painters rather than local painters. The article "Statue Creation and Buddhism Supporting Activities among Ancient Donors in Dunhuang" [22] published by Zhang Xiantang, on the basis of discussing the statue creation activities of Dunhuang donors, summarized the development context of the donor portraits in Dunhuang, and explained the main types of the portraits and statues creating and Buddhism supporting activities among donors in ancient Dunhuang. The author believes that the statue creation activities in the Dunhuang area lasted for more than one thousand years, from the 4th century to the 14th century AD, thus forming the long and splendid tradition of Dunhuang Buddhist art. According to the different places and materials used for the creation of statues and portraits, ancient Dunhuang statues and portraits mainly include those in grottoes, temples, monasteries, Buddhist halls, etc. In particular, in the article "Donors in Dunhuang Murals", the French scholar Michel Soymie made use of the donor images in Dunhuang literature, the Caves 275 and 285 and dozens of paper and silk paintings collected in England and France to study the donor portraits of Dunhuang from multiple dimensions, including the purpose of funding the painting, and in particular mentioned craftsmen and artisans<sup>[23]</sup>. In addition, the donor portraits of the Mogao Grottoes reflect the historical features of the Dangxiang and Mongolian people engaged in the construction of Buddhist grottoes and the Buddhism supporting activities. Zhang Xiantang pointed out that from the Northern Dynasties, the Sui Dynasty to the Tang Dynasty, the Five Dynasties and the early Song Dynasty, the concept of Dunhuang donors in statue creation and Buddhism supporting activities gradually increased the artistic content of realistic utilitarianism and secular life, enabling us to see the evolution track of the sinicization and secularization of Buddhism in the Tang and Song Dynasties from a specific perspective.

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Research on the statue and portrait creation and grotto construction activities of donors has increased in recent years. Experts and scholars have explored the grotto construction by donors from different aspects. For example, while studying the donor portraits in Dunhuang, they have studied their statue and portrait creation, which was also involved in analyzing the donor portraits of Princess Yutian and the wife of Cao Yuanzhong in the silk paintings. All these indicate that the research on donors has shifted from the longitudinal studies we were familiar with in the past to more specific and in-depth horizontal studies.

#### Donors, craftsmen and grotto construction

Frequent Buddhist ceremony activities and the building of the grottoes and temples required a lot of manpower and material resources. Unlike the Mogao grottoes in Dunhuang, the historic sites of Buddhism in the Western Regions had not left many records about craftsmen digging grottoes and building temples. However, from the murals, title inscriptions, account books, tablet inscriptions in grottoes and temples and documents unearthed in Turpan, we seem to see a large number of artisans busily digging grottoes and building temples. How many grottoes and niches have been built in the Mogao Grottoes in the course of more than a thousand years? How many were built in each period? Different answers are given by historic records and experts. This problem can be investigated from the perspective of the use of the cliff surface. In 1955, Chen Mingda published an "Investigation Report on Dunhuang Grottoes" [24], which proposed that only the counterforts have been preserved at the eaves of Caves 196 and 427. The front chamber of Cave 427 of Mogao Grottoes features three-span four-pillar wooden eaves of the Song Dynasty. According to the ink inscription on the beam above the entrance of Cave 427, ".... the eighth year of Qiande in Song Dynasty..." (970 AD), we can infer that the cave was rebuilt during the period of Cao Yuanzhong's reign of Dunhuang. It can be confirmed that the eaves of Cave 427 were built in the third year of Kaibao (970 AD). Judging from the details of existing caves of the late Tang Dynasty, such as the lintel, they were mostly rebuilt from the caves dating to the Sui Dynasty or the Middle Tang Dynasty, which not only indicates that there was no room for building new caves in the cliff surface during the late Tang Dynasty, but also proves that the practice of rebuilding the caves of past dynasties began in the late Tang Dynasty. Dunhuang grottoes have two essentially unique characteristics compared with other grottoes in China: first, statues and murals were used instead of sculptures carved out of the rocks; second, early grottoes mostly feature a herringbone style roof. For the former, the cliff rocks are loose and thus unsuitable for carving; the latter is representative of wooden structures. This idea of imitating wooden structures had been practiced from the Wei Dynasty, shortly after the earliest grottoes were dug, to the late Tang Dynasty. This basic form had been carried on by the grottoes built during the Sui and Tang Dynasties. In the document "Titles and Number of Caves and Niches for the Allocation of Lanterns on Laba Festival", domestic and foreign experts and scholars researched this in depth. The document gives a systematic recount of the general appearance of the cliff face of the Mogao Grottoes in 951 AD, the total number of caves and niches at that time, and the titles of some caves and niches. But according to Jin Weinuo's "Study of the Titles and Number of Caves and Niches for the Allocation of Lanterns on Laba Festival" [25], it is believed that the article covers the titles and number of caves and niches for the allocation of lanterns, introducing the number and conditions of the caves and niches in 1011 AD. However, in some cases, only the numbers of lanterns were recorded, which are not necessarily the same as the numbers of caves. The author believes that there are 619 caves from the "Hall of Heavenly Kings" to the "Family Yin's Temple" in the southern end, and about 56 caves from the Hall of Dusa God to the Hall of Langzi God. It can therefore be inferred that there were about 675 caves in 1011 AD. According to the records of the Mogao Grottoes, there were "more than five hundred niches" in the sixth year of Weitong (865 AD), so another 170 niches were built during the 146 years from late Tang Dynasty to the period of Dazhong Xiangfu in the Song Dynasty. However, for various historical reasons, only 492 caves have been preserved in the Mogao Grottoes, which is a far cry from the number recorded in literature.

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## Research on craftsmen and cave and temple construction;

For the study on this topic, the three books of Ma De should be recommended, including the Study on the History of Mogao Grottoes in Dunhuang, Historical Materials of Dunhuang Craftsmen, and Introduction to the Construction History of Dunhuang Grottoes<sup>[26]</sup>. The author proposes that the existing caves dating to Northern Dynasties in the Mogao Grottoes can be divided into four periods by their construction time: caves 265-251, in the south of cave 268, belong to the first phase; caves 442-431 in the northern upper level, belong to the second phase; caves 285 and 288, in the northern lower level, as well as caves 249-246 in the south and caves 487 and 488 at the bottom level, belong to the third phase; and cave 428 in the northern upper level and caves 290-305 in the lower level belong to the fourth phase. If divided by period, the first and second phases date to the Northern Wei period, the third phase dates to the Western Wei period, and the fourth phase dates to the Northern Zhou period. The second and third phases were built during the reign of the Dongyang King Yuan Rong. As the author points out in the "Foundation Laying of Mogao Grottoes during the Sixteen Kingdoms Period" [27], the murals of caves 268, 272, 275 in the Mogao Grottoes were created in the Northern Liang period, which does not mean that the three caves were also dug during the Northern Liang period. This is because, in the construction history of the Mogao grottoes, many grottoes and murals were not created continuously at one time. Usually, statues were not created until some period after the caves were dug and completed, or the murals and statues of a cave were rebuilt or recreated through several periods. Cave 275 was used as a lecture hall for education and public meetings. The murals in the three caves were arranged and painted according to their functions; small caves like 267, 269, 270 and 271 for meditation practice did not have statues; this group of caves were completed at a time during the Northern Liang period. Today, there are less than 100 caves and niches, distributed on most of the cliff faces except for caves 130-96. According to Mr. Ma De's research on the construction time of related caves, we can know that a large-scale cave like cave 156 was "completed in three years", from the time of digging to the creation of paintings and statues to the completion of all work. The time of painting and statue creation and eaves construction of cave 156 should have been completed within a few months, so it is speculated that it took about two and a half years to dig the cave.

According to the above-mentioned textual research conducted by experts, we further realize that in the history of the construction of the Mogao Grottoes, the digging of some caves and creation of their murals were not completed at one time, which is very important to our study of the grotto construction activities of the donors.

In the book the "Research on History of Buddhist Portraits and Statues in the Northern Wei Dynasty" [28], Japanese scholar Ishimoto Hinako discusses the common characteristics of about 20 stone trio statues in northern Henan, as well as the complex and diverse beliefs and shapes of local statues and folk statues during the Northern Wei Dynasty. She believes that the local statues were not created by professional Buddha statue sculptors, and it is possible that the local stone craftsmen who were also engaged in the carving of stone steles and stone portraits were also involved in the creation of the Buddhist statues. From this point of view, local or folk statues are supported not only by Buddhist beliefs, but also by Chinese local customs and beliefs and traditional culture. In particular, Sato Chimizu, who has carefully interpreted the statue inscriptions, provides us with some important information. In the article "Survey of Historical Materials about the Stone Inscriptions in North China, Starting from the Historic Materials of Statues during Northern and Southern Dynasties" [29]. Sato Chimizu pointed out that the vow text about the creation of a statue collected in the Cincinnati Art Museum contains a recount of "granting titles to the elders", which refers to the awarding of titles to the elderly, so the statue should have been created by the Shang family that had won the honor for repaying gratitude. It is believed that a board with an inscription on it was often awarded to the elderly during the North Wei Dynasty, which was not an actual official position, but may likely be a reward for the elderly. Sato Chimizu focused on the donor portraits in the Buddhist portraits and statues of China during the third year of Xiping, introducing a new viewpoint in the study of Buddhist art history. It was pointed out that the statue tablet of Wei Wenlang discovered in

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Yao County, Shaanxi Province was a statue made by the Buddhist disciple Wei Wenlang and his family. Above the donor portraits appear horse riders and ox carts, which were generally painted in the burial chambers of tombs. In fact, for lay Buddhists, whatever gods needed in real life, whether the Buddha, Lord Lao Zi, or other gods, would be put together in the same painting or statue, which can easily confuse the Buddhist world with the burial world. Sato Chimizu started from the vow texts and the names of the donors, studied the donor portraits, and studied and recounted the contents of the vow text about the statue collected in the Cincinnati Art Museum, which not only allows the readers to see the course of the author's academic exploration, but also displays a high academic nature.

# Relationships between donors, craftsmen and construction of grottoes;

On the relationships amongst donors, craftsmen and the construction of grottoes and temples, in the article of Su Yumin, "Donors, Craftsmen and Construction of Grottoes and Temples in the Western Regions" [30], it is pointed out that although the main body studies the donors, craftsmen and construction of grottoes and temples in the Western Regions, it also involves Dunhuang grottoes. Mainly based on the Turpan documents, the murals, title inscriptions, account books and tablet inscriptions in the grottoes or temples in Xinjiang, the article explores the relationships amongst donors, craftsmen and the construction of grottoes and temples, as well as the compensation of the craftsmen for building the grottoes and temples and the origins of the craftsmen. It was pointed out that from the period of Gaochang under the rule of Qu family to Xizhou period, the pagodas, temples and grottoes built in the Gaochang area were financially supported by the upper class. Of course, other than princes and ministers, donors also included ordinary people, who also believed in Buddhism and thus often became donors for temples. Sometimes, craftsmen themselves were also donors for temples.

As to the craftsmen and construction of grottoes and temples supported by local administrations in the Western Regions, this issue was reflected in the "Name List of Workers, Painters and Craftsmen in Gaochang" unearthed from the No. 153 in Astana, Turpan. Mr. Zekio Shiro conducted a special research on this topic, who recounted in the article "An Attempt to Interpret the Name List of Workers, Painters and Craftsmen in Gaochang" [31] that the name list existed in the document, which said that the existing part is the records of at least four days (from May 29 to June 2), and actually can be regarded as records of five days. The basic format of the document is composed of three parts: the date, the daily staff (the workers, painters and craftsmen), and the total number of people. In this name list, several names have been repeated, such as painters Lu Touzi, Huang Sengbao, Lian Shanxi, and Wang Chenhu. Some civil officials at lower ranks were recruited as workers to perform do labor jobs. "The workers, painters and craftsmen seemed to be artisans, or were an artisan". They were equally under the control of the government. This kind of folk technical craftsmen were different from ordinary people. They had to bring their own tools and food when they performed the labor jobs. In the article "On the Workers during the Gaochang Period under the Rule of Qu Family" [32], Zhu Lei defined the term "workers" as the commissioned workers recruited by the Gaochang regime and the workers hired by temples. In the construction of grottoes or temples, the painters were responsible for the production of all interior murals. In the artisan-painter industry, there were four ranks, namely Du-liao, Bo-shi, artisans and commercial painters, and there were masters and apprentices. Seen from the existing grottoes of different periods, the production of the murals was generally completed collectively, though one or two painters also undertook the painting task of a Buddhist grotto alone. German expeditions have ever found paintings of different specifications in the grottoes of Qiuci and Gaochang, and their specifications varied with their different uses. The discovery of these paintings not only indicates that the painters had planned the murals of temples or grottoes in advance, but also indicates that they already adopted mechanical trace-off at that time, making it possible for different painters to draw the outlines, flat-paint and render. Su Yumin believes that the title inscriptions left by painters preserved in the Western Regions were rare. A German expedition stripped large murals from the walls on both sides of cave 212 in the back mountain area of Kizil Grottoes. A line of title inscription in Qiuci script was discovered in the title column at the bottom of the story painting on the left wall. An interpretation of the line reveals its general meaning is, after these

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paintings were finished, they were colored by the painter Manibhadra from Syria [33]. In addition, the Chinese inscriptions left by painters from the Uighur period were discovered on the eastern wall of Cave 7 in the Goukou area of Kumtura. In the "Chinese Style Grottoes in Kumtura" [34], Ma Shichang believed that the inscriber should be the painter of the Jinsha Temple. The terracotta pigment he used is often used to draw the outline or lines. There are also cases of leaving an inscription near a painting after the painting was finished. Su Yumin pointed out that the early painters of Kizil grottoes were not monks, but some professional painters. As can be seen from their clothing, they belonged to the local "Thukhara people", but with an ancient Egyptian wig hairstyle. They often left their own image on the pictures [35]. Among the artisan-painters in the Central Plains, there have always been court painters, similar to literati and with a high status. For example, the early authors of paintings in Dunhuang were mainly "court painters" of the local separatist regimes, officials of the local governments, literati painters and painters as attendants. Dong Guodong said in the article "The Craftsmen of the Early Tang Dynasty Seen in the Turpan Documents" [36], the craftsmen were similar to artisans or were an artisan, but did not explain what specific work they did.

There are many debates on the adhesives of murals in Central Asia. The Dunhuang Academy collected 12 samples of pigments from Kizil for experimental analysis. According to the results, during the creation of murals, oxhide gelatine was used as the cementing material of pigments, which was the same as the cementing material used in pigments of Dunhuang murals. Su Yumin<sup>[37]</sup> believed that the digging of grottoes and construction of temples also required the following craftsmen: first, the cave diggers carving rocks on the cliff, who are also an important part of the Dunhuang craftsmen; second, the plasterers mainly responsible for building the base of murals and the wooden eaves in front of the caves during the construction of caves; third, lime workers; fourth, carpenters responsible for the construction of grotto eaves; fifth, the statue workers responsible for making statues in the grottoes; and finally, the artisan-painters or craftsmen.

There are very few records about the cave diggers in the Western Regions, but in caves 66 and 68 of Kumtura Grottoes, there are Chinese inscriptions dating to "Jianzhong" period, which were deliberately processed for inscription. In the article "Chinese Style Grottoes in Kumtura", Ma Shichang believed that the inscribers may be the craftsmen who were responsible for digging the grottoes<sup>[38]</sup>. In addition, according to the "Report on the Excavation of the Historic Site in Front of Mogao Grottoes in Dunhuang" by Pan Yushan and Ma Shichang<sup>[39]</sup>, "coarse porcelain bowls, copper ware and bone carving fragments dating to Yuan Dynasty" were discovered in the upper ruins in front of the caves, and there were burning layers of ashes such as "charcoal, earth blocks, white ash slag" on the ruins, which can prove that temples were ever built along the grottoes in front of Manjusri Cave during the Yuan Dynasty.

### The compensation and origins of craftsmen;

As for the compensation of the craftsmen for building the grottoes and temples and the origins of the craftsmen, the main cost of building the temples includes the cost of raw materials and the pay for craftsmen. In addition to the purchase of wood, pigments and other raw materials, the temples also needed to employ a large number of craftsmen and workers. As in Dunhuang S · 5448 "Dunhuang Record", it was said that "every cave costs millions of taels", which shows the huge building cost of grottoes and temples. The state did not have a special income for the temple construction, so the fund for temple construction could only be raised whenever it was needed. The state generally would not allocate any fund for temple repair and construction. In the article "The Craftsmen of the Early Tang Dynasty Seen in the Turpan Documents", Dong Guodong divided the craftsmen in Xizhou of the Tang Dynasty into two categories, the craftsmen hired by the government, and folk private craftsmen [404]. In his "Study on the Contracts of Hired Workers Unearthed in Turpan Dunhuang", Yang Jiping studied 28 hired workers contracts and another 26 employment contracts in the documents unearthed in Dunhuang, and pointed out that there was no contract for workers hired by temples for painting or repairing [41]. In his book "Historical Materials of Dunhuang Artisans", Ma De believed that the benefactors and donors had to pay

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a certain compensation to hire artisans for the building of Buddhist grottoes. However, from the perspective of craftsmen, they often regarded cave building as a good deed and thus demanded for less pay for their labor, or worked on a voluntary basis, especially so when they were building a grotto for temples or the Buddhist group. This interpretation makes some sense. In the article of "Donors, Craftsmen and the Construction of Grottoes and Temples in the Western Regions", Su Yumin believes that according to the Dunhuang documents, some craftsmen were also a monk, and most of these monks mastered the techniques for the construction and painting of grottoes and temples, which should have not been an accidental phenomenon. Craftsmen in Central Asia were floating. Craftsmen from different regions and different families may form different craftsman groups. Different craftsman groups would have their own unique techniques and styles [43]. In addition, with the in-depth research on the donors and grotto construction, some relevant findings have been published, like Wang Huimin's works "Buddhism and Grottoes Construction in Dunhuang" [44]. The second section of the second chapter of the book, "Donors, Craftsmen and Projects", has analyzed the relevant contents.

#### **CONCLUSION**

The above studies indicate that the introduction of Buddhism into the Western Regions had a profound influence on the politics, economy, culture and social customs of the Western Regions. Frequent Buddhist activities and building of grottoes and temples required a lot of manpower and material resources; unlike the Mogao Grottoes in Dunhuang, the Buddhist sites in the Western Regions have not left many records of craftsmen digging the grottoes and building the temples; however, from the murals, title inscriptions, account books, tablet inscriptions and other unearthed documents in grottoes or temples, we seem to see a large number of craftsmen busily digging grottoes and building temples. Although the relevant scholars have analyzed the craftsmen and grotto construction according to title inscriptions, which allows the readers to form a new understanding of the adhesives of the murals in Central Asia, the compensation of the craftsmen for building the grottoes and temples and the origins of the craftsmen, and realize the significance of the research on the craftsmen and the construction projects of Dunhuang and the Western Regions, which have been neglected in the past.

How to systematically study the relationships amongst donors, craftsmen and grotto and temple construction is the toughest problem we are faced with, since the craftsmen and grotto construction method varied in different periods, and it is difficult to determine the construction situation of each period. Earlier scholars, such as Chen Mingda, Jin Weinuo, and Ma De, with their strong academic foundation, have joined the research of this area and have analyzed related issues according to different periods, achieving fruitful results. However, there is still a relative lack of systematic research findings. Research in this area is still weak, and there are still many issues to study, which should receive high attention from the international academic circle of Dunhuang studies.

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#### **References:**

- [1] Fan Jinshi.(2004).For Permanent Existence of Dunhuang--An Exploration Journey in the Protection of Dunhuang Grottoes (J). Dunhuang Research,(3): 5-9.
- Duan Wenjie. (1995). Donor Portraits and Grottoes (J). Dunhuang Research, (3):113-116.
- [3] Xiang Yifeng.(1997)A Preliminary Exploration on Donors for Buddhist Grottoes (J). Dunhuang Research,(1):96-100.
- [4] Xiang Yifeng.(1997). A Preliminary Exploration on Donors for Buddhist Grottoes (J). Dunhuang Research, (1): 96-100.
- [5] Duan Wenjie.(1995).Donor Portraits and Grottoes (J). Dunhuang Research,(3):113-116.
- [6] Xiang Yifeng. (1997). A Preliminary Exploration on Donors for Buddhist Grottoes (J). Dunhuang Research, (1): 96-100.
- [7] Xiang Yifeng. (1997). A Preliminary Exploration on Donors for Buddhist Grottoes (J). Dunhuang Research, (1): 96-100.
- Dunhuang Academy. (1986). Title Inscriptions about Donors of Mogao Grottoes in Dunhuang (M). Beijing: Cultural Relics Publishing House, P:85.
- [9] Zhang Xiantang.(2008). The Evolution of Donor Portraits in Mogao Grottoes Based on the Study of Buddhism History (J). Journal of Dunhuang Studies, (4): 98.
- [10] Zhang Xiantang.(2007).Statue Creation and Buddhism Supporting Activities of Donors in Ancient Dunhuang (J). Dunhuang Research,(4): 64-71.
- [11] Ma De. (1996).Research on History of Mogao Grottoes in Dunhuang (M). Lanzhou: Gansu Education Publishing House,P:327.
- [12] Sha Wutian.(2007).Donor Portraits and Secular Buddhism in Dunhuang during Tang and Song Dynasties (J). Dunhuang Research, (4):72-79.
- [13] Sha Wutian..(2007).Donor Portraits and Secular Buddhism in Dunhuang during Tang and Song Dynasties (J). Dunhuang Research,(4): 72-79.
- Wang Guowei.(1959).Postscript to the Donor Portrait of Ksitigarbha Bodhisattva and Prince Yutian (M), Postscript to the Portrait of Avalokitesvara Bodhisattva Painted by Lady Cao (M)// Collection of Guantang, Vol. 20, Beijing: Zhonghua Book Company,P:999-1005.
- [15] Li Zhengyu.(1988).Brief Records about the Ancient Temples in Dunhuang (J). Journal of Dunhuang Studies, (Z1): 70-85.
- [16] Zheng Binglin.(1992).Interpretations of the Stone Tablets, Inscriptions and Verses in Dunhuang (M). Lanzhou: Gansu Education Publishing House.
- [17] Huang Zheng, Wu Wei. (1995). Collection of Vow Texts in Dunhuang (M). Changsha: Yuelu Press.
- [18] (Japan) Doi Yoshiwa.(1992).Donors of Mogao Grottoes in Dunhuang during the 9th and 10th Centuries--Analysis of the Quantity of 'Title Inscriptions about Donors of Mogao Grottoes in Dunhuang' Compiled by Dunhuang Academy (M)// Cities and Rural Areas of China, Tokyo Ancient Academy,P:425-446.(1999).Title Inscriptions about Donor Portraits in Mogao Grottoes in Dunhuang (M)// Nations and Regions Related with the History of East Asia, P:337-373.
- [19] Xu Ziqiang.(2001).Research on Title Inscriptions in Mogao Grottoes in Dunhuang (C)//Collection of Dunhuang Literature--Collection of Papers of the International Academic Seminar on the 100<sup>th</sup> Anniversary of the Discovery of Dunhuang Sutra Cave, P:321-347.
- [20] Wang Huimin.(1994).Reading Notes on Title Inscriptions about Donors of Mogao Grottoes (J). Literature,(3): 269-347.
- [21] Ning Qiang.(2000).Research on the Donors in Three Grottoes of Dunhuang Built in Northern Liang and Related Issues (M)// Arts and Archeology between Han and Tang Dynasties, Cultural Relics Publishing House, ; (1988)."Famous Paintings of All Dynasties" and Early Dunhuang Murals--Relationship between Paintings of Southern Dynasties and Early Dunhuang Murals (J). Dunhuang Research, (4):51-64.
- [22] Zhang Xiantang.(2007).Statue Creation and Buddhism Supporting Activities among Ancient Donors in Dunhuang (J).Dunhuang Research, (4): 64-71.
- [23] (France) Michel Soymie.(2001).Donors in the Dunhuang Murals (M)// Far East Asia Series, Vol. 11 "Commemoration of the Establishment of École française d'Extrême-Orient (EFEO) and 100<sup>th</sup> Anniversary of New Study of Tunhuangology"; Yu Xin. New Progress of Dunhuang Study in France-- (Far East Asia Series) "New Study of Tunhuangology" Special Issue Evaluation (J). Journal of Dunhuang Studies, (1): 103-111.
- [24] Chen Mingda.(1955). An Investigation Report on Dunhuang Grottoes (J). Heritage Reference, (2):39-70.
- [25] Jin Weinuo.(1959).Study of the Titles and Number of Caves and Niches for the Allocation of Lanterns on Laba Festival (J). Cultural Relics,(5):50-61.
- [26] Ma De.( 1996). Study on History of Mogao Grottoes in Dunhuang (M). Lanzhou: Gansu Education Publishing House. Ma De.(1997). Historical Materials of Dunhuang Craftsmen (M). Lanzhou: Gansu People's Publishing House,; Ma De.(2003). Introduction to the Construction History of Dunhuang Grottoes. Taiwan SWF Publishing Co, Ltd.

Print ISSN: 20535783(Print)

Online ISSN: 20535791(online)

- [27] Ma De.(1996).Foundation Laying of Mogao Grottoes during the Sixteen Kingdoms Period (M)// Study on History of Mogao Grottoes in Dunhuang. Lanzhou: Gansu Education Publishing House,P:52-61.
- <sup>[28]</sup> (Japan) Author Ishimoto Hinako, translated by Shinohara Tensei.(2012).Research on History of Buddhist Portraits and Statues in the Northern Wei Dynasty (M). Beijing: Cultural Relics Publishing House.
- [29] (Japan) Sato Chimizu.(2004).Survey of Historical Materials about the Stone Inscriptions in North China, Starting from the Historic Materials of Statues during Northern and Southern Dynasties (J). Study of Tang Dynasty History (Japan),(7):177-203.
- [30] Su Yumin.(2007).Donors, Craftsmen and Construction of Grottoes and Temples in the Western Regions (J). The Western Regions Studies, (4):74-83.
- [31] Zekio Shiro.(1994). An Attempt to Interpret the Name List of Workers, Painters and Craftsmen in Gaochang (M)// Collection of History Papers of Professor Oda, Collection Compiled by the History Society of Ryukoku University, P:1-17.
- [32] Zhu Lei.(1983).On the Workers during the Gaochang Period under the Rule of Qu Family (M)// A Preliminary Exploration on the Documents Unearthed in Turpan, Dunhuang. Wuhan University Press, P:32-65.
- [33] Su Yumin.(2007).Donors, Craftsmen and Grotto Construction in the Western Regions (J). The Western Regions Studies, (4):74-83.
- [34] Ma Shichang.(1992). Chinese Style Grottoes in Kumtura (M)// Chinese Grottoes in Kumtura. Cultural Relics Publishing House.
- [35] Su Yumin.(2007).Donors, Craftsmen and Grotto Construction in the Western Regions (J). The Western Regions Studies,(4): 74-83
- [36] Dong Guodong.(1990). The Craftsmen of the Early Tang Dynasty Seen in the Turpan Documents (M)// Second Part of the Preliminary Exploration on Documents Unearthed in Turpan, Dunhuang. Wuhan University Press,P:305-334.
- [37] Su Yumin.(2007).Donors, Craftsmen and Grotto Construction in the Western Regions (J). The Western Regions Studies,(4): 74-83.
- [38] Ma Shichang.(1992). Chinese Style Grottoes in Kumtura (M)// Chinese Grottoes in Kumtura. Cultural Relics Publishing House.
- [39] Pan Yushan, Ma Shichang.(1978).Report on the Excavation of the Historic Site in Front of Mogao Grottoes in Dunhuang (M).Beijing:Cultural Relics Publishing House.
- [40] Dong Guodong.(1990). The Craftsmen of the Early Tang Dynasty Seen in the Turpan Documents (M)// Second Part of the Preliminary Exploration on Documents Unearthed in Turpan, Dunhuang. Wuhan University Press, P:305-334.
- [41] Yang Jiping.(1997).Study on the Contracts of Hired Workers Unearthed in Turpan Dunhuang (M)// Studies of Turpan, Dunhuang (2). Peking University Press,P: 215-230.
- [42] Ma De. (1997). Historical Materials of Dunhuang Craftsmen (M). Lanzhou: Gansu People's Publishing House, P:21.
- [43] Su Yumin.(2007)Donors, Craftsmen and Construction of Grottoes and Temples in the Western Regions (J). The Western Regions Studies,(4):74-83.
- [44] Wang Huimin. (2013). Buddhism and Grotto Construction in Dunhuang (M). Lanzhou: Gansu People's Publishing House.