

Research on the Circulation and Evolution of Fonts in Dunhuang Manuscripts from the Perspective of Calligraphy Art

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ABSTRACT

[Background] In 1900, the Library Cave in Dunhuang's Mogao Caves was discovered. Over 50,000 calligraphy works, stele rubbings, etc. were revealed. Dunhuang manuscripts, along with oracle - bone inscriptions, are among the "Four Major Academic Discoveries" in modern China. Spanning 700 years, these documents have a complex historical and cultural background.

[Objective] From the perspective of the history of calligraphy, to study the evolution of calligraphy styles, the inheritance of styles, as well as the changes, fusions of calligraphy styles and the evolution of brushwork techniques during the period from the end of the Jin Dynasty to the early Song Dynasty.

[Method] Analyze numerous Dunhuang - unearthed documents, like Buddhist scriptures, letter - writing models, Wang Xizhi copies, Tang stele rubbings, and calligraphy theory fragments.

[Results] It is found that Buddhist scriptures and letter - writing models account for a large proportion in Dunhuang documents, showing a complete evolution track of the style of copying Buddhist scriptures. Dunhuang manuscripts are complete in all calligraphy styles, diverse in style and various in form.

[Conclusion] Dunhuang documents are invaluable for related research. Their manuscripts feature a unique, natural aesthetic. They form an independent, region - characteristic system, closely linked to Central Plains and Jiangnan calligraphy styles, and are essential to ancient Chinese calligraphy history.

Keywords: Dunhuang Manuscripts; The Evolution of Calligraphy; History of Calligraphy; Aesthetic Taste

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1 Introduction

In 1900, while clearing the accumulated sand in Cave 16 of the Mogao Grottoes, Taoist Wang Yuanlu accidentally discovered a hidden chamber filled with a large number of ancient manuscripts and cultural relics, which is the world-shocking Dunhuang Manuscripts. The Dunhuang Manuscripts have an extremely long time span, dating back to the 4th century and extending all the way to the 15th day of the 7th month of the 5th year of Xianping in the early Northern Song Dynasty. It spans a full seven centuries. During this period, there are hardly any blank periods of more than ten years, and it can almost be regarded as an uninterrupted process. This period happens to be a crucial stage in the development of Chinese characters in China, that is, the stage when Chinese characters transform and evolve from official script to regular script until it is finalized.

Nearly 60,000 Chinese ink manuscripts unearthed in Dunhuang have become the most direct historical witnesses of the development of calligraphy. They are like keys that unlock the mysteries of the evolution of ancient calligraphy art for us, revealing the style and development context of calligraphy art at that time. With the continuous deepening of Dunhuang-related research and the extensive publication of materials housed in countries such as Britain, France, Japan, and Russia, Dunhuangology has witnessed rapid development in the 20th century and has become a prominent discipline in the global academic community. From the perspectives of calligraphy history and calligraphy philology, the relevant content has become an important part of calligraphy studies, both in terms of academic theoretical exploration and textual research, and in terms of providing reference and inspiration for creative practices.

This article starts from the perspective of calligraphy studies. Based on the basic research methods of philology, history, and aesthetics, it conducts induction, sorting, analysis, and research on a series of related issues. These issues include the dating and classification of the manuscripts unearthed from the Dunhuang Library Cave between the 4th and 11th centuries, the corresponding evolution of brushwork and style classification, the influence and interaction between Dunhuang manuscripts and the traditional "official history" of calligraphy, the promoting effect of changes in brush, ink, and paper materials on calligraphy, as well as calligraphy history, calligraphy theories, and calligraphy education. The aim is to initially construct a relatively complete academic system in the form of calligraphy for the topic of "Dunhuang calligraphy" in terms of theoretical structure, and to make some concise and necessary supplements to the history of calligraphy from the late Jin Dynasty and the Southern and Northern Dynasties to the early Song Dynasty.

2 Overview of Dunhuang Manuscripts

2.1 Discovery and Loss of Dunhuang Manuscripts

In the 26th year of the Guangxu reign of the Qing Dynasty, Wang Yuanlu accidentally discovered the Library Cave, namely Cave 17, in the corridor of Cave 16 of the Mogao Grottoes. Subsequently, Western explorers such as Aurel Stein, Paul Pelliot, the Otani Expedition Team, and Sergei Fedorovich Oldenburg came one after another, and a large number of precious manuscripts were bundled up and taken away. In 1909, the remaining manuscripts were transported to the provincial capital and then sent to Beijing by the Ministry of Education of the Qing government, and were collected in the Imperial Library of Peking, which was the predecessor of the National Library of China.

Currently, the National Library of China houses 16,000 pieces; the British Library has 13,677 pieces; the National Library of France possesses more than 7,000 pieces; and the St. Petersburg Branch of the Institute of Oriental Studies of the Russian Academy of Sciences holds more than 18,000 pieces. In addition, the Dunhuang Academy, the National Museum of China, the Palace Museum, the Gansu Provincial Museum, the Dunhuang Museum, the Library of Peking University, the Shanghai Museum, the Shanghai Library, the Tianjin Art Museum, the Tianjin History Museum, the Chongqing Museum, Northwest Normal University, etc, the National Central Library in Taipei, the Hong Kong Museum of Art, Ryukoku University, Otani University, Tenri University, the Tokyo National Museum, the Royal Library of Copenhagen and other institutions also have collections. The total number is over 50,000 pieces. The earliest manuscript discovered so far is the Mahāparinirvāṇa Sūtra copied on the 7th day of the 2nd month of the 2nd year of Yongxing in the Western Jin Dynasty, and the latest one is the Mahāprajñāpāramitā Sūtra from the 5th year of Xianping in the Great Song Dynasty. The loss of the Dunhuang Manuscripts is a great disaster in the history of Chinese culture. It has made us lose countless precious cultural heritages and also made us deeply aware of the difficulties of cultural protection when the country is weak.

From the discovery to the protection of the Library Cave in Dunhuang, in just 30 years, about more than 50,000 pieces of Dunhuang documents (Buddhist scriptures account for 85%, and the four categories of classics, histories, masters' works, anthologies, as well as secular documents and letters account for 15%) were found (Wo, 1994). More than half of them were transported to major museums abroad. The specific collection situation is shown in the following table:

Table 1 Dunhuang Manuscripts Collected in Domestic Museums

Institutions with Collections Abroad	Quantity
St. Petersburg Branch of the Institute of Oriental Studies of the Russian Academy of Sciences	More than 18,000 pieces
The British Library	More than 14,000 pieces
The National Library of France	More than 7,000 pieces
Tokyo Calligraphy Museum	164 pieces
Mitsui Gen'eemon (Private Collection)	108 pieces
Otani University Library	34 pieces
Kiyono Kenji (Private Collection)	19 pieces
Yamamoto Teijirō (Private Collection)	17 pieces
Ryukoku University Library	7 pieces

Table 2 Dunhuang Manuscripts Collected in Domestic Museums

Institutions with Collections in China	Quantity	Institutions with Collections in China	Quantity
National Library of China	> 16,000 pieces	Nanjing Library	23 pieces
Dunhuang Academy	383 pieces	Zhejiang Library	20 pieces
Tianjin Museum	350 pieces	Northwest Normal University	19 pieces

Library of Peking University	286 pieces	Jiuquan Museum	18 pieces
Shanghai Library	187 pieces	Chongqing Museum	13 pieces
Tianjin Library	177 pieces	Dingxi County Museum	10 pieces
Zhejiang Museum	176 pieces	Lvshun Museum in Dalian	9 pieces
National Library	156 pieces	Yongdeng County Museum	8 pieces
Gansu Provincial Museum	138 pieces	Hangzhou Cultural Relics Institute	4 pieces
Dunhuang Museum	81 pieces	Gansu College of Traditional Chinese Medicine	3 pieces
Shanghai Museum	80 pieces	Gaotai County Museum	3 pieces
Gansu Provincial Library	32 pieces	Zhangye Museum	1 piece
Hubei Provincial Museum	31 pieces	Lingyin Temple in Hangzhou	1 piece
Tianjin Cultural Relics Company	30 pieces		

2.2 Content and Types of Dunhuang Manuscripts

As ancient manuscripts and printed books from the 4th to the 11th century AD, the Dunhuang Manuscripts cover religious classics, official and private documents, Chinese Four Branches of Literature books, non-Chinese documents, etc. They are precious materials for multi-disciplinary research in history, archaeology, religious studies, anthropology, sociology, linguistics, literary history, art history, history of science and technology, ethnic history, etc. in China, Central Asia, East Asia, and South Asia during the Middle Ages (Jiang, 1956), possessing incalculable cultural relic value and documentary research value.

Religious classics are an important part of the Dunhuang Manuscripts, accounting for approximately 80% of the total. Among them, Buddhist scriptures are the most numerous, including sūtras, vinayas, abhidharmas, commentaries, hymns, dhāraṇīs, vows, invocation texts, confession texts, catalogs of Buddhist canons, etc. At the same time, some scriptures that have been lost in the Central Plains of China have also been discovered, such as the doctrinal scriptures of the Sānjīnjiào (Three Stages Sect) that were banned several times during the Sui and Tang dynasties, as well as a number of suspected apocryphal scriptures. The discovery of these lost scriptures has greatly enriched the materials for Buddhist research and provided crucial clues for exploring the spread and evolution of Buddhism in China. In addition to Buddhist classics, scriptures of other religions such as Taoism, Manichaeism, and Nestorian Christianity have also been found. The presence of these different religious classics reflects the diverse and mutually inclusive cultural atmosphere of religious beliefs in Dunhuang at that time.

Although secular classics are relatively fewer in quantity, accounting for only about 20% of the total, their academic value is immeasurable. The content includes traditional books of the Four Branches of Literature (Confucian Classics, Histories, Masters' Works, and Anthologies), as well as a large number of local documents. It covers almost all aspects, such as mathematics, geography, history, politics, trade, philosophy, military affairs, ethnic groups, and folk customs. Among the literary works, there are not only copies and lost works of renowned literati from the Central Plains, such as Wei Zhuang's "Song of the Lady of Qin" and more than 300 poems by Wang Fanzhi, but also local secular literary works that have not been passed down, such as poems, ci-poetry, fu-prose, transformation texts, preaching scriptures, yāzuòwén (a kind of introductory text before chanting scriptures), folk songs, YinYuan (Buddhist stories), ér láng wěi (a

kind of folk literature), etc. These works vividly showcase the style of folk literature and the spiritual world of the common people at that time.

In terms of types, the formats of the Dunhuang Manuscripts mainly fall into three categories. The first is the long scroll, which is the most common form. Some individual scrolls have a wooden axle attached to the end. They are composed of pieces of paper with roughly equal height and width connected together. The longest ones, "Commentary on the Diamond Sūtra" and "Exegesis of the Lotus Sūtra", both reach ninety-nine feet in length. The form of the long scroll is convenient for writing long texts and is commonly seen in religious classics and some longer secular documents. The second is the butterfly-bound book. These documents are written on both sides. A paste is applied along the fold line in the middle, and then the papers are pasted together one by one to form a book, which can be square or rectangular. The butterfly-bound book is easy to flip through and is suitable for some materials that need to be frequently consulted, such as reference books and encyclopedias. The third is the loose leaf. They are individual sheets, mostly consisting of patterns, letters, receipts, and contracts. Although these loose leaf documents are short in length, they can reflect the details of social life at that time.

3 The Periodization of the Calligraphic Fonts in Dunhuang Manuscripts

3.1 The Period of the Sixteen Kingdoms (304 - 442)

During the period of the Sixteen Kingdoms, the regime changes in the Dunhuang region were frequent. The Zhang clan of the Former Liang (Han ethnicity, 313 - 376 AD), the Fu clan of the Former Qin (Di ethnicity, 376 - 387 AD), the Lü clan of the Later Liang (Di ethnicity, 386 - 403 AD), the Li clan of the Western Liang (Han ethnicity, 400 - 420 AD), and the Juqu clan of the Northern Liang (Xiongnu ethnicity, 401 - 439 AD) successively ruled this area. It was not until 442 AD, three years after the Northern Wei Dynasty eliminated the Northern Liang and occupied Dunhuang that the region returned to unity.

In the early stage, under the governance of Zhang Gui, the eight commanderies of Liangzhou (including Jincheng, Xiping, Wuwei, etc.) became a place of refuge in the troubled times. The local government built water conservancy projects and developed agriculture, attracting numerous refugees from both home and abroad. Many literati and scholars also came here to avoid the chaos, making Liangzhou a gathering place for talents and a prosperous cultural center, earning the reputation of "scholars being on a par with those in the Central Plains." These literati taught and passed on knowledge in the Hexi region, preserving classical works and academic theories that were lost in the Central Plains, which had a profound impact on the development of later cultures.

During the period of the Sixteen Kingdoms, Dunhuang showed a unique vitality due to the influx of a large number of immigrants. At that time, the Central Plains were constantly plagued by wars and in a state of desolation, while Dunhuang achieved rapid development and remarkable progress in both economy and culture compared to places like Hebei and Shandong that were repeatedly ravaged by wars. The local government attached great importance to education and the selection of talents, and the social situation was basically stable. However, in the turbulent environment, people's hearts were always shrouded in anxiety. The sorrow of leaving their hometowns and the shadow of war lingered. Many people pinned their hopes on the gods to eliminate disasters and bestow blessings, which led to the rapid spread of Buddhism and provided it with a broad mass base.

In the first year of Jianchu of the Western Liang (405 AD), in order to resist the invasion of the Northern Liang, the Western Liang moved its capital to Jiuquan and relocated a large number of people, which became a turning point for the short-term decline of Dunhuang. In 420 AD, the Northern Liang eliminated the Western Liang, and the following year, Juqu Mengxun massacred the city. In the fifth year of Taiyan (439 AD), after the Northern Wei Dynasty eliminated the Northern Liang, it continued to march westward to attack Juqu Wuwei. In 442 AD, Juqu Wuwei abandoned and fled from Dunhuang. In the same year, Li Bao occupied Dunhuang. Through measures such as repairing the city walls, appeasing the people, and submitting to the Northern Wei Dynasty, Dunhuang gradually recovered from its decline.

During the 135 years from 304 AD when Liu Yuan, a Xiongnu, established the Han Dynasty to 439 AD when the Northern Liang perished, the focus of calligraphy history research was not on this stage. At that time, people's attention was mostly focused on the calligraphy of the Southern Dynasties centered around Wang Xizhi and his son Wang Xianzhi. However, for the history of Dunhuang calligraphy, this period was the starting point, and it is of great significance to examine and explore the calligraphic forms of this period. Chen Yinke once pointed out that although the prefectures of Qin and Liang were located in the northwest, in terms of culture, they inherited the academic styles of the Han, Wei, and Western Jin dynasties and laid the foundation for the systems of the later Wei, Qi, Sui, and Tang dynasties. In the cultural system of the Northern Dynasties, besides being influenced by the culture of the Jiangdong region, there was also the inheritance of the Hexi culture of the Han, Wei, and Western Jin dynasties.

Taking the inscription on the Buddhist scripture of the Former Liang period, *The Sutra of Parables*, housed in the Tokyo Calligraphy Museum in Japan as an example, most scholars believe that it records the event in the third year of Shengping of the Former Liang (359 AD) when Song Hun exterminated the Zhang Guan clan. The calligraphy of this inscription uses the brush to enter the paper with a sharp tip, presses down abruptly at the end and raises the press down stroke (diagonal downward stroke), with the strokes being vigorous and sharp. The dots and strokes mostly take the shape of a wedge or a triangle, with the body posture being horizontal and vertical, and the foot of the press down

stroke being thick and plump, showing the characteristics of official script and being in a transitional state between official script and regular script. This style inherits the *The Compendium of the Essential Teachings of All Buddhas* unearthed in Turpan in the sixth year of Yuankang of the Western Jin Dynasty (296 AD), and both of them were written in Jiuquan, representing the typical calligraphic style of the Hexi region from the 3rd to the 4th century, which can showcase the early style of regular script. The scrolls such as *The Dharma Verses of the Daoxing Section* housed in the Gansu Provincial Museum also have a similar style.

However, when compared with the incomplete copy of *The Li Bai Documents* unearthed in Loulan of the same period, the pen momentum of the secular daily handwritten style is different from that of the Buddhist scripture, and there are differences in the use of basic strokes. Moreover, in some texts, the difference between the "classical style of the main text" and the "daily handwritten style" can also be seen in both the main text of the copied Buddhist scriptures and the inscriptions at the end. The degeneration speed of official script in formal written works such as official documents and Buddhist scriptures is slower than that in secular documents.

In terms of brushwork techniques, from *The Sutra of Parables* to *The Bhikṣu Vinaya of the Ten Recitations* and then to *The Household Register of Gaochangli*, a clear development trajectory can be seen. The works in the "official script-regular script style" are typical of this period, and the size of one line of the text is similar to that of the official script Han Dynasty bamboo slips, reflecting the state of writing from

bamboo slips to paper in the early stage. Moreover, the process of the official script's transformation in this period was not a straight line but a slow and gradual change. This characteristic is not only reflected in the documents from the Library Cave but also in the cultural relics unearthed in places like Turpan and Loulan.

The period of the Five Liang dynasties was less recorded in traditional calligraphy history. In the past, historians mostly focused on Wang Xizhi. It was not until the end of the 18th century when Ruan Yuan voiced his views that the calligraphy of the Northern Dynasties came into the research scope. The unearthed ink documents in Dunhuang provide a new opportunity for the study of the crucial transitional period between official script and regular script. Although Chinese characters basically completed the transformation from seal script to official script in the middle and late Western Han Dynasty, the evolution continued. The calligraphic style from the 4th to the 5th century was unstable. From a regional perspective, it is known as the "Northern Liang style", and from the perspective of font, it can be defined as the period of the "official script-regular script style".

3.2 The Period of the Northern Wei and Western Wei Dynasties (442 - 557)

In 439, the Northern Wei Dynasty defeated the Northern Liang Dynasty in one fell swoop. Three years later, Juqu Wuwei withdrew from Dunhuang. Since then, Dunhuang was officially incorporated into the ruling territory of the Northern Wei Dynasty, and the north of China achieved unification. To firmly control the former territory of the Northern Liang, the Northern Wei established military garrisons in Liangzhou and Dunhuang in the Hexi region, respectively, to govern military units such as garrisons and troops. After that, the Northern Wei achieved continuous military victories, successfully conquering Western Regions countries like Shanshan, Yanqi, and Qiuci, thus unblocking the transportation routes to the Western Regions. For a time, envoys and Hu merchants from numerous countries and cities, stretching from beyond the distant Pamirs to the Roman Empire (Daqin), flocked to Dunhuang in an endless stream. As a result, Dunhuang became an extremely important strategic base for the Northern Wei in the northwestern region. However, the Rouran in the west frequently launched incursions, keeping the situation in Dunhuang in a state of long-term turbulence. In 474, the Northern Wei court repeatedly discussed whether to abandon Dunhuang and even considered relocating the residents of Dunhuang to Liangzhou. It was not until the Gaoche gradually rose to power and joined forces with the Northern Wei to defeat the Rouran that Dunhuang finally regained long-awaited stability. During this period, however, Dunhuang's cultural undertakings, especially the development of Buddhism, suffered a severe blow. On the one hand, after the Northern Wei destroyed the Northern Liang, it relocated the Juqu clan and a large number of officials and common people eastward, which had a huge impact on the local economy and culture. On the other hand, Emperor Taiwu of the Northern Wei highly revered Taoism and launched a large-scale campaign to suppress Buddhism. Buddhist statues were damaged, and Buddhist scriptures were burned, pushing the development of Buddhism into a trough. It was not until Emperor Wen emperor ascended the throne that Buddhism gradually recovered. Therefore, in the early stage of the Northern Wei's rule, the development of the Mogao Grottoes in Dunhuang was almost at a standstill.

In 494, Emperor Xiaowen of the Northern Wei made the momentous decision to move the capital to Luoyang. He also took three thousand monks with him and carried out large-scale construction of the Longmen Grottoes. These series of actions left the Dunhuang and Jiuquan regions increasingly empty, and cultural activities such as grotto construction further declined. At the end of the Northern Wei Dynasty, in 524, the Six Garrison Towns Uprising broke out. Emperor Xiaoming of the Northern Wei immediately issued

an edict changing the "garrison" to "prefecture". Since Dunhuang Garrison was abundant in melons, it was renamed Guazhou. Thereafter, the situation remained turbulent until Yuan Rong, a devout Buddhist believer, took the position of the governor of Guazhou. From 528 to 534, Yuan Rong vigorously promoted Buddhist affairs and dedicated himself to revitalizing the local culture. He not only actively organized people to renovate the grottoes but also launched large-scale activities of copying scriptures and creating Buddhist collections, hoping to pray for good fortune and eliminate disasters. Thanks to his efforts, Dunhuang's economy and culture recovered rapidly, and the activities of copying scriptures and creating collections reached an unprecedented level of prosperity.

At the end of the Northern Wei Dynasty, two powerful military groups led by Gao Huan and Yuwen Tai rose to prominence and split. They controlled areas such as Luoyang and Chang'an respectively, and the Northern Wei Dynasty was thus divided into the Eastern Wei and Western Wei dynasties. Dunhuang belonged to the Western Wei. The Yuwen family originally consisted of middle and lower-ranking military officers who were excluded from the privileged aristocratic class. However, they gradually seized the highest power of the state through their own military might and remarkable military achievements, forming a new aristocratic force. When formulating policies, they were not constrained by the old systems, had a strong sense of innovation in ideology, and their style of conduct was bold and unrestrained. During the long-term struggle with the Eastern Wei and later the Northern Qi dynasties, the Yuwen family gradually gained the upper hand and finally succeeded in reunifying the north. During this period, social productivity further developed, presenting a prosperous scene. Under the rule of the Western Wei, Dunhuang's connection with the inland areas became increasingly close. The cultural thinking and artistic styles of the Central Plains and southern regions had a significant influence on Dunhuang, and the trend of cultural integration between the north and the south began to gradually emerge.

In the field of calligraphy, the style of copying Buddhist scriptures in the Northern Wei Dynasty made great progress compared with that in the period of the Sixteen Kingdoms. Calligraphy techniques became more mature, the speed of script evolution significantly accelerated, and the traces of the transformation from official script to other scripts were clearly visible. At the same time, while the calligraphy styles showed diversity, they also gradually developed towards standardization and unity. In the early 520s, an official institution for copying Buddhist scriptures led by Linghu Chongzhe was established in Dunhuang. There is a batch of Buddhist scripture scrolls copied by the official scripture-copying scribes of Dunhuang Garrison from 511 to 514. These scrolls are highly consistent in many aspects such as format size, paper material, brushwork style, inscriptions at the end of the scrolls, and format specifications, which can be regarded as the standard model of the Northern Wei's official scripture copying. This also marked that the activity of copying scriptures officially entered the stage of "professionalization" and "industrialization". From 530 to 533, Yuan Rong, the governor of Guazhou, funded the copying of hundreds of scripture scrolls. Compared with the scrolls copied under the organization of the Linghu family more than a decade ago, the technical level of the copying team was higher, and the overall performance was more uniform. In addition, in the late 5th century, the Buddhist scriptures copied by the scribing institutions in the Central Plains also flowed into Dunhuang. For example, *Abhidharmahridaya-sastra*, and this external factor likely played a positive role in promoting the development of Buddhist scripture copying in Dunhuang.

At this time, regular script had become relatively perfect, delicate, and mature in brushwork, and the rules of its framework structure were also relatively stable. The techniques, formats, and the charm of calligraphy in the Southern Dynasties were fully revealed in it. In the collections of many explorers such as Aurel Stein, Paul Pelliot, and the Otani Expedition Team, there were cases where the calligraphy, although

originating from this place, clearly showed the style of the Southern Dynasties. The evidence of this kind of interaction and exchange between the north and the south, in turn, confirms a fact: as the last form in the history of script development, the development speed of calligraphy in the South was ahead of that in the North. The regular script in the Southern Dynasties matured significantly earlier than that in the Northern Dynasties and continuously promoted the improvement of calligraphy techniques in remote areas such as the Northwest. The Seventh Volume of the *Treatise on the Ten Abodes* is a typical representative influenced by this trend. It clearly incorporates new elements of the Southern Dynasties. Especially in details such as horizontal folds and hooked strokes, it still retains the techniques of the Hexi and Northern Liang styles.

The Western Wei Dynasty was relatively short-lived. The styles of various types of manuscripts basically continued the momentum of the Northern Wei Dynasty and inherited the mature and stable writing mode since the middle period of the Northern Wei Dynasty. Works in the style of "slanting strokes and tightly-knit structures" dominated. Or it can be said that this stage can be regarded as an extension of the calligraphy style of the Northern Wei Dynasty. Overall, in the Dunhuang documents of the Northern Wei and Western Wei dynasties, the proficiency of brushwork was further enhanced. In terms of font structure, they more prominently reflected a characteristic of publicity and strength, which was extremely similar to the mechanical construction method of character composition in the traditional Northern Stele calligraphy.

3.3 The Period from the Northern Zhou Dynasty to the Sui Dynasty (557 - 617)

In 557, Yuwen Jue, the third son of Yuwen Tai, abolished the Western Wei regime, declared himself emperor, and established the Northern Zhou Dynasty, forming a confrontational situation with the Northern Qi Dynasty. Later, Yuwen Yong, the fourth son of Yuwen Tai, who was Emperor Wu of Zhou, took power, and the development of the Northern Zhou Dynasty accelerated. In 577, the Northern Zhou Dynasty eliminated the Northern Qi Dynasty, unified the north, and then captured the Huainan region. Emperor Wu of Zhou harbored the grand ambition of "pacifying the Turks and unifying the south of the Yangtze River, and ensuring the unification of the whole country within one or two years." However, in 578, he suddenly passed away due to illness. Although his great ambition remained unfulfilled, the basic pattern of national unification had been initially formed. During this period, in order to strengthen the national power, Emperor Wu of Zhou issued an edict in the third year of Jiande (574) to abolish Buddhism and its teachings, confiscated the temples, lands, and other assets of the Buddhist landlords within the ruling area, and registered many Buddhist monks as equal-field households.

In terms of calligraphy, the official script elements in various documents of the Northern Zhou Dynasty completely disappeared, and the process of transformation into regular script was further accelerated, making it an important stage before the finalization and maturity of regular script in the Sui and Tang dynasties. Taking The Eighteenth Volume of the *Mahāparinirvāṇa Sūtra* as an example, the inscription at the end of the volume indicates that it was written in the first year of Baoding (561). The regular script of this manuscript, while retaining the morphological and qualitative characteristics of the Northern Wei and Western Wei dynasties, has a brushing technique of pressing that is closer to pure regular script, and also removes the techniques such as the wavy tail strokes and flipping strokes of official script. In terms of the font shape, although there is still a horizontal tendency, the handling of density and the center of gravity is no longer in the way of official script, and the overall style is very close to the trendy regular script style of the Southern

Dynasties. This is even more obvious in The Eleventh Volume of the Mahāparinirvāṇa Sūtra, which was written four years later, and The First Volume of the Sūtra of the Origin of Life in the eighth year of Taijian (576). The brushwork is rigorous, the structure is neat, and it is close to the style of horizontal strokes and wide structure, with very little difference from the regular script of the Sui Dynasty.

In 581 AD, Yang Jian, an imperial relative of the Northern Zhou Dynasty, deposed the Northern Zhou Dynasty and established the Sui Dynasty. In 589, the Sui Dynasty eliminated the Chen Dynasty, ending the long-term split situation of the Northern and Southern Dynasties and achieving national unification. Although the Sui Dynasty had a short existence, it was an extremely important period. The national strength reached a new height since the Han Dynasty. During the Daye period, the number of registered households controlled by the state exceeded that of the prosperous Tang Dynasty. The economy was prosperous, and the granaries were abundant.

There were a relatively large number of Buddhist scriptures copied in the Sui Dynasty, with nearly a hundred pieces having clear chronological records. They originated from both Dunhuang itself and the inland areas. Generally speaking, the Buddhist scriptures copied in the Sui Dynasty, on the basis of inheriting the style of the Northern Dynasties, integrated a large number of techniques from the Southern Dynasties and were more standardized and rigorous. Due to the long-term separation and lack of communication between the north and the south, the Sui court unified the official copied versions, proofread the Confucian classics and Buddhist scriptures, corrected the errors, and promoted the standardization of scripture copying, and the format of the scrolls was also fixed. The calligraphy of the Sui Dynasty integrated the styles of calligraphy from the north and the south, possessing both the gentle, graceful, and elegant characteristics as well as the profound, vigorous, and robust features. It summarized the characteristics of the calligraphy styles of the north and the south and laid the foundation for the standardization and regularization of calligraphy in the Tang Dynasty. As Sha Menghai said, the calligraphy of the Sui Dynasty inherited the diverse legacy of the Jin, Southern and Northern dynasties and initiated the new situation of standardization in the Tang Dynasty, making it a crucial period in the history of medieval calligraphy.

Scrolls such as The Thirty-third Volume of the Mahāparinirvāṇa Sūtra in the fourth year of Daye (608) are neatly and rigorously written, with upright strokes and a reasonable structure, almost without any flaws. These scriptures not only represent the highly developed style of copying Buddhist scriptures in the Sui Dynasty but also mark the complete maturity of regular script, pushing the style of copying scriptures to an unprecedented height in terms of technical aspects. By comparing them with the stele inscriptions with better carving craftsmanship of the same period, one can find similarities in the handling of brushwork and structure, and observe the characteristics of the integration of calligraphy styles from the north and the south. This is the popular calligraphy style of the Buddhist scriptures copied in the Sui Dynasty, and also the basic format of the small regular script in the Sui Dynasty.

3.4 The Tang Dynasty Period (618 - 907)

In the long river of Chinese history, the Tang Dynasty is like a dazzling superstar, shining with unparalleled brilliance. It is not only the peak stage of the development of Chinese feudal society but also the heyday in the history of Dunhuang art. Regarding the historical periodization of the Tang Dynasty, there are different views between the academic circles of historical studies and those of Dunhuang studies. The academic circles of historical studies usually divide it into four stages: the Early Tang Dynasty, the High Tang Dynasty, the Middle Tang Dynasty, and the Late Tang Dynasty. However, considering the special

social and political situation and the characteristics of literary and artistic development in the Dunhuang region, the academic circles of Dunhuang studies define the period from the first year of Wude of Emperor Gaozu of Tang to the first year of Shenlong of Empress Wu Zetian (618 - 705) as the Early Tang Dynasty, the period from Emperor Zhongzong of Tang to the second year of Jianzhong of Emperor Dezong of Tang (705 - 781) as the High Tang Dynasty, the period from 781 to 848 when Dunhuang was occupied by the Tubo as the Middle Tang Dynasty, and the period of Zhang Yichao's Guiyijun regime from 848 to 907 as the Late Tang Dynasty. The regime of the Zhang family continued until about 914 when it was replaced by the regime of the Cao family. At that time, the Central Plains had already entered the Five Dynasties period. It is worth mentioning that among the copied manuscripts of Buddhist scriptures unearthed from the Library Cave, those from the Tang Dynasty account for a large proportion, roughly estimated to be more than 70% of the total. This situation makes it necessary to divide the calligraphy of Dunhuang in the Tang Dynasty into different stages for in-depth investigation, and naturally, the calligraphy of Dunhuang in the Tang Dynasty becomes the main object of study.

The prosperous scene of calligraphy in the Tang Dynasty is closely related to the love of the emperors and the strong promotion of the government. Almost every Tang emperor was a passionate lover of calligraphy art. They were not only obsessed with calligraphy but also actively engaged in calligraphy creation, research, and the promotion and popularization of calligraphy. As early as the second year of Zhenguan, the court restored the official positions related to calligraphy, and when selecting officials, calligraphy proficiency was regarded as one of the important assessment criteria, being equally important as the other elements in the "Four Talents". As the saying goes, "What the superiors like, the inferiors will follow." The preference and promotion of calligraphy by the upper rulers quickly set off a craze for studying calligraphy nationwide, making calligraphy art deeply rooted in people's hearts.

In terms of the evolution of calligraphy styles, the Tang Dynasty witnessed the in-depth integration of calligraphy from the north and the south. The southern technical system represented by Wang Xizhi and Wang Xianzhi was relatively novel and advanced. In the Tang Dynasty, the integration of calligraphy from the north and the south was completely accomplished, and the "new method" occupied the central position in the field of calligraphy. The southern calligraphy scripts and the northern stele inscriptions gradually merged, and the southern style took the advantage with its unique charm. The script style of calligraphy copies became popular for a time, while the stele inscription method was on the verge of being lost. In the Early Tang Dynasty, the regular script skills of "professional scribes" had reached a quite high level. The central government offices of the Tang Dynasty set up various positions related to writing and incorporated them into the government management system. The improvement of the calligraphy environment by the official sector was undoubtedly one of the key factors for the highly developed calligraphy in the Tang Dynasty. The calligraphy of Dunhuang in the Early Tang Dynasty, to a large extent, inherited the style and charm of the Sui Dynasty. Many works were similar in brushwork techniques to the styles of Yu Shinan and Ouyang Xun, fully demonstrating the unique style of calligraphy in the early Tang Dynasty.

From the founding of the Tang Dynasty, after years of recuperation, by the fifth or sixth year of Zhenguan, the social situation gradually stabilized, class contradictions were alleviated, and the economic situation also recovered and developed rapidly. After the continuous promotion during the reigns of Emperor Gaozong of Tang and Empress Wu Zetian, during the reign of Emperor Minghuang of Tang, the Tang Dynasty ushered in the famous "Golden Age" in history - the Kaiyuan and Tianbao periods, known as the "High Tang Dynasty" in history. During this period, the agricultural economy reached the peak of the feudal small-scale peasant economy era, and culture and art also presented an unprecedented prosperous scene.

However, Dunhuang in the Middle Tang Dynasty experienced a special history. At this time, Dunhuang was basically under the rule and management of the Tubo. The people of Shazhou fought a ten-year arduous struggle to defend their homeland against the Tubo. But in the end, due to isolation and lack of support, with "food and weapons exhausted", they had to sign a treaty signed under duress with the Tubo, and Dunhuang fell into the hands of the Tubo ever since. The Tubo was a Tibetan regime located in the Tibet region. In history, it had both close political and economic exchanges and frequent disputes with the Tang Dynasty. After occupying Dunhuang, the Tubo implemented its own tribal system and brutally suppressed the local people's resistance, resulting in a sharp decline in social production.

During this period, the scribes responsible for copying Buddhist scriptures were called "Scripture Copying Judges". However, due to political opposition and traffic barriers, writing tools and materials such as ink, paper, and pigments became increasingly scarce, which greatly restricted the development of literature and art. In the middle and late Tang Dynasty, with the continuous expansion of the application scope of Buddhist scriptures, the task of copying became more and more arduous. However, the writing attitude and earnestness of professional scripture scribes were much worse than those in the Sui Dynasty and the Early Tang Dynasty. The deepening of "professionalization" gradually loosened the standardization of texts in terms of the number of words, lines, etc., and the solemn and sacred atmosphere was increasingly diluted, and the tendency of uniformity became more and more obvious. Some copied manuscript scrolls were even criticized by Mr. Huang Binhong for having sufficient brushwork but insufficient ink technique, and were called "servile calligraphy". In addition, the political opposition and regional isolation during the Tubo's rule led to a shortage of materials, and the restrictive effect of this situation on the development of calligraphy was particularly evident in various social and secular documents. In the manuscripts of the Middle Tang Dynasty, the feeling of being free and unrestrained was extremely rare, and the style of copying Buddhist scriptures became more and more mediocre.

In 842 AD, after the death of Langdarma, the Zanpu of the Tubo, the Tubo fell into multiple internal divisions, and its power rapidly declined. In 848 AD, Zhang Yichao (799 - 872), a local wealthy man in Shazhou, stood out and led the people to launch an uprising, successfully driving away the Tubo garrison generals. Subsequently, Zhang Yichao successively recovered Guazhou and Shazhou, and then recovered Suzhou, Ganzhou, Yizhou, Xizhou, etc. Zhang Yichao was loyal to the Tang Dynasty, "vowed to return to the motherland", and sent ten groups of envoys to report the victory to the Tang court. One group of envoys arrived in Chang'an in 851 AD. The Tang court highly praised him and immediately appointed Zhang Yichao as the Jiedushi of Hexi and the Inspector of eleven prefectures including Shazhou and Guazhou. Soon after, the title was changed to the Jiedushi of the Guiyijun. Since then, the Guasha region once again became the political, economic, and cultural center of Hexi, and Dunhuang entered a period of the Guiyijun that lasted for nearly two hundred years. In 861 AD, Zhang Yichao captured Liangzhou and completely drove the Tubo's forces out of the Hexi region. Although significant victories were achieved in politics and military affairs, in the field of calligraphy, it was difficult to reverse the decline. The calligraphy of the Buddhist scripture scrolls in this period mostly had a single form of strokes, was too regular, the techniques were somewhat hasty, and lacked implicit charm, typically reflecting the decline of the calligraphy style in the Late Tang Dynasty.

3.5 The Period of the Five Dynasties and the Northern Song Dynasty (914 - 1036)

During the eventful historical period of the Five Dynasties and Ten Kingdoms, the Central Plains were plunged into a turbulent situation of separatist rule and division, with constant disputes among various regimes. However, the Guiyijun regime in Dunhuang, located in the northwest, managed to maintain its existence in a corner of the region for nearly two centuries amidst the chaos. Initially, the Guiyijun regime was under the control of the Zhang family. Later, due to the poor governing ability of Zhang Chengfeng, the grandson of Zhang Yichao, he hastily established the "Jinshan State." But the good times didn't last long. The "Jinshan State" was defeated in the confrontation with the Uyghur, falling into a difficult situation both internally and externally. At this critical moment, Cao Yijin stepped onto the historical stage and took power. After that, many members of the Cao family, such as Cao Yuande, Cao Yuanshen, and Cao Yuanzhong, successively ascended to the throne. They implemented a series of measures, gradually stabilizing the regime.

The Cao regime was well aware that Buddhism had a long history and was deeply rooted in the hearts of the people in Dunhuang. Therefore, they vigorously promoted Buddhism and carried out numerous Buddhist activities, cleverly using the power of religion to consolidate their rule. In the field of culture and art, the Guiyijun regime continued to make progress based on the glorious achievements of the Tang Dynasty and maintained frequent and close exchanges with the regimes in the Central Plains, such as the Later Jin, Later Han, Later Zhou, and the Northern Song Dynasty. These exchanges were not only reflected in political and economic aspects but also in the mutual penetration of culture and art, giving the culture and art of the Dunhuang region a unique regional characteristic.

In 960 AD, Zhao Kuangyin launched the Chenqiao Mutiny and established the Northern Song Dynasty. In 973 AD, the Northern Song court conferred many important official positions on Cao Yuanzhong. This act marked the formal recognition of the Cao regime by the orthodox government in the Central Plains and injected new impetus into the stability and development of the regime. However, as time went by, in the early 11th century, the Western Xia rapidly rose, and its power gradually infiltrated the Hexi region like a tide, becoming the most powerful threat to the Cao regime. In 1028 AD, the Western Xia army captured Ganzhou and Liangzhou. In 1036 AD, they successively occupied Suzhou, Guazhou, and Shazhou. By then, the Western Xia almost controlled the entire Hexi region. According to the record of "Guazhou and Shazhou" in *Song Huiyao*, the Guiyijun's last tribute to the Song Dynasty was in October of the fourth year of Huangyou (1052 AD), which also implied that after a long period of time, the Guiyijun regime finally came to an end.

In terms of calligraphy art, during the period of the Five Dynasties and the two Song dynasties, there were significant changes in social aesthetic trends. People began to advocate more for the expression of individuality and the release of subjective emotions. This shift in fashion also had a profound impact on the development of Dunhuang calligraphy. In various types of manuscripts in Dunhuang during this period, we can clearly observe a significant increase in the proportion of running script and cursive script. Calligraphers paid more attention to the contrast of ink shades during the writing process. There even emerged more and more ways of copying without caring too much about the craftsmanship, such as writing directly without drawing the black silk grid lines, which was relatively rare in the Tang Dynasty. These changes indicate that the traditional rules and conventions of calligraphy were gradually loosening, and the elements of randomness and naturalness in writing were constantly increasing.

At the same time, in the late Five Dynasties and the early Song Dynasty, the invention and popularization of woodblock printing also had a certain impact on the handwritten Buddhist scriptures in Dunhuang. Large-scale woodblock-printed Buddhist scripture volumes organized by the government emerged one after another. The style of handwritten Buddhist scriptures also quietly changed, presenting the characteristics of square characters, straight strokes, and neat arrangements, which became one of the most intuitive features to distinguish between the Buddhist scriptures of the Tang and Song dynasties. With the increasing popularity of woodblock printing, the manuscripts in the Song Dynasty were gradually replaced by printed editions. The function of manuscripts also underwent a fundamental transformation. From being mainly practical at the beginning, it gradually evolved into a purely religious function, that is, being copied for the purpose of accumulating merits. It even, to a certain extent, had a purely artistic function, becoming a carrier for calligraphers to showcase their calligraphy skills. Its original practicality and rationality almost completely shrank, being limited only to the categories of accumulating merits and artistic creation.

The process of classifying Dunhuang calligraphy did not happen overnight and was not clearly demarcated. In fact, its development was very slow, with each stage alternating and repeating. The dividing points were not absolutely clear and irreversible. Moreover, due to the different levels of calligraphy cultivation of the scribes themselves and the varying degrees of influence from the social aesthetic consciousness at that time, there could be significant differences among the calligraphy works of different individuals. Nevertheless, in each specific historical period, Dunhuang calligraphy generally had its unique "standard works." These "standard works" covered the format specifications of Buddhist scripture volumes, the ceremonial requirements of calligraphy etiquette, and, of course, the unique styles presented by the calligraphy scripts. From a macroscopic historical perspective, the development context of Dunhuang calligraphy can be roughly divided into three stages: the early stage from the 4th to the 6th century, during which the calligraphy style had a certain quaint charm; the middle stage from the 7th to the 8th century, when calligraphy art gradually moved towards maturity and prosperity; and the late stage from the 9th to the 11th century, during which Dunhuang calligraphy showed a unique style of the era in inheritance and transformation.

4 Influencing Factors of the Evolution of Regular Script Fonts in Dunhuang Manuscripts

4.1 The Succession of Historical Dynasties

The succession of historical dynasties has had a profound impact on the evolution of the fonts in Dunhuang manuscripts. The political, economic, and cultural environments of different dynasties have provided a unique soil for the evolution of fonts. During the Wei and Jin dynasties, society was in turmoil, with frequent regime changes, continuous wars, and people living in hardship. However, this turbulent social environment provided a relatively relaxed atmosphere for the development of ideology and culture. In the field of calligraphy, people's pursuit of calligraphy placed more emphasis on the expression of individuality and emotions, and the evolution of fonts showed a diverse trend. During this period, official script gradually transitioned to regular script, and running script and cursive script also developed further.

4.2 The Penetration of Religious Culture

The widespread dissemination of religious culture in the Dunhuang region has had a profound and lasting impact on the evolution of the fonts in Dunhuang manuscripts, with Buddhism and Taoism having particularly significant influences. Since Buddhism was introduced into China in the Eastern Han Dynasty, it experienced rapid development during the Wei, Jin, Southern and Northern Dynasties, and the Dunhuang region became an important hub for the spread of Buddhism. The prosperity of Buddhism led to the need for a large number of Buddhist scriptures to be copied and disseminated, which gave rise to specialized groups of scripture copiers, such as monks and professional scripture scribes (Sha, 1991). Their writing styles gradually formed a unique style of copying Buddhist scriptures, which became an important part of the fonts in Dunhuang manuscripts.

The formation of the style of copying Buddhist scriptures is closely related to the spread and belief of Buddhism. Buddhism emphasizes piety and concentration. When copying scriptures, scripture copiers often do so with a heart of awe for the Dharma, striving to write neatly and standardly to express their piety and respect for Buddhism. This mentality makes the style of copying Buddhist scriptures pay attention to the regularity and smoothness of strokes in terms of brushwork. There are strict norms for the beginning, middle, and end of strokes, and every effort is made to be meticulous. In terms of structure, the style of copying Buddhist scriptures pursues stability and dignity. The characters are regular in shape, and the center of gravity is stable, giving people a solemn and respectful feeling.

4.3 The Identity and Purpose of the Writers

The writers of Dunhuang manuscripts came from different social strata, including officials, scholars, monks, professional scripture scribes, and ordinary people. Their identities and writing purposes varied, and these differences had a significant impact on the font styles.

As representatives of the ruling class, officials' writing often has a high degree of standardization and rigor. They have received a good education and have high requirements for calligraphy, paying attention to the application of brushwork and the standardization of structure. When writing official documents and decrees, in order to reflect the authority and seriousness of the government, officials usually adopt more regular fonts, such as regular script or official script. These fonts have regular strokes and a rigorous structure, giving people a solemn and stable feeling. However, the calligraphy styles of officials are also influenced by the social culture of the times. The calligraphy styles of officials in different dynasties may vary, but generally, they all reflect a certain level of cultural accomplishment and aesthetic taste.

As inheritors and creators of cultural knowledge, scholars' calligraphy often reflects a high level of artistic standard and cultural connotation. Scholars are proficient in the Confucian Classics, Histories, Masters' Works, and Anthologies, and they have an in-depth study and understanding of calligraphy art. When writing, they pay attention to expressing their thoughts and emotions and pursue the artistic and aesthetic value of calligraphy. The calligraphy styles of scholars are diverse. On the basis of inheriting traditional calligraphy styles, they have their own unique artistic styles.

Monks regard copying Buddhist scriptures as a way of practice. When copying, they do so with a devout belief, and their fonts are often neat, dignified, and full of religious solemnity. Monks' copying of Buddhist scriptures is a practice behavior. They hope to accumulate merits and obtain spiritual purification and liberation through carefully copying Buddhist scriptures. The calligraphy styles of monks are also influenced

by Buddhist culture. Concepts such as compassion and emptiness in Buddhism penetrate into calligraphy creation, making the fonts of monks pay more attention to the expression of peace and tranquility and pursue a realm beyond the mundane world.

Professional scripture scribes take copying scriptures as their occupation, and their font styles are influenced by professional requirements and market demands. Professional scripture scribes need to copy a large number of Buddhist scriptures. In order to improve efficiency, their fonts are often concise and smooth, with a high writing speed. At the same time, in order to meet the market demand for Buddhist scriptures, the fonts of professional scripture scribes also need to be neat and standard for easy reading and dissemination. Since there are a large number of professional scripture scribes, there are also certain differences in their font styles, but generally, they all reflect the characteristics of conciseness, smoothness, and neatness.

The writing of ordinary people is more free and spontaneous, reflecting the real state of daily life. When writing, ordinary people often do not have too many calligraphy norms and artistic pursuits. They pay more attention to expressing their own thoughts and emotions, so their font styles are more free and random. Although these writings may seem simple and rough, they reflect the living conditions and cultural levels of ordinary people and have unique historical and cultural values.

5 Conclusion

The Dunhuang manuscripts came into being along with the evolution of Chinese characters and calligraphy styles, spanning a long time period and truly presenting the evolution process of Chinese character writing from the Han Dynasty to the Song Dynasty. They reveal the existence of the calligraphic ink marks on ancient paper scrolls, aside from stone inscriptions, providing an extremely authentic reference for calligraphy creation and research. The evolution process of their calligraphy styles vividly showcases the development of Chinese calligraphy art. Seal script is simple and unsophisticated, official script is solemn, regular script is rigorous, running script is lively, and cursive script is unrestrained. Each calligraphy style contains specific historical and cultural connotations, highlighting the charm of calligraphy in different periods. The changes in calligraphy styles reflect the social development, cultural integration, and the transformation of aesthetic concepts.

The evolution of regular script in the Dunhuang manuscripts is the result of the combined influence of various factors. The succession of historical dynasties brings about changes in the political, economic, and cultural environments, laying a macro background for the evolution of calligraphy styles. The infiltration of religious cultures such as Buddhism and Taoism gives rise to a unique style of sutra writing through the group of sutra scribes, endowing regular script with a solemn and regular style. The different identities and purposes of the scribes, with officials being rigorous, scholars valuing artistry, monks having a religious solemnity, sutra scribes being efficient, and common people being casual, enrich the stylistic levels of regular script. These factors interact with each other, driving the evolution of regular script, making it a record of the development of calligraphy, intuitively presenting the social and cultural features and spiritual pursuits, and providing precious samples and an important window for later generations to study calligraphy, historical culture, and social life. It has greatly filled the gaps in the history of Chinese calligraphy, enabling us to clearly observe the evolution process of Chinese characters from seal and official scripts to regular script from the 4th to the 11th century.

However, the research on the Dunhuang manuscripts also has certain limitations. Firstly, the physical conditions of the manuscripts themselves pose many challenges. Due to long-term preservation issues, many

manuscripts have been damaged, such as ink fading, paper decay, and fragmentation. This makes it difficult to accurately identify some characters and comprehensively understand the original content and calligraphy styles, which may lead to potential biases in the research results. Secondly, the Dunhuang manuscripts are scattered among different countries and institutions around the world, creating obstacles to comprehensive research. It is extremely difficult to collect all relevant materials for in-depth comparative analysis, restricting the breadth and depth of some research projects. In addition, the current research methods are mainly based on traditional philology, history, and aesthetics. Although these methods have achieved remarkable results, they may not be sufficient to fully explore the complex connotations of the Dunhuang manuscripts, and there is a lack of interdisciplinary research to comprehensively understand all aspects of these manuscripts.

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