

The Origin of Engraving and Printing in the Field of Media Evolution Theory “The Early Tang Said” Challenge*

LI Zhenggeng, NIU Ruonan

Changsha University of Science and Technology, Changsha, China

The origin of engraving and printing has a variety of points of view, especially the “early Tang Dynasty” has the most far-reaching impact. Based on media evolution theory, engraved printing as a new media technology is first used in secular culture, folk entertainment, and other fields, after a long period of development, the new medium was accepted by the ruling class, the mainstream society; the use of the media began to intervene in the real society. This reflects that the choice of new media by the society depends on the media itself and is intrinsically linked to the whole social communication environment. Therefore, from the point of view of media evolution, the view that engraving originated in the early Tang Dynasty is not in line with the logic of media evolution and is unreasonable.

Keywords: media evolution, origin of engraving and printing, Early Tang theory, questioning

Introduction

Engraving and printing is one of the four great inventions of China, which has made an extremely important contribution to the culture and civilization of China and the world. At present, the origin of engraved printing is still being discussed in the academic community, mainly “Han Dynasty”, “Eastern Jin Dynasty”, “Six Dynasties”, “Sui Dynasty”, “Tang Dynasty”, and other views. The “Tang Dynasty” is further divided into the early Tang “Zhenguan said”, “Gaozong said”, “Wu Zetian said”, the middle Tang “Zhenguan said” and “Wu Zetian said”. The “Tang Dynasty” is further divided into four major schools, namely, “Zhenguan Period”, “Gaozong Period”, “Wu Zetian Period”, and “Xuanzong Kaiyuan Period” of the Middle Tang. The early Tang said has the greatest influence; its important evidence is the Tang Taizong Zhenguan ten years (636) official “zi line” empress of the “female rule” (Zhang, 2006, p. 9), and government printing of “Printing Paper” in the Second Year of the Emperor Wu Zetian’s Mandate of Heaven (691) (Cao, 2015, p. 356). Engraving and printing is not only a kind of copying technology, but also a kind of information dissemination medium, the origin of engraving and printing is rooted in the intrinsic requirements of the society on information dissemination, and the society’s choice of the new media, the development of the new media, the evolution of the social communication environment by a certain constraint. Therefore, from the perspective of the communication medium of engraving and printing, and taking the theory of media evolution as a point of entry, re-examining the origin of engraving and printing of the “Early Tang Dynasty” is still debatable.

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LI Zhenggeng, Ph.D., Professor, Ph.D. Supervisor, College of Design and Art, Changsha University of Science and Technology, Changsha, China.

NIU Ruonan, Master’s student, School of Design and Art, Changsha University of Science and Technology, Changsha, China.

The Impossibility of the Official Use of Engraving and Printing in the Early Tang Dynasty From the Viewpoint of Media Evolution

The theory of media evolution suggests that a new media technology goes through three stages, “it is first designed as a toy, then used as a substitute for reality, and finally transcends reality and creates a new reality.” (Levinson, 2007, p. 11). That is to say, the new media technology is first used in the non-real world in the fields of religion, witchcraft, or secular culture, folk entertainment, etc. Although the media technology at this stage has an impact, the strong influence of the original traditional media and the monopoly on the dissemination of information in solemn places obscure the new media, so that it is not enough to attract the attention of the official or mainstream society. As the influence of the new media technology in the dissemination of information continues to expand, its inherent convenience and advantages, forced the official to adapt to and recognize the legitimacy of this new media technology, when the media with the help of power began to fully intervene in the real society. “Every medium contains elements of technology, social relations (institutions), and cultural forms, and is shaped by their interaction.” (Grossberg, 2014, pp. 12-13). There is a gradual process of social acceptance and use of new media technologies, in which the nature and status of the new media are constrained by certain social systems, traditional thinking, and cultural concepts.

The earliest record of the use of engraving and printing is the *Book of Yuan Turtle* literature,

(Taihe) nine years (835 years) December Dingchou, Dongchuan Festival Minister Feng Ju Zuo. Permit edicts, banning the printing of calendars and plates. The two rivers of Jiannan and the Huainan Road all sold their calendars in the market, which was not in line with the way of respect and authorization. (Huanfu Yuan Gui, 1960, p. 1932)

Sue Bai speculates,

If we play with the sentence “Every year, before the Siantai issued a new calendar, its printed calendar was already all over the world,” then the beginning of the printing and selling of calendars seemed to be before the ninth year of the reign of the Emperor Taihe. (Sue, 1999, p. 1, 2, 3, 6)

Pinpeat Liu’s “Preface to Liu’s Family Tradition” recorded:

In the summer of the third year of the Zhonghe year (883), the Allied Powers were in Shu for three years. I and Xun Xiu, the middle secretary, read the book in the southeast of the city, the book more yin and yang, miscellaneous records, dream occupation, phase house, nine officials, five weft of the stream, but also the word book, elementary school, the rate of engraved plate printing paper, soak can not be fully understood. (Xue, 1976, p. 589)

In the late Tang Xizong period, the content of engraving and printing is still mainly some folklore, daily use, entertainment, monks, religion, and so on (Xue, 1976, p. 566). Kai Cheng two years (837 years) in October,

dibutyl sebacate, Zaizhen judgment of the State Prince priest Zheng Qin into the “Shibi nine scriptures” one hundred and sixty volumes. At the time on the good text, Zheng Qin to enlightenment, a little fold article of the scholar, then played the five classic doctor, according to the Houhan Cai Bo Harmony publication of the monument listed in the Imperial College, the creation of the “Shibi nine scriptures”, all the Confucian corrections error. (Xue, 1975, p. 571)

At that time, engraving and printing were already popular among the people, and the Late Tang government still used copying and stone carving to reproduce classical Confucian texts, which shows that engraving and printing had not yet attracted official attention.

In the era of writing, the long-standing tradition of writing formed the monopoly of the traditional media over the dissemination of classical and authoritative information, and this led to the formation of media hegemony,

that is, traditional copying and stone carving were regarded as orthodox, formal, and legitimate media of information dissemination. In the early stage of the origin and development of engraving and printing, the ruling class regarded it as a low-grade and vulgar medium due to its folkloric nature and the non-classical and non-authoritative nature of its communication content. The reason for Feng's request to prohibit the printing of calendars was not only to protect the rights and interests of the authors and the right of use of the Qin Tian Jian, as Cao Zhi said (Cao, 1999, p. 520). The real reason is that the official government at that time had no intention to use engraving and printing to engrave the calendar, in the official view, engraved prints are used by the people, unorthodox, not authoritative, and the information carried by this unofficial medium must also be vulgar. Therefore, the use of engravings to print the calendars issued by the court was not only a lack of solemnity in the message, but also a lack of respect for the authority of the court, which is why it was considered by Feng Dou as "a misbehavior of respect and authorization". Before Feng Dao's publication of Confucian classics, although engraving and printing technology continued to develop, it was still mainly popular among the people, and had not yet entered the upper echelons of mainstream society. Although some local officials in the late Tang Dynasty used engraved printing, it was also a personal act, and the content of the engraving was still a non-Confucian classical literature of Taoist biographies.

From the Media Competition in the Early Tang Dynasty, It Is Unlikely to Appear Higher Level of Engraved Printing Technology

Relative to manual copying and reproduction, engraving and printing is the innovation of text reproduction technology, but also a change in the medium of communication, the engraving and printing of the media significance of the most direct embodiment of the revolution, liberation and replacement of manual copying. Song History—Art and Literature Zhi:

Caught in the five seasons, the dry and searching, the sea is boiling, the people no longer see poetry, books, rituals, music. Zhou Xiande, began to have the scriptures engraved boards, scholars without the labor of writing, get to see the whole book of the ancients. (Tutu, 1977, p. 5032)

Due to the nature of the traditional media itself, such as writing books, stone carving, so the dissemination of information in time, space, environment is greatly restricted. Zhu Changwen said:

the ancient books contained in the paper and ink of a few Xi, and stored in the gold and stone, such as outside the capital, the four sides of the far, and the mountains and forests between the tomb, only the position of Herculean, the people of the close and close attached to the good and very good for those who are able to be placed also. (Zhu, 2015, p. 368)

As a new medium, the printed book not only transplanted, imitation writing, lithography, and other old media, but also "remedies" the writing, lithography, and other old media defects. Huang Wo Yun:

although buried in the rock, the valley is difficult to move, and the secret of the stone, the first can not be seen. What if the ink is not dry, sent to the paper, passing ten for a hundred, passing a hundred for a thousand? (Huang, 2015, p. 4470)

Kong Yanzhi also said:

the title of the board as publication of the stone, publication of the stone as ink on paper. If you want to recite the Qingfen of the former, search for the release of the Sifen and pass on the long-distance, the paper is still carry on. (Kong, 2015, p. 232)

Printing in the information dissemination of time and space, there are written, carved in stone incomparable strong dissemination of penetration, promotes the dissemination of information quickly and conveniently, for the

community to provide a large number of fast, cheap, lightweight information dissemination, such as Hu Yinglin that:

to the end of the Tang and early Song Dynasty, the notes and records a change in the printing of the facsimile, a change in the scroll and a book for the booklet. Easy to become, difficult to destroy, save money, easy to hide, the four good with it. (Hu, 1958, p. 61)

Printing in the information dissemination time, space, in the dissemination of speed, quantity, breadth, storage on the incomparable media advantages of transcription and carving, meets the social dissemination of information on the pursuit of information to break through the constraints of space and time inherent needs, so as to be able to transcend the writing of the book, the old medium of the carving of the stone.

The intrinsic need of society for information dissemination and the advantages of new media information dissemination objectively lead to the old and new media being in a situation of constant competition in the process of information dissemination. "The magic of the medium is created the moment people come into contact with it, just as the magic of a melody is cast in the first few verses of the melody." (McLuhan, 2011, p. 27). As the new media develop, their influence will inevitably be exerted at all levels of society, making it impossible for the old and new media to remain static and balanced.

The new medium will never be an addition to the old, nor will it let the old have a clean slate. It will never cease to oppress the old media until it finds new forms and new places for these old media. (McLuhan, 2011, p. 238)

With engraving and printing medium advantage, the status of the writing medium of the competition, will inevitably have a significant impact on the copying, so that the two in the dissemination of information in the status and value will continuously change. Hong Sung Kui said:

the former generation of books are Chu Su copying, to the five seasons began to have the six scriptures ink version, the beginning of the state and publication of Sima Qian, Ban Gu, Fan Ye history, in order to honor the scholars, is not yet all right. Today, all books are not version carry on. It is difficult to copy by hand, and it is easy to gather and pass on the edition. (Hong, 2015, p. 236)

Yang Shou Chen also said:

Han, Wei began to have today's paper, ink and regular script, the pen is easy to carry on, but there is no pen and into the book. To Wei Taihe has a stone scripture, Jin Tianfu copper plate nine scriptures, all can be paper and ink copying and printing, no need to write, pass also not wide. After the Tang Dynasty, there are wooden boards, the past to zi, today to pear, publication of copying is very easy, so the "Five Classics" are printed all over the world, people do not rewrite, easy very much. (Zhu, 2009, p. 1973).

Although the printed book can not completely replace the written book, the printed book, with its media advantage and media impact, will continue to compress the copying of the living space, so that it gradually withdrew from the main field of text reproduction. Chen De Di Yun: "the invention of engraving and printing, so that the engraved books gradually replaced the hand-copying, after that, the commission book industry declining, and finally withdrew from the field of book production." (Chen, 2004, p. 67). Copying, with the decline of the book industry, is printed instead of writing the status and value of the book triggered by the inevitable result of the new medium of engraving and printing changes in the impact of social writing directly.

From the nature of the two mediums of copying and engraving, evolution, in the engraving and printing technology is mature, after the general use of society, copying and engraving cannot be in an equal and balanced

position, as scholars have questioned:

and sui when there are carving this, tang wen huang hu not wide of its legacy system, engraving the books, but is the election of five or more of the children's work of the book, into the Hongwen Hall copy book. This can be known when the early Tang, the existence of engraved version is still in doubt. It is not credible that Lu and Hu thought that the existence of engraved plates in China began in the Sui Dynasty. (Jiang, 1990, p. 60)

The fact is that the Tang Dynasty was the most prosperous period of the ancient Chinese writing book; writing book era information dissemination, characterized by manual copying, is the most important way of information reproduction, and book production.

In the two hundred years after the Zhenguan period, despite the forward development of economic production and academic culture, there is no trace of any clear and unambiguous historical information about engraving and printing. And the Tang government in the two hundred and seventy years after Emperor Taizong did not utilize the printing press to engrave any works, and only Emperor Taizong "made zi xing" the Women's Rules, and in the beginning of the Tang Dynasty, which is obviously contrary to the facts. (Zhao, 1990, pp. 212-213)

It is true that, if one thinks that the higher level of engraving and printing was widely used in the early Tang society, but admits that the Tang Dynasty was still the era of writing, or that the technology of engraving and printing was perfected in the early Tang society and was widely used by the officials and the society in the early Tang Dynasty, but admits that the government of the late Tang Dynasty still copied the documents with copying, it indicates that copying had the ability to suppress engraving and printing and maintain its mainstream position of text reproduction in the Tang Dynasty in the past 300 years. Printing and maintaining its text reproduction mainstream position, this understanding is not only not in line with the media development, the evolution of the law, but also indirectly denied the invention of significant innovation in engraved printing.

Wu Zetian "Printing Paper" Has Nothing to Do With Engraved Printing Technology

In addition to Cao, many researchers also use "printing paper" as the early Tang official use of engraved printing important documentary basis. For example, Pan Jixing believes that: "This refers to the 691 palace issued by the palace pass, then woodblock printing is still used in the palace affairs." (Pan, 2001, p. 5). Sun Ji argues that the official printing of "printed paper" during the Tang dynasty "indicates that a portion of printed matter had by this time entered the realm of government paperwork." (Yang & Sun 1996, p. 206). According to Fang Xiaoyang and Shi Jilong,

This kind of "printed paper", which is similar to the present-day tax documents, was most likely engraved and printed by the Tang government and then issued to the merchants. Zhang Xiumin was the first to notice this document, which is the most typical example of the use of engraving and printing for economic activities in the middle of the Tang Dynasty. (Fang & Shi, 2011, p. 52)

Li Zhizhong also deduced:

Whether it is Wu Zetian issued to Wang Qingzhi in and out of the palace vouchers "printing paper", or the Imperial Household Temple Chancellor used "large facsimile printing paper", or issued to the city teeth as a record of trading "seal paper", are all tangible evidence that the central government of the Tang Dynasty adopted engraved printing technology, only that it had not yet printed books on a large scale. (Li, 2007, p. 3)

Some researchers even believe that China had already printed the world's earliest newspaper in the mid-Tang Dynasty, such as Fang Hanqi Yun: "The earliest printed newspaper in China was the *Kaiyuan Miscellaneous*

Newspaper published in Chang'an, the capital of the Tang Dynasty, in the early eighth century, and it was also the earliest printed newspaper in the world." (Fang, 1990, p. 330). Recently Chen Li also argues that "at the latest in the early Tang Dynasty, when Yonghui, there were already engraved printings of Buddhist scriptures, and during the Kaiyuan period (714-741) engraved printings were already used to publish Tipao." (Chen, 2016, p. 12). If the early Tang or the Tang government has formally recognized the legal status of the medium of engraving and printing and widely used them, why then the late Tang government, but still regarded it as an informal medium and rejected, to the extent that it is still copied by hand to reproduce documents? Therefore, from the evolution of the medium, the early Tang Emperor Tang Taizong Zhenguan ten years (636 years) printing Empress "female rule", Wu Zetian Tianjiu two years (691 years) printing "printing paper", or other official use of engraving and printing during the Tang Dynasty evidence, does not accord with the actual situation of the social communication environment at that time, also does not accord with the logic of the development of things, and therefore it is one-sided.

Another researcher believes that:

in the early Tang Dynasty, engraved printing has been very popular, and the principle of this technology has been generally recognized, a large number of documents and physical data have been fully proved, to the late Tang Dynasty, China has been using engraved printing books, and its skeleton plate and ink printing technology has reached maturity. (Chen 2016, p. 14)

This understanding does not correspond to the historical facts. The printed book is to be generally accepted by the majority of intellectuals and members of society, only in the engraving and printing technology to fully intervene in social reality, with the nature of the printed information changes; it can become possible that the printed book has become the standard text of knowledge dissemination situation. "In the middle of the 10th century, both the north and the south were engraving and printing scriptures. This completely broke the tradition of literati contempt for printed books." (Su, 1999, p. 6). Printed and written status, value, and literati to the printed concept of acceptance of the change, during the mid-10th century after the Northern Song Dynasty, only became a reality. Some researchers believe that:

in the Sui and Tang dynasties, with the development of society, especially the emergence of the imperial examination system, education in ancient China began to develop in the direction of popularization, and also provided the conditions for the universal use of printed materials. (Chen, 2016, p. 10)

This is the fruit for the cause, which is printed on the copy of the book, the topography of the status of the replacement, only to make the system of science and technology using printed books, but the system of science and technology using engraved books, not only the early Tang Dynasty, that is, the entire Tang Dynasty is not available. Shen Kuo (2002) said: "plate printing books, the Tang people have not yet prevailed for." (p. 131). Susumu Inoue (2015) also says: "As to what exactly is a Tang dynasty publication, it is still in a state of ambiguity." (p. 239). The reason for the printing of the Tang dynasty, "unsheng", "ambiguous", is that the Tang dynasty engraved printing activities, mainly confined to the private sector, basically private behavior, and its legal status has not yet been recognized by the official, literati, and scholars, the engraved printing of the Tang dynasty. Scholars recognized, engraved printing has not been fully involved, reflecting the reality of society, large-scale engraving, and printing activities have not begun to rise.

Many researchers have thoroughly examined and analyzed whether Yuan Zhen, a poet of the Middle Tang Dynasty, recorded the “Mule” of Yuan Bai’s poems as a carving or not¹ (Xin, 2007). If from the point of view of the evolution of the medium, the Late Tang Dynasty engraved books are still mainly confined to folklore, religion, daily use, word book class, with engraved printing to print the literati anthology, and that does not conform to the mainstream concept of the society at that time. Zhou Yiliang Yun: “Because the early printing press for the people of the masses welcome the use of, and to the end of the ninth century, the ruling class is still appreciating written books, hate printed books.” (Zhou, 1955, p. 11). At the end of the Tang Dynasty, Xu Yin said in his “Ten Rhymes of Self-Chanting”, “I have heard of the engraving and printing, and I have seen the painting and drawing of the bad poems.” (Huang, 1998, p. 523). At that time there were folk printing literati poetry and literature works behavior, but the literati on the concept of engraving and printing technology is not related. According to the *New History of the Five Dynasties and He Ning Biography*: “He Ning paid great attention to his appearance and dress, and regarded writing numerous articles as a sign of wealth. He had a collection of over a hundred volumes, and once had them engraved and printed to circulate in the world. Most people who knew about this criticized him.” (Ouyang, 1974, p. 640). Lv Si Mian (2005) said: “know more than not. Cover since the engraved anthology, its fashion is rare.” (p. 1079). Engraving and printing literati works with engraving and printing technology was not only rare at that time, but also not recognized by the literati. In the view of the rulers and mainstream literati of the Late Tang Dynasty, the printed book remained a textual medium that was not respected.

In terms of the evolution of print, this was not yet the time for literati scholars to publish collections of texts; Yuan Zhen would inevitably carry a self-defeating connotation if he said during the Changqing period that his own and Bai Juyi’s works had been printed and sold. (Yang & Sun, 1996, p. 207)

Yuan Zhen recorded the time of this matter is the Tang Changqing four years (825 years), assuming that at this time there was a carving plate printing books, but at this time the literati simply did not accept the concept of printed works of literature printed preparation. Yuan Zhen, to show off the tone of the solemn record of this matter, can only be said that the “mold le” actually has nothing to do with the carving and printing. Not only the late Tang officials regarded the engraved printing as folk, vulgar things and refused to use, when the literati also did not take too much attention to the engraved printing. Yuan Zhen recorded the time of this matter is the Tang Changqing four years (825 years), assuming that at this time there was a carving plate printing books, but at this time the literati simply did not accept the concept of printed works of literature printed preparation, Yuan Zhen to show off the tone of the solemn record of this matter, can only be said that the “mold le” actually has nothing to do with the carving and printing.

Conclusion

Engraving and printing is both a graphic reproduction technology and a communication medium. As a communication medium, the origin and development of engraving and printing is a dynamic and competitive process of media evolution, which is not only constrained by the inherent requirements of society for the dissemination of information, but also intrinsically linked to the political and economic system, cultural habits, and traditional concepts of thinking. Engraving and printing originated from the folk, after a long period of

¹ For a detailed examination and analysis of “Mule”, see Xin Deyong. The Tang people mold le Yuan Bai poem is not engraved printing said [J]. *Historical Research*, 2007(6).

development, it was accepted and used by the ruling class and mainstream society, and began to intervene in the real society. This reflects that the social choice of new media depends on the media itself and is intrinsically linked to the whole social communication environment. Therefore, it cannot be isolated, static method of research on the origin of the early Tang dynasty engraved printing, but should be placed in a specific historical context, so that it is possible to get a more comprehensive, reasonable conclusion. Therefore, from the currently known carving and printing objects and literature, the origin of engraving and printing “early Tang said” is inconsistent with historical facts, the origin of engraving and printing appeared in the period, “may be in the era of Emperor Xuanzong of the Tang Dynasty” (Sue, 1999, p. 3), or “must not be earlier than the Tang Xuanzong Kaiyuan years” (Xin, 2016, p. 265).

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