

Regulation and Vitality: The Paradigm and Transformation of Longwei Inkstone Production in the Song Dynasty

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ABSTRACT This study examines the Longwei inkstone of the Song Dynasty from the perspectives of flourishing conditions, production paradigm, and historical transformation. First, the literati trend of inkstone collecting, the cultural appreciation of ornamental stones, and the rise of local educational and cultural hubs under the imperial examination system jointly established the craft foundation of Longwei inkstone production during the Northern and Southern Song periods. Second, within a distinctive “state-community synergy” production framework, governmental authorities standardized tribute inkstone manufacturing, while private workshops promoted personalized artistry, market circulation, and brand consciousness. Third, although Longwei inkstones were already valued as rare objects during the Song Dynasty, they underwent a post-Song reified transformation from active instruments of scholastic production into semi-sacred relics of antiquity. This transformation marks a shift from functional utility in living literati culture to symbolic heritage status. Based on textual evidence, historical records, and material examples, the research presents a diachronic case of traditional Chinese craft evolution and provides a historical perspective for studying ancient production organization and craft-technology culture.

INDEX TERMS longwei inkstone, song dynasty, production paradigm, craft history, cultural symbols

I. BACKGROUND OF THE ISSUE

INKSTONES are an important part of China’s tangible cultural heritage. In 2006, the traditional craftsmanship of She inkstones was included in the first batch of the National List of Intangible Cultural Heritage. As one of China’s four famous inkstones, the preservation and transmission of She inkstones and their craftsmanship have already reached a certain scale. However, with the passage of time, the native soil of the Longwei inkstone—once the epitome of She inkstone quality—has undergone changes. Its design and production have been influenced by technological advancements, contemporary aesthetics, and shifting consumer attitudes.

If we focus solely on the current transmission and innovation of She inkstone craftsmanship without connecting its past with its present, then She inkstones and their associated techniques will ultimately become mere specimens, losing their vitality. Huang Tingjian’s description, “Carved, polished, and shaped like the rising sun,” captures the flourishing scene of Longwei inkstones in Wuyuan during the Song Dynasty. Although Longwei inkstones appeared as early as the Southern Tang Dynasty, it was not until the Song Dynasty that a wealth of related literary works emerged. Furthermore, the recent discoveries of inkstone workshop sites in Yanshan Village, Wuyuan—most dating to the Song

Dynasty—have helped sketch out a historical panorama of inkstone production during that era.

All of the above raises numerous questions: Why did Longwei inkstones reach their peak of development during the Song Dynasty, and what events occurred at that time? Beyond their craftsmanship characteristics[1], what were the specific production processes of Song Dynasty Longwei inkstones? Who were the people involved in shaping the craftsmanship system of Song Dynasty Longwei inkstones? These questions form the research focus of this paper.

II. THE ORIGINS OF THE SONG DYNASTY DRAGON-TAIL INKSTONE

A. TIMELINE OF LONGWEI STONE MINING IN THE SONG DYNASTY

The first volume of *The Compendium of Shezhou Inkstones* by Tang Ji of the Song Dynasty, titled “The First Chapter on Extraction and Processing,” records the origin of the Dragon’s Tail inkstone: “During the Kaiyuan era of the Tang Dynasty, a hunter surnamed Ye pursued game to Changchengli, where he saw stacked stones resembling a fortress, lustrous and beautiful. He took them home, roughly carved them into an inkstone, and found them to be far more lustrous and moist than those from Duanxi. Several generations later, one of Ye’s grandsons presented it to the local

magistrate. The magistrate admired it and commissioned a skilled artisan to carve it into an inkstone; thus, its fame began to spread from the foot of the mountain”[2].

This is the original account of the Longwei inkstone’s origins during the Kaiyuan era of the Tang Dynasty. We might analyze this textual information as follows: Longwei stone had already been mined since the Tang Dynasty, but it took roughly several generations from the discovery of the stone to its transformation into inkstones and widespread popularity. Although Longwei stone was discovered by the Ye family during the Kaiyuan era of the Tang Dynasty, it was not until several generations later that the descendants of the Ye family “presented it to the magistrate” and “commissioned skilled craftsmen to carve it into inkstones”; it was only then that the name “Longwei Inkstone” began to spread.

By the Kaiyuan and Tianbao periods of Tang Dynasty, literati were already familiar with the Longwei inkstone. The Record of the Strange and Unusual, written by Tao Gu during the Five Dynasties and early Song periods, records a story related to the Longwei inkstone: “Xiao Yingshi was exceptionally eloquent, but he was also extremely arrogant and impetuous. Once, when he visited the home of Li Shao, the Director of the Granary, he saw a rather fine She inkstone. After taking his leave, he said to his companion: ‘Do you recognize this inkstone? It is a Calamities Stone.’ His companion, not understanding, asked for an explanation. Xiao replied, ‘If one’s letters are unremarkable, grinding it brings the first calamity. If one’s prose is beautiful, grinding it brings the second calamity. If one’s study is in disarray, grinding it brings the third calamity.’ His companion furrowed his brow and nodded in agreement”[3].

During the Southern Tang dynasty, Emperor Li Jing established an inkstone bureau in Shezhou dedicated to the mining and production of inkstones. The Shezhou Inkstone Compendium records: “By the time of the Southern Tang, Emperor Yuan was deeply devoted to calligraphy and ink. The governor of She presented an inkstone and the craftsman Li Shaowei, who specialized in carving them. The emperor praised him, promoted him to the position of Inkstone Official, and ordered the stonemason Zhou Quan to learn from him; thereafter, the number of craftsmen increased significantly”[4]. Emperor Li Yu, on the other hand, “took a keen interest in calligraphy and painting, using Chengxin Hall paper, Li Tinggui ink, and Longwei inkstones; these three were the finest in the land”[5]. From these texts, it is evident that the mining of Longwei stone during the Southern Tang period had already reached a considerable scale and was highly favored by the rulers.

Ouyang Xiu mentioned in the Collected Works of Wen Zhong: “I have used this inkstone for twenty years. When the Southern Tang dynasty existed, an inkstone bureau was established in Shezhou, where skilled artisans were selected and granted ninth-rank official attire, along with monthly stipends and rations. They were titled ‘officials of the inkstone bureau’ and were required to produce a set number



FIGURE 1. Longwei Inkstone of Tang Dynasty (840 CE), Collection of Anhui Museum



FIGURE 2. Dustpan-shaped Longwei Inkstone, Collection of Anhui Museum

of inkstones annually. Those inkstones that are square, flat, and shallow are the official inkstones of the Southern Tang. The stone used is particularly fine, and their craftsmanship differs from the extravagant and crude styles of modern artisans”[6]. This passage serves as a supplementary account of the Southern Tang government’s official procurement and production of Longwei inkstones. Zhao Xigu of the Southern Song Dynasty also noted in his Collected Records of the Pure Realms of the Caves that “during the Southern Tang period, the old Longwei quarry was first opened, but it no longer exists today”[7].

Turning to physical evidence, in 1976, a Longwei inkstone was unearthed from a Tang-dynasty tomb in Hefei; it features a regular shape and exquisite craftsmanship (see Figure 1); The Anhui Museum houses a basket-shaped Longwei inkstone (see Figure 2). This inkstone features an exquisite design and is a typical example of Tang Dynasty She inkstones. Combined with the textual evidence, this confirms that the Longwei inkstone had already made its debut during the Tang Dynasty.

The Palace Museum in Taipei houses a Song Dynasty “Golden Star Dragon Tail” inkstone (see Figure 3), on the side of which are inscribed the words “still in the early days of mining during the Southern Tang Dynasty” from an imperial poem composed by the Qianlong Emperor. This inkstone reveals that the Southern Tang dynasty marked a pivotal moment in the history of dragon-tail inkstones.

Although the Southern Tang existed only briefly in China’s historical timeline, it played a significant role in the development of dragon-tail inkstones, serving as the eve



FIGURE 3. Gold-star Longwei Inkstone with Sidewall Inscription from the Song Dynasty, Collection of National Palace Museum, Taipei

of their golden age.

With the fall of the Southern Tang Dynasty, the mining of Longwei stone came to a temporary halt. It was not until the Jingyu era of the Northern Song Dynasty that Qian Xianzhi, a scholar-official of She Prefecture, led an expedition to locate the Longwei stone quarry once operated by Li Shaowei, the Southern Tang Dynasty's official in charge of inkstone production. This marked the beginning of Longwei inkstone mining during the Song Dynasty. The *Treatise on She Inkstones* mentions some specific details of this mining operation: "During the Jingyu era, Qian Xianzhi, a scholar-official, was stationed in She and first located the site where Li Shaowei had once quarried the stone. The area was originally a large stream, and the water was often too deep for workers to enter. Qian Xianzhi diverted the stream to flow through a different channel, and only then was it possible to extract the stone"[8].

Following this, during the Jiayou era, County Magistrate Diao Qiu also organized quarrying operations in the vicinity of Longwei Mountain, successively discovering renowned quarries such as Shuixian, Shuijue, and Lukuang. Following these documented mining operations, a large number of high-quality Longwei inkstone stones came into circulation. Consequently, during the Northern Song Dynasty, the quality of Longwei stone rivaled that of the Southern Tang Dynasty, and it was highly prized by literati. Eminent scholars such as Su Dongpo, Ouyang Xiu, Huang Tingjian, and Cai Xiang all composed poetry and prose in its praise, with Huang Tingjian's "Journey to Inkstone Mountain" serving as a representative example. A series of works, catalogs, and literary pieces on Longwei inkstones subsequently emerged. The Shezhou region also became a national center for inkstone production, and Longwei inkstones entered their golden age of development.

During the reign of Emperor Lizong of the Southern Song Dynasty, Xie Ji served as the prefect of Huizhou and continued to extract Longwei stone from the old quarries for tribute. While the story of the hunter Ye serves as the traditional origin myth of Longwei stone, it should be critically viewed as a literary trope common in Tang and Song "discovery narratives," where a rustic figure serendipitously

finds a hidden treasure to validate its "natural" excellence. The *Tongya* records: "When Xie Ji served as prefect of Huizhou during the Song Dynasty, he once extracted stone from the old quarries to present to Emperor Lizong. At first, there were often five-colored clouds above the quarry, resembling a brocaded quilt. The prefect issued an edict to have the stone quarried where the clouds covered, and they obtained fine stone with white patterns winding around both sides, resembling two dragons. Once it was carved into an inkstone, the cloud-like patterns were no longer visible"[9].

The stone-quarrying expedition organized by Xie Ji was imbued with a touch of mystery; the emergence of the Longwei stone was accompanied by "five-colored clouds," suggesting just how precious a high-quality piece of Longwei stone was in people's minds at the time. Beyond the "mysterious" description, this account functions as a political legitimization device, suggesting that the successful extraction of tribute stone was a manifestation of Heaven's favor and the official's virtue. Analyzing these texts as cultural constructs rather than purely factual records reveals how the prestige of Longwei inkstones was actively manufactured through elite discourse.

As Zhao Xigu remarked, "Though none remain today, should one be found, its value would be no less than that of the original Longwei quarry." [10] By the Southern Song Dynasty, the depletion of high-quality geological strata in the primary Longwei quarries led to a significant increase in the scarcity of premium raw materials. Contemporary accounts such as those by Zhao Xigu reflect this acute shortage, noting that the market value of authentic Longwei stone escalated exponentially as supply failed to meet the sustained demand from the expanding scholar-official class.

B. CONTROVERSIES REGARDING THE STATUS OF THE DRAGON-TAIL INKSTONE IN THE SONG DYNASTY

Since the Song Dynasty, debates over which type of inkstone is superior have been particularly intense. Zhang Bangji provides insight into the situation at the time: "Among fine inkstones, none surpasses the stone from Duanxi; yet when Yan You of the Tang Dynasty compiled his *Record of Inkstones*, he ranked the red-veined stone from Heishan in Qingzhou as the finest, while Mi Fu, known as Yuan Zhang, considered the rock from Ge Xian Gong Mountain in Fangcheng, Tangzhou, to be the finest"[11]. Zhang Bangji was one of the first scholars to rank inkstone materials. A review of other ancient Song dynasty texts reveals an interesting phenomenon: the focal point of debates regarding which inkstone ranks highest primarily centered on Duan inkstones and Longwei inkstones.

Zhao Xigu, in the opening of *Dongtian Qinglu Ji: Discourse on Ancient Inkstones*, set the tone: "The Discussion on Ancient Inkstones mentions only Duan and She, without referring to others, as all other stones fall short of Duan and She"[12]. Some sources place Duan stone directly ahead of Longwei stone; the *Continuation of the Book of the Marvels of Nature* records: "The Inkstone Catalog lists over forty

varieties of inkstones from across the realm, ranking the red-veined stone from Qingzhou first, the stone from Fuke Mountain in Duanzhou second, and the Longwei stone from Shezhou third"[13]. Chen Shu of the Southern Song Dynasty wrote in *Fu Xuan Ye Lu*: "Among inkstones, Duanxi is the finest, followed by Taohe, then ancient She, and finally Jianxi"[14].

There are also accounts that use Longwei Stone to highlight the status of Duan Stone. For instance, Su Yijian wrote in *The Four Treatises on the Scholar's Studio*: "Today, there is a stone in the mountains of Shezhou, commonly known as Longwei Stone; when crafted by artisans, it is second only to Duan"[15]. Records of Summer Retreat states: "Ouyang Xiu, in his *Treatise on Inkstones*, ranked She stone above Duan stone; most people in the world did not agree with this, but this was simply a matter of differing perspectives"[16]. Ouyang Xiu's *Treatise on Inkstones* states: "For Duanxi, the Northern Cliff variety is considered superior; for Longwei, the Deep Stream variety is considered superior. When comparing their merits, Longwei far surpasses Duanxi"[17]. Hu Zai of the Southern Song Dynasty wrote in *Miscellaneous Talks of the Fisherman in Hui River*: "The most admirable quality of She stone is that whenever ink is used up, rinsing it with water causes the ink to dissolve completely, leaving no residue behind; in this respect, it surpasses Duan stone"[18].

There are also impartial observers who have offered a relatively objective assessment of the rivalry between Longwei inkstones and Duan inkstones: "Longwei is like a reclusive scholar of integrity, occasionally displaying sharp wit; Duan stone is like a refined scholar, radiating a luminous and lustrous quality throughout"[19]. It should be noted that a small number of literati supported other types of inkstones as the finest, which is an indispensable part of the competition among inkstones for supremacy. In contemporary research on the history of ancient art, some scholars have also focused on the debates among Song Dynasty literati regarding inkstones or their materials[20]. This has deepened our understanding of inkstone studies.

However, for the purposes of this article, it is not actually important which inkstone ultimately claimed the title of "the finest in the world" in the minds of literati. What is clear, however, is that the Longwei inkstone had already become the "focus of public discourse" within Song Dynasty literati circles, with discussions about it arising one after another, covering various aspects such as characteristics, craftsmanship, authentication, and place of origin. It can be said that the development of the Longwei inkstone reached new heights during the Song Dynasty.

C. THE DISSEMINATION OF KNOWLEDGE REGARDING SONG DYNASTY DRAGON-TAIL INKSTONES

Although Longwei inkstones originated in the Tang Dynasty, there are no historical records documenting their practical applications or theoretical knowledge until the Song Dynasty. It was not until the Song Dynasty that material

prosperity began to merge with scientific knowledge, and the literati class dedicated themselves to establishing an academic research paradigm for the arts. Consequently, a number of works on inkstone materials emerged.

Among these, the three most representative works—*The Compendium of Shezhou Inkstones*, *Discourse on She Inkstones*, and *Discourse on Distinguishing She Stone*. The *Shezhou Inkstone Compendium* consists of one volume; the author's name is not recorded, though the colophon at the end reads: "The Ninth Day of the Ninth Month in the Bingwu Year of the Zhiping era of the Great Song Dynasty." Chen Zhen-sun's *Zhi Zhai Shu Lu Jie Ti* records: "She Inkstone Illustrated Catalog, one volume, authored by Tang Ji, Deputy Director of the Imperial Secretariat and Magistrate of Wuyuan County, in the year Bingwu of the Zhiping era." Based on this, the editors of the *Siku Quanshu* attributed the work to Tang Ji.

However, the entry for "Shuizhuang Pit" in the text states, "Discovered during the Jingyu era; now abandoned for forty years," indicating that additions were made after that time. In this volume, *Zhi Zhai Shu Lu Jie Ti* refers to it as *Illustrated Catalog of She Inkstones*; Mi Fu called it *Illustrations of Shezhou Inkstones*; and Luo Yuan's *Chronicles of Xin'an* refers to it as *Illustrated Catalog of Wuyuan Inkstones*. It is evident that the original work contained illustrations; however, these have been lost, leaving only the text.

This book documents the methods of quarrying and crafting Longwei inkstones, their classification and appreciation, as well as the artisans who produced them and the transportation routes to the quarries. It provides modern scholars with a wealth of information on Song Dynasty She inkstones and offers insight into the cultural climate of the time. Most books on She inkstones since the Song Dynasty have drawn upon this work[21].

The *Treatise on She Inkstones* (one volume), accompanied by *A Discourse on Distinguishing She Inkstones* (one volume), are both anonymous. A colophon by Hong Mai appears at the end, stating: "My elder brother Jingbo devoted a year to researching She inkstones... Having already published Su Shi's *Catalog of Scholars' Studio Supplies* in the Four Treasures Hall, he separately engraved three *Treatises on Inkstones*. He sent the books to me, asking me to compose a preface for them." Furthermore, the text contains accounts of events from the Jingyu era, indicating that the work was completed no earlier than the reign of Emperor Renzong of the Northern Song Dynasty. This book describes the various types of inkstone stone, mining sites, as well as mountain ranges and roads in Shezhou. Although the book is not very long, it holds significant documentary value as one of the earliest monographs dedicated to the Longwei inkstone[22].

In addition, works such as Su Yijian's *Four Treatises on the Scholar's Studio*, Ouyang Xiu's *Treatise on Inkstones*, Mi Fu's *History of Inkstones*, Gao Sishun's *Notes on Inkstones*, Li Zhiyan's *Treatise on Inkstones*, Du Wan's **Spectrum of Yunlin Stones*, and Zhao Xigu's *Collected*

Records of the Pure Realm all contain discussions regarding Longwei stone or Longwei inkstones. The emergence of dedicated monographs indicates that the Song Dynasty's interest in Longwei inkstones had transcended mere curiosity, evolving into a conscious and specialized field of study.

III. PRODUCTION METHODS OF DRAGON-TAIL INKSTONES IN THE SONG DYNASTY

A. IMPERIAL INKSTONES: PRODUCTION MANAGED BY THE GOVERNMENT

During the Song Dynasty, Duanzhou presented Duan inkstones as tribute, a fact attested to by ancient texts. The renowned statesman Bao Zheng once served as the prefect of Duanzhou; an anecdote illustrating his integrity reveals that Duan inkstones were indeed tribute items at the time: "When he was transferred to serve as prefect of Duanzhou, the prefecture was required to pay an annual tribute of inkstones. The previous prefect had increased the tribute by dozens of times to bestow upon influential officials. The official ordered that production be limited to the required tribute amount, and at the end of his term, he did not take a single inkstone home." [23]

Additionally, Mi Fu explicitly states in *The History of Inkstones* that Duan inkstones served as tribute items during the Song Dynasty. The Longwei inkstone, which stands on par with it, is no exception; however, due to the limited production of high-quality Longwei stone during the Northern and Southern Song dynasties, stone suitable for inkstone making was even rarer. The *Discourse on She Inkstones* describes it as "within three feet, there are only a few inches of material suitable for an inkstone—much like jade within a rough stone" [24]. Evaluations of Longwei stone in ancient texts were also largely based on criteria for inkstone production, such as ink-releasing performance, size, and texture defects. According to modern research findings, the amount of Longwei stone that can ultimately be crafted into inkstones is actually quite limited. It must simultaneously meet multiple criteria, including the absence of cleavage or jointing planes with oblique surfaces; a certain thickness in the shale layering; a Mohs hardness between 3 and 4; a mineral composition consisting of approximately 20% to 50% silica content after removing clay; a mineral grain size of less than 0.01 millimeters; a tightly cemented texture that is non-absorbent, impermeable, and minimally affected by weathering, etc [25].

For various reasons, records regarding Song Dynasty Longwei inkstones as tribute items are scarce, but traces of them can still be found. As evidenced by the account of Qian Xianzhi, a Song Dynasty scholar, who altered the watercourse to extract stone [26], although the relevant records abruptly end after he discovered the fine stone, when combined with the Northern Song government's policies on the management of materials for arts and crafts [27], high-quality Longwei stone was undoubtedly subject to official oversight. Furthermore, in regions with specialized handicraft production, special agencies were often established

locally to oversee manufacturing, with dedicated personnel assigned to manage them.

As early as the Southern Tang period, Wuyuan already had the position of "Inkstone Official." Although the Wuyuan County Annals merely classifies Longwei inkstones as a "local product" and does not record their tribute status, according to Huang Tingjian's *Journey to Inkstone Mountain*: "Ever since they were presented as tribute during the Yuanfeng era, people have sought them without ceasing to this day." it is evident that Longwei inkstones were already being offered as tribute during the Yuanyou era of the Northern Song Dynasty and were in the midst of a boom, with demand far outstripping supply.

Furthermore, according to Tongya: "When Xie Ji served as Prefect of Huizhou during the Song Dynasty, he once extracted stone from the Old Quarry to present as tribute to Emperor Lizong" [28]. This indicates that even by the Southern Song Dynasty, high-quality Longwei stone continued to be presented as tribute to the imperial court, and such premium inkstone materials were all mined under the supervision of local officials.

Having established that Longwei inkstones held the status of tribute items during the Song Dynasty, we can now attempt to reconstruct the specific production model of Longwei inkstones under the management of Song Dynasty government authorities. From a broader perspective, a corresponding management system for the design of goods had already taken shape during the Northern Song Dynasty. The production of arts and crafts using premium materials was typically managed by government-run workshops, which were required to adhere to the "Fashi" (official standards) and "Guanyang" (official models) established by the government.

Song Dynasty documents preserve records regarding production, project management, and implementation details, collectively referred to as "Fashi." To ensure consistency in the appearance and style of products, the government needed to establish clear specifications regarding material selection, form design, decorative patterns, assembly methods, and hierarchical classifications. These standardized models uniformly established by the government were referred to as "official patterns" [29]. In other words, the central government provided specific guidelines regarding material selection, design styles, assembly methods, production management, and implementation details during the design and production phases of these items.

Turning to the specific object of the inkstone, historical records also mention "official styles" associated with inkstones. Ouyang Xiu was the first to note a particular style of official inkstone among the Longwei inkstones of the Southern Tang period: "Each year, a certain number of inkstones were produced for official use. Those that were square, flat, and shallow were the official inkstones of the Southern Tang. The stone used was of exceptional quality, and their craftsmanship did not resemble the extravagance or crudeness of modern artisans" [30].



FIGURE 4. Longwei Inkstone in the shape of Chinese character 'wind'

Based on this, it can be inferred that by that time, there were already established standards for the design and material selection of official inkstones. In the "Sample Models" section of *The History of Inkstones*, Mi Fu recorded various styles of official inkstones.

First among them is a design from the early Northern Song Dynasty known as the "Wind Character" inkstone: "By the time of our dynasty, the design had evolved into one with a domed top, a slender waist, and a broad edge resembling a battle-axe. Inkstones from before the reign of Emperor Renzong were mostly made in this style, though this became less common later on. Pu Chuanzheng, a scholar of the Zizheng Hall, collected an inkstone used by Emperor Zhenzong, which shared the same form as the 'Fengchi' inkstone bestowed by Emperor Renzong upon Li Gongzhao, the Prince Consort. To this day, the Imperial Workshop still produces many of this type. Since the founding of the dynasty, such inkstones have often been found in the homes of high-ranking officials"[31]. (See Figure 4)

There is also a design style for "Historical Bureau Official Inkstones": "Before Emperor Renzong, the inkstones bestowed upon officials of the Historical Bureau were all made of Duanxi stone, thin and uniform, narrow at the top and wide at the bottom, steep and straight without protrusions, with a flat base, still resembling the Fengchi inkstone; some had floral carvings on the four sides, with fish or turtles in the center"[32]. Another type of inkstone exemplifies the contemporary official design's pursuit of a sense of solidity: "By the end of the Jiayou era, inkstones had grown as thick as a thumb, with a highly convex center, intended to convey solidity, though their appearance was not in keeping with ancient styles"[33].

From the above examples, one can envision the form of official inkstones during the Song Dynasty.

In summary, we can gain a general understanding of the Song Dynasty government's management model regarding the procurement of raw materials and the design of Longwei inkstones. In terms of materials, the government organized and oversaw the mining and collection of Longwei stone, thereby exercising control over resources; in terms of pro-

duction, the process adhered to "official specifications," standardizing forms and design styles.

Regrettably, no relevant historical texts explicitly indicate which specific designs of Song Dynasty Longwei inkstones were "official productions." However, considering the records of folk styles found in Song Dynasty writings, government-led production must have exerted a certain influence on folk designs. Perhaps we can find relevant clues by examining the folk production of Song Dynasty Longwei inkstones.

B. COMMERCIAL INKSTONES: PRODUCED BY FOLK INKSTONE WORKSHOPS

It is important to distinguish that the "dragon-tail" inkstone material—which scholars have praised as being "like jade in its rough form"—belongs to the category of top-grade dragon-tail stone. Naturally, it is exceptionally rare and was mostly owned by the upper classes and subject to official control. At the same time, however, folk artisans still had opportunities to obtain high-quality raw materials.

Song Dynasty texts record: "Goods come from the people, money comes from the government. Taxes and levies typically account for four-tenths of the national revenue, while grain procurement accounts for six-tenths. As for items for imperial use and daily necessities, whatever one wishes to obtain must first be purchased with money. If the burden on the people is always heavy while that on the government is always light, how can the state's resources remain sufficient"[34].

Based on the information provided in this passage, it appears that in the Song Dynasty, government-run handicraft industries adopted practices such as "joint purchasing" and "joint trading" when procuring materials. This suggests that the government's monopoly on high-quality materials had somewhat eased, allowing private inkstone makers to obtain the raw materials they needed through market channels. Furthermore, official stone-quarrying operations still occasionally relied on private labor.

The Shezhou Inkstone Manual records: "Luowen Pit, located east of Meizi Pit, was mined during the Li family's tenure. The land formerly belonged to Wang Rengao, whose family has since died out; it was jointly acquired by eight inkstone artisans led by Dai Yi, who pay an annual mountain tax of thirty taels of gold"[35]. During the quarrying process, artisans would also discover ordinary Longwei stone with minor flaws and carve them into inkstones.

Huang Tingjian once composed a poem describing the lives of residents near the Longwei inkstone mountain during the Song Dynasty: "Over a hundred households dwell at the foot of the mountain; the Bao, Dai, and Wang families are neighbors. Chiseling and polishing, they shape the stone as if the sun were rising; carving and engraving, they seek the very marrow of the stone"[36]. These lines of poetry paint a vivid picture of the inkstone-making cluster at that time, where craftsmen lived side by side, forming a stone-processing settlement of over a hundred households.

The inkstones they produced were sold as commodities or offered as tribute, serving as their means of livelihood. The background of Huang Tingjian's "Journey to Yanshan" was a court-commissioned mission to procure inkstones. It can be inferred that the Longwei inkstone material was not entirely monopolized by the government at that time; the issue lay in the quality of the material, and some inkstones were still designated for imperial tribute. During my visit to Yanshan Village in Wuyuan, I observed that even today, most residents still have piles of inkstone stone waiting to be carved in front of their homes (see Figure 5). Upon inquiry, I learned that this remains an important source of income for the local residents.

Based on the poems and writings of Huang Tingjian, a significant portion of the inkstone workshops in Wuyuan during the Song Dynasty operated as family-run businesses. Tang Ji's *Shizhou Yansu* (Chronicle of Shezhou Inkstones) records information on some of the artisans of that time: County seat: three surnames, four households, eleven people: Liu Da, given name Fucheng; the third; the fourth; the fifth; the sixth. Zhou Si, given name Quan, age seventy; Zhou Er, given name Jincheng; Zhou Xiaosi; Zhou San, given name Jinchang. Liu Er, no official title. Zhu San, given name Ming. Ling Shu Li: one surname, three households, six people: Dai Er, given name Yihe; the third; the fifth; the sixth. Dai Da, given name Wenzong. Dai Si, given name Yicheng. Jikou, Darongli: three surnames, four people: Fang Qi, given name Shouzong; son, Qingzi. Hu San, given name Songxing. Wang Da, known as Wang Wang'er[37].

In addition to family-based organizational forms, Song-dynasty notebooks also mention certain production organizations involving employment relationships: "The prominent Wang clan of She, while staying in the mountains one night, was suddenly struck by a flood and took refuge in the hut of a villager. The villager was an inkstone craftsman"[38]. Cai Xiang also discussed private inkstone workshops in the Duanzhou region: "According to the Records of Inkstones, Cui Shengzhi of Duanzhou lived near Mount Duan'yan. He employed a hundred stonecutters, producing thousands of inkstones annually for decades; none could match Cui's craftsmanship"[39]. This clearly demonstrates the flourishing development of the folk inkstone-making industry around the renowned inkstone quarries at that time.

In the actual production process at private inkstone workshops, each step was typically carried out independently by a single craftsman, relying heavily on the artisan's artistic sensibility and technical mastery. It is worth noting that while the personal aesthetic preferences and manufacturing experience of private artisans influenced the final appearance of the inkstone, in the actual production process, these artisans were inevitably influenced by the "official style." As Ouyang Xiu noted, the "square and flat" official style was already widely adopted in Longwei inkstones during the Southern Tang period.

Combining this with the earlier analysis of the mainstream form of Song Dynasty Longwei inkstones—the flat,

straight style—one can consider the connection between the two: as the urban-rural economic structure evolved and private manufacturing flourished during the Song Dynasty, the government's handicraft system gradually formed a deep interaction with the folk production network. This synergy was manifested through specific mechanisms: the government often outsourced the labor-intensive initial quarrying to local village communities while retaining control over the distribution of high-quality "official material."

In return, folk workshops gained access to secondary-grade stones and standardized design templates ("official patterns"), which they adapted for the commercial market. This "state-community synergy" was not merely parallel production but a functional interpenetration where official aesthetic standards provided a "design language" for private artisans, while the folk sector provided the flexible labor force necessary for large-scale imperial tribute extraction.

This synergy is evidenced by the "official-civilian profit-sharing" mechanism: historical records indicate that local officials often commissioned private workshops to fulfill tribute quotas when imperial workshops faced resource shortages, while private artisans, in exchange for access to state-controlled premium quarries, were required to adopt the "Fashi" (official standards) in their own commercial production. This bidirectional flow ensured that officially sanctioned designs (such as the "Wind Character" style) became market standards, while private technical innovations in tool-making were simultaneously absorbed into state manufacturing protocols.

It is worth noting that although the social hierarchy still constrained production forms, a breakthrough in integration had already emerged at the level of artistic expression; some folk inkstone makers even broke through the constraints of ritual norms, giving rise to a phenomenon of "imitation of official styles." The top-down dissemination of styles interacted with bottom-up aesthetic adaptation, ultimately selecting design patterns with universal appeal and facilitating the widespread dissemination of standardized production styles.

Archaeological findings indicate that folk-produced Longwei inkstones from the Song Dynasty exhibited the early stages of "lineage identification" (zhao hao), a pre-modern precursor to brand consciousness. A dragontail inkstone with a "copper-hand" shape and an inscription was once unearthed from a Song Dynasty tomb in Baoying, Jiangsu (see Figure 6). The back of the inkstone bears a shallow vertical inscription reading "Wushui Tongjia Dragon-tail Fine Inkstone," and its surface is smooth and delicate[40]. In 1974, a Song-dynasty tomb in Xinkou Town, Sanyuan District, Fujian, yielded a "chaoshou"-style Longwei inkstone with a vertical, incised line of cursive script in the center of its base reading: "Longwei Fine-Pattern Inkstone of the Liu Family from Wushui" (see Fig. 7).

In addition, among the items in circulation, there are even more Song Dynasty dragontail inkstones inscribed with the craftsman's surname. Aside from the inscriptions on the



FIGURE 5. Stacked Stone Stock

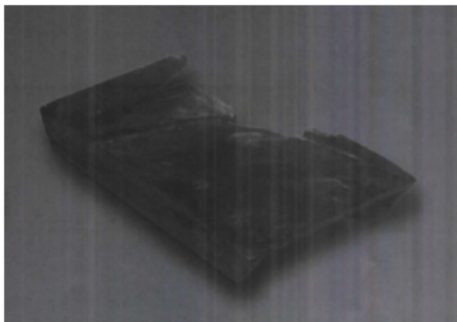


FIGURE 6. Inscribed Longwei Inkstone with "Wushui Tongjia Longwei Xi Yanzi" Mark



FIGURE 7. Inscribed Longwei Inkstone with "Wushui Liu Jia Longwei Xi Yang Yanzi" Mark

two archaeologically excavated dragon-tail inkstones, other craftsman's inscriptions he has identified include: " 'Wushui Liu Family Longwei Fine-Pattern Inkstone,' 'Wushui Liu Family Longwei Fine Inkstone,' 'Wushui Liu Family [character] Longwei Fine-Pattern Inkstone,' 'Wushui Liu Family Longwei Inkstone,' 'Wushan Li Family Fine Inkstone,' and 'Wushui Lan Family Fine Stone Inkstone'[41]. Such inscriptions serve not only to indicate which workshop produced the inkstone but also carry a distinct promotional quality.

In the pre-modern context of the Song Dynasty, this "brand awareness" should be understood as a proto-branding strategy. Unlike modern intangible brand equity, it functioned as a "signature of quality assurance" rooted in the reputation of specific artisan lineages. By inscribing their surnames and the quarry origin (e.g., "Longwei Fine Stone"), workshops like the Liu family created a recognizable marker that distinguished their craftsmanship in an increasingly competitive urban market. This identification allowed literati consumers to seek out specific makers, effectively transitioning the inkstone from a generic commodity to a "signed" artisanal product with commercial value.

It can be said that while the production of inkstones in the Song Dynasty appeared to be driven by the autonomy

of artisans, exhibiting commercial characteristics and brand awareness, at its core, it remained constrained by official standards. However, in the case of Longwei inkstones, these "constraints" did not hinder their development; on the contrary, they allowed them to flourish and shine. While official inkstone production used institutional frameworks to regulate materiality, private workshops employed practical innovation to revitalize it. The interplay between these two forces propelled the craftsmanship of Longwei inkstones through a dynamic evolution between standardization and individualization. The dual structure reflected here represents not only a division in technical and economic forms but also a profound projection of the social tension arising from "official-civilian interaction" in the Song Dynasty onto the realm of material production. The establishment of trends and the dissemination of styles relied on the interaction between official handicrafts and folk production[42].

As a premium variety among Song Dynasty inkstones, the craftsmanship of Longwei inkstones not only demonstrates technical excellence but also reflects the dual drivers of social division of labor and cultural demand. Within the Song Dynasty's handicraft system, the production of Longwei inkstones exhibited a dual structure in

which government-run workshops coexisted with private workshops. While each possessed distinct characteristics in terms of resource acquisition, production processes, and functional positioning, they also interpenetrated one another in meeting the demands of literati and facilitating market circulation[43].

IV. THE LEGACY OF SONG DYNASTY DRAGON-TAIL INKSTONES

A. DECLINE AND CHAOS

In terms of ancient traditions, later generations continued to follow the “Song Dynasty inkstone model,” including the Song Dynasty’s methods of appraising inkstones and the styles popular among the Song people. Moreover, people still regarded Duan and She inkstones as the finest items in a scholar’s study and continued to seek out high-quality materials for their production.

The Wuyuan County Annals records: “Since the turmoil of the Yuan dynasty, the craft of inkstone-making has long been neglected; carvers have grown increasingly unskilled, and those capable of identifying suitable materials are particularly scarce”[44]. By the Yuan Dynasty, stone quarrying and inkstone crafting on Yanshan had become increasingly rare, leading to a decline in craftsmanship and the contraction of the inkstone industry, with widespread instances of counterfeiting.

The Yuan scholar Jiang Guangqi criticized local artisans for passing off inferior materials as genuine in their inkstone production. Jiang Guangqi criticized this chaos as follows: “They extract stones from other mountains—stubborn and dark, slippery and dry, coarse and rough with thread-like patterns—and pass them off as coming from the old quarries; sometimes they even command high prices, while the genuine stones remain unsold. The silk-veined stone of Sanqu is black and hard; that of the Southern Route is dark and lustrous; that of Miantan is light and slippery; that of Jialu is red and dry; and that of Shuichi Mountain is dry and coarse—none are suitable for brush and ink, yet those who obtain them treasure them as if they were treasures. My nephew Ji Zhou once took a stone inkstone with him on a boat trip; I found this quite strange, so I said to him: “When you were twenty, you traveled south to Jiaozhou and Guangdong, and north across the Yi River, seeking influential patrons, yet you found none who suited you. “Are you now intending to carry genuine materials from the old quarry, only to suffer the humiliation of being unable to sell them? Or are you intending to carry fake stones to deceive others”[45].

Similar phenomena had already begun to emerge in the Northern Song Dynasty. The Song-era text *Discourse on Distinguishing She Stone* mentions that Qimen County, adjacent to Wuyuan, produced a type of stone with distinct patterns that closely resembled Wuyuan’s mudstone in appearance, capable of passing as the genuine article and requiring careful discernment[46]. However, Song-dynasty notes do not mention specific instances of forgery.

The forgery practices of Yuan-dynasty craftsmen may have stemmed from unavoidable circumstances: by the late Southern Song Dynasty, high-quality Longwei stone had already become scarce, and its mining had virtually ceased during the Yuan Dynasty. The decline was not a simple teleological result of resource depletion, but rather a systemic crisis involving the collapse of the “official-folk” synergy. While official mining theoretically continued, the loss of skilled “Inkstone Officials” who could identify premium veins led to a “skill-resource mismatch.” Furthermore, unlike the porcelain industry which pivoted to new glazes and designs, the Longwei craft remained tethered to the unique geological properties of the old quarries. When these specific veins were exhausted, the inherent “material-centric” nature of the craft prevented a successful transition to alternative stones, as the literati’s appraisal system remained strictly bound to the historical prestige of the Longwei quarry.

Jiang Guangqi remarked: “What we obtain today are all remnants from past chiseling and carving, carried by the torrent several li downstream. Whenever the spring floodwaters first recede, workers follow the current to gather these broken shards and fragments; those measuring even five inches are exceedingly rare”[47]. In any case, the chaos in inkstone production—where inferior materials were passed off as superior and fakes were sold as genuine—should be attributed to the scarcity of Longwei stone resources.

Yet even in such turbulent times, some remained steadfast in their search for Longwei stone. In his *Xie’s Study of Inkstones*, the Qing dynasty scholar Xie Shenxiu recorded the following account: In the 14th year of the Zhi Yuan era of the Yuan dynasty, Wang Yueshan, the magistrate of Wuyuan County at the time, organized laborers from several villages to search for new Longwei inkstone stone. However, this large-scale quarrying operation ultimately resulted in “the stone being exhausted and the mountain collapsing, killing several people.” Xie Shenxiu also used this story to lament the difficulty of quarrying stone at that time.

The Preface to *Sending My Nephew Ji Zhou to Sell Inkstones* may well be the source of the extensive references cited in Xie’s *Compendium of Inkstones*. In his text, Jiang Guangqi also recounts the story of Magistrate Wang Yueshan organizing the stone quarrying. A review of the entire text reveals that, in addition to the quarrying accident involving Wang Yueshan, another inkstone mine collapse occurred during the Yuan Dynasty: “In the year Xinsi of the Zhi Yuan era, the mine collapsed again and the stone was exhausted; at that time, only the Jinzhu area still had some large stones. Now, on the night of the 28th day of the 10th month of the 5th year of the Zhi Yuan era, the sound of the collapse was like thunder; even the roof tiles of houses across the stream shook, and birds and beasts were startled. Several years ago, workers told me that the stone in the Jinzhu area had been completely quarried, but I did not believe them; now it has indeed come to pass. To have witnessed this event twice in sixty years is truly cause

for lamentation”[48].

The story of the Longwei inkstone in the Yuan Dynasty ultimately ended in tragedy. During the Ming and Qing dynasties, the Longwei inkstone gradually fell into decline. The Wuyuan County Annals records a craftsman named Ye Rang, whose Longwei inkstones were renowned for their “exquisite simplicity.” The text describes him as follows: “He possessed a natural gift for ingenuity; his creations were often original and of unparalleled refinement. He discovered a rare stone in a pile of debris in Yicun; to this day, all masters follow his carving techniques, yet few possess the discernment of Ye Rang. In his later years, he carved white stone Buddha statues and worshipped them devoutly, living to the age of ninety-two. Having been lame in one leg since childhood, people called him ‘the Lame Old Man.’”[49]

Aside from this artisan’s place in history, there are no explicit historical records regarding official mining activities related to Longwei stone during the Ming Dynasty. The practice of forging inkstones during the Ming Dynasty was more complex than in previous eras. Following the trend of revering antiquity—“caressing ancient bronze vessels and witnessing the Shang and Zhou dynasties firsthand”—Ming people’s pretentious admiration for ancient inkstones surpassed that of earlier generations. To cater to the tastes of the literati, new forgery techniques emerged in the folk sector, prompting criticism from the scholar Wang Kengtang: “Today’s common folk treasure ancient inkstones upon hearing they are such, yet disregard new stones. This has led profit-seeking individuals to take ordinary stones and roughly carve them, chipping and carving them to create imperfections, carving old inscriptions on the reverse side, smoking them with bundles of grass to alter their color, then exposing them to the scorching sun until they are parched to the extreme, soaking them in ink, and letting them age over the years so that the stains cannot be washed away, and selling them for exorbitant prices”[50].

Wang also elaborated on his views regarding ancient inkstones, arguing that their value lies not merely in their age but in the exquisite craftsmanship. As for the inkstone material itself, he maintained that there is no inherent distinction between new and old; the key lies in the quality of the stone, rather than the inkstone’s age or whether it is an antique. The original text reads: “Antiquities are valued because even if modern artisans were to employ all their skills, they could not replicate even a fraction of their quality—as is the case with ancient bronze ritual vessels, imperial kiln wares, Ge Kiln wares, and similar artifacts. As for inkstone stone, it has long been formed in the mountains; while the time of extraction may vary, the stone itself has no concept of new or old. One should therefore judge the beauty or ugliness of the material, not the newness or antiquity of the inkstone”[51].

Records of Longwei stone mining during the Qing Dynasty are even scarcer; only the essay *Ji Yan* by Cheng Yaotian, a scholar from She County, mentions: “In the fifth month of the summer of the Dingyou year of the

Qianlong era, when I returned to She from the capital, Longwei stone was being mined to carve inkstones for tribute offerings. Stones that did not meet the standard specifications were carved by the artisans themselves and sold to the public.”[52]

The above passage indirectly indicates that, although it is unclear how many times Longwei inkstones were mined during the Ming and Qing dynasties, related production activities were still taking place among the common people at that time. The *Compilation and Examination of She Inkstones* provides even greater detail: “Previously, Grand Censor Sun entrusted the matter to former Prefect Yang, with me serving as his assistant; subsequently, Grand Censor Chen and Provincial Inspector Liu both issued orders for me to take sole charge. Over the course of several campaigns, all ancient-style inkstones held in the collections of gentry families, as well as old-mine stones preserved by residents of the inkstone mountains, were acquired at high prices” [53].

By the Qing Dynasty, the number of Duan stone inkstone quarries in Duanzhou had exceeded 70[54], far outnumbering the Longwei inkstone quarries in Wuyuan. The Qing scholar Shi Runzhang summarized the rise and fall of the Longwei inkstone’s reputation: “In the past, Emperor Li Houzhu used paper from the Chengxin Hall, ink by Li Tinggui, and Longwei inkstones; these three were the finest in the world and were highly prized at the time. Duan stone had not yet come to prominence; since the Song dynasty, Duan stone has been in vogue, and today’s literati no longer speak of Longwei. Longwei is like a reclusive scholar of integrity, occasionally displaying sharp wit; Duan stone is like a refined scholar, possessing a consistently bright and lustrous quality.”[55]

Looking back on the Southern Tang and Song dynasties, there were indeed the two golden ages of the Longwei inkstone.

B. THE CONTINUITY AND EVOLUTION OF INKSTONE-MAKING TECHNIQUES

Some Longwei inkstones from the Yuan, Ming, and Qing dynasties continued to follow the styles of earlier eras, drawing inspiration from the Tang and Song dynasties; many of these inkstones retained Song-dynasty traditions in their forms, craftsmanship, and even design concepts. The influence of the Song dynasty was particularly profound in the continuation of the imperial tribute inkstone style, which remained highly praised and cherished even into the late Ming period.

Wen Zhenheng described the prevailing taste for inkstones at the time: “Inkstones come in various forms and designs. During the Song Dynasty, those presented to the imperial court included styles such as Yutai, Fengchi, Yuhuan, and Yutang. Today, these are known as ‘imperial tribute inkstones,’ and they are held in the highest esteem.” Evidence of designs modeled after Song Dynasty inkstones can also be found in physical artifacts. The Palace Museum in Bei-

jing, the Shanghai Museum, and the Shangrao Museum all house Longwei inkstones from the Ming and Qing dynasties that imitate Song-style designs.

In addition to the rectangular inkstone form—which was popular during the Song Dynasty and persisted throughout the Ming and Qing periods—certain distinctive styles have retained their original forms despite enduring long historical transformations. The late Ming connoisseur Gao Lian praised a “Jade Rabbit Paying Homage to the Center” inkstone carved from dragon-tail stone, stating, “It is as skillfully crafted as if painted; there is no need for uneven surfaces to achieve its likeness—it is truly an artifact from before the Five Dynasties.” This appraisal not only demonstrates Gao Lian’s admiration for the inkstone but also highlights its unique craftsmanship and historical significance.

It is worth noting that by the Qianlong period of the Qing Dynasty, inkstones of this style still existed, indicating that certain Song Dynasty inkstone designs were not only preserved during the Yuan and Ming periods but also entered the Qing Dynasty’s craftsmanship system, becoming objects that were repeatedly imitated and cherished.

In addition to inheriting designs from previous dynasties, the Yuan, Ming, and Qing dynasties each developed distinct artistic sensibilities based on the traditional craftsmanship of Song Dynasty inkstones. Yuan Dynasty stone inkstones were rustic and bold, infused with a strong folk aesthetic. Examples include the “Single Sandal” inkstone, symbolizing a journey taken; the large “Cicada” inkstone, symbolizing nobility; and the “Plow Ox” inkstone, symbolizing a bountiful harvest—all expressing the common people’s longing for a better life after enduring hardships.

The production style of Ming Dynasty dragon-tail inkstones became more diverse. In terms of overall form, they not only retained the simplicity and elegance of Song and Yuan Dynasty inkstones but also began to evolve toward a heavier, more rounded aesthetic, with fuller lines on all four sides, presenting a more stable and majestic visual effect. In terms of carving techniques, Ming Dynasty artisans adorned the surfaces of inkstones with more intricate patterns, and motifs such as landscapes, figures, and flowers began to appear frequently.

Perhaps due to the increasing scarcity of precious inkstone materials, the Qing Dynasty placed even greater emphasis on the form and carving techniques of inkstones compared to the Ming Dynasty. In addition to decorative patterns, they inscribed poems and prose, with carvers striving for meticulous precision and scrupulous attention to detail. The artistic style of Qing Dynasty inkstones tended toward greater complexity and opulence, reflecting the pursuit of artistic refinement among the literati class of the era. In terms of carving techniques, Qing artisans excelled in shallow relief and openwork carving, making the decorations on inkstones more three-dimensional and vivid; many of the carvings on the surface of these inkstones could even stand alone as paintings.

After the Song dynasty, the craftsmanship of dragon-tail inkstones not only inherited the traditional forms of Song-dynasty inkstones but also continued to innovate and evolve in terms of decoration and carving techniques. The inkstone craftsmanship of each era reflects both the inheritance of previous cultural traditions and the exploration of emerging artistic tastes. Yet, whether it be the simplicity and practicality of the Song Dynasty or the diversity in decoration and form during the Yuan, Ming, and Qing periods, the Dragon-Tail Inkstone remains an indispensable topic in the history of ancient Chinese inkstone culture.

C. FROM FUNCTION TO SYMBOL

The Longwei inkstone underwent a “symbolic consolidation” after the Song Dynasty. Although it was already a prized rarity during the Northern Song, its primary identity remained that of a high-performance tool for the scholar’s desk. In the modern era, due to resource exhaustion and the decline of traditional calligraphy, it has completed the transition from a “functional scholastic utility” to a “pure cultural symbol,” where its material value as a heritage object now far outweighs its practical use as an ink-grinding instrument. Today, with the rapid advent of the AI era, it is worth considering how the legacy of the Longwei inkstone can be carried forward in the modern world.

While efforts to protect and pass down the craft known as She inkstone are in full swing, the name “Longwei inkstone”—once synonymous with the highest quality of She inkstones—has gradually faded into obscurity, becoming what we now refer to as a cultural symbol. Due to the scarcity of Longwei stone resources, it has become difficult to reproduce Longwei inkstones in the traditional sense. This phenomenon not only reflects the impact of dwindling inkstone mineral resources on traditional craftsmanship but also mirrors the shift in contemporary perceptions of inkstone culture.

Although various government-led policies for the protection of intangible cultural heritage continue to strengthen the transmission and preservation of traditional She inkstone craftsmanship, the Longwei inkstone faces the fate of gradually fading away as a cultural symbol. Today, people often speak of “She inkstones” but rarely mention “Longwei inkstones.” The disappearance of this cultural symbol signifies not only the fading of the material form of traditional culture but also the gradual dilution of historical experience and spiritual significance. In this era of rapid technological advancement, the replacement and disappearance of cultural symbols often carry an irreversible nature. Although preservation measures under the banner of intangible cultural heritage have allowed She inkstones to survive to this day, the cultural memory embodied by the Longwei inkstone—once the pinnacle of She inkstones—is now facing a historical rupture.

In Yanshan Village, Wuyuan, today, one can still see numerous shops displaying signs and banners bearing the words “Longwei Inkstone” (see Figure 8). The Longwei

Inkstone has become a local symbol of artisanal culture, representing a glorious history, a unique and irreplaceable material, and a craft tradition unique to Wuyuan. Although memories of the Longwei Inkstone have grown faint, they have never truly faded. This reflects the local artisans' sense of regional identity and brand awareness regarding the Longwei Inkstone, and also mirrors the market's recognition of this ancient type of inkstone. It continues to endure in a subtle way within the local culture and the transmission of traditional craftsmanship.

D. AFTER BEING DESIGNATED AS INTANGIBLE CULTURAL HERITAGE

Over the past decade or so, with the continuous development of the market economy and the halo effect of She inkstone craftsmanship being designated as an "Intangible Cultural Heritage," the scale and profitability of the She inkstone industry have seen unprecedented growth. From production volume and the number of employees to sales revenue and profits, the industry has grown several-fold, or even tenfold. For example, during the planned economy era, a single factory employed fewer than 200 workers, whereas today, thousands of people in Wuyuan are engaged in She inkstone production. As market demands have shifted and competition has intensified, carving techniques have also made significant strides. In the past, under the planned economy, due to the uniformity and standardization of production models, workers typically followed fixed procedures, and their income was not closely tied to their individual skill levels. In such an environment, the creativity of artisans was constrained, and they did not necessarily receive compensation proportional to the quality of their work[56].

With the advancement of marketization, She inkstone production gradually shifted from centralized factory production to a more flexible family workshop model: not only did this allow artisans to directly participate in production, sales, and income distribution, but because the quality of their work was closely linked to their income, it greatly stimulated their motivation to continuously refine their skills. The market's relentless pursuit of quality has prompted artisans to pay greater attention to technical details during the production process, striving for perfection, and has driven the overall improvement of technical standards within the industry.

Furthermore, the family-based production model is more conducive to the transmission of related skills. During conversations with several inkstone makers, it became clear that the family workshop model has permeated the local inkstone industry. Among those interviewed, many families have members engaged in inkstone carving, with most practices passed down through generations, preserving traditional techniques.

For example, in one family of three, the father serves as the primary master carver, while his wife and child learn from him; the entire family collaborates on the carving and

production of inkstones. This family-based transmission not only ensures the continuity of the craft but also strengthens the rapport and cooperation among family members. Additionally, some siblings or relatives join forces to produce inkstones, dividing tasks and leveraging their respective strengths—from carving and polishing to sales—with the entire process handled by family members. The family workshop production model not only elevates the level of craftsmanship but also allows family members to gain economic returns through their collective efforts, while preserving the authentic essence of the traditional craft.

Standing in the fields, I can almost picture the bustling scenes of Song Dynasty inkstone workshops. Based on the descriptions of artisan family relationships in Tang Ji's Shezhou Inkstone Compendium, it is fair to say that the current production of She inkstones in Yanshan Village follows the same tradition as the Wuyuan inkstone workshops of the Song Dynasty.

V. CONCLUDING REMARKS

Longwei inkstones originated in the Wuyuan region during the Southern Tang dynasty. From the Song dynasty onward, major historical factors—including the scholar-official economy spurred by the imperial examination system, the spirit of investigating things (ge-wu) inspired by Neo-Confucianism, and the sensitivity to materials cultivated by the culture of stone appreciation—propelled Longwei inkstones to their peak of development during the Song dynasty.

Based on a combination of historical records and field research, the production system of Song Dynasty Longwei inkstones exhibited a unique "government-folk complementary" structure: the government imposed standardized constraints on form, dimensions, and patterns through "official templates," while folk workshops developed personalized creations in response to the custom orders of literati. Through its inheritance and evolution during the Yuan, Ming, and Qing dynasties, this system laid the foundation for later inkstone styles and reinforced the recognition of Longwei inkstones as a cultural symbol of the Wuyuan region.

In the context of contemporary cultural heritage preservation, the case of Song Dynasty Longwei inkstones offers a historical reference for revitalizing traditional crafts. Its craftsmanship philosophy—that "materials are finite, but inspiration is infinite"—suggests that the transmission of craftsmanship should not stop at technical restoration, but must instead reconstruct the meaningful connection between objects and contemporary life. As industrial production continues to erode the "locality" of handicrafts, how to draw inspiration from the Song artisans' mindset of "contemplating the universe through stone" and reinterpret the dialectical relationship between "human craftsmanship" and "natural craftsmanship" in the digital age remains a question worthy of ongoing exploration.

The Song Dynasty dragon-tail inkstone on display in



FIGURE 8. Advertisement of 'Longwei Inkstone' in Yanshan Village

museums today retains its original stone quality, yet no longer serves the function of grinding ink. The “departure” of function and the “presence” of culture may well be a metaphor for the modern transformation of traditional craftsmanship—when an object is detached from its utilitarian context, only by placing it within a broader cultural narrative can it evoke a resonance of memory that transcends time and space.

AUTHOR CONTRIBUTIONS

SHI JiaJun designed, collected and analyzed the data, and drafted the manuscript. SHI JiaJun conducted the study, critically revised the manuscript for important intellectual content, and gave final approval of the version to be published. SHI JiaJun participated fully in the work, take public responsibility for appropriate portions of the content, and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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