A Critical Review of Viewpoints on the Time of the Origin of Hongqu (Red Yeast Rice)

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Abstract: Through a summary of the results of past research on the time of the origin of *hongqu* (红曲, red yeast rice), a critical review is made of multiple pieces of published evidence supporting the various viewpoints that *hongqu* originated from the Han, Wei, Jin, Tang, or Song dynasties. Based on a newly discovered textual comment by Kong Guangtao 孔广陶 (1832–1890) that rectified the mistake of mis-quoting “red wheat powder in Guazhou” (Guazhou *hongzhi* 瓜州红糍) as “red yeast rice in Guazhou” (Guazhou *hongqu* 瓜州红麹) in *Entry into Learning* (Chuxue ji 初学记), a conclusion can be drawn that the evidence for a Han dynasty origin that has dominated for nearly forty years is not well-grounded, and proposes that Chinese *hongqu* originated in the Tang dynasty (618–907).

Keywords: *hongqu*, time of origin, viewpoints, critical review

Hongqu (红曲, red yeast rice) is a product of the solid state-fermentation of rice with *Monascus* sp. to produce red pigment and a variety of physiologically active substances. It is widely used as a food colorant, in condiment production, rice wine brewing, and biocatalysis. As a precious raw material for medicines and food in traditional Chinese medicine, *hongqu* has a wide range of applications and high development value. With the discovery of the beneficial effects of various bioactive

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substances, such as lovastatin, contained in hongqu on human health, the development of functional hongqu products has attracted great attention in China and abroad.

China is recognized as the country with the earliest and widest use of hongqu. In the past hundred years, scholars in China and abroad have conducted extensive research on the time of the origin of hongqu, with differing dates proposed ranging across the Han, Wei, Jin, Tang, and Song dynasties. Based on the time when such claims were made, these fall into roughly three stages: pre-1984, 1984–2017, and the period from 2017 onwards.

1 Pre-1984 viewpoints

Before 1984, there was relatively little research on the time of the origin of hongqu. The earliest that can be found is that of Fang Xinfang 方心芳 (Fang H. F., 1907–1992), who mentioned in 1958 that “there is another great creation in the Song dynasty, which is the invention of hongqu. . . . It is mentioned by Tao Gu 陶谷 of the early Northern Song dynasty in the section on ‘Delicacies’ (Zhuan xiu men 馔羞门) of his work Records of the Unworldly and the Strange (Qing yi lu 清异录)” (Fang 1958).1 Other works supporting a time of origin dating to the Tang and Song dynasties published subsequently (Fang and Cheng 1978; Chen 1979; Hong 1981) also generally refer to the records of red wine or hongqu in poems and literary works (mainly general cyclopedia [leishu 类书]) of the Tang and Song dynasties, to speculate on the origin of hongqu.

The verses related to hongqu in Tang dynasty poems mainly include: “I am interested in buying hongqu wine, but no one wants to go with me to Cuijing Mansion” by Chu Zai 褚载 (Ye 2002),2 “drinking red wine from a bronze bucket while clapping hands to the bronze bucket song” by Meng Jiao 孟郊 (Yang 2003a),3 and Li He’s 李贺 (2003) “in glass cups, you have wine of thick amber color and dripping pearl red color,”4 leading to the preliminary speculation that hongqu existed in the Tang dynasty.

By the Song dynasty, relevant written references become increasingly specific. For example, Tao Gu’s (2003) Records of the Unworldly and the Strange mentions “boiled meat with hongqu” (红曲煮肉); Hu Zai’s 胡仔 (1968) The Recluse of the Tiao Brook (Tiaoxi yuyin conghua 苕溪渔隐丛话) documents that “the people in regions south of the Yangtze River make red wine, which is unique in color and taste” (江南人家造红酒，色味两绝); Zhuang Chuo’s 庄绰 (2003) Miscellaneous Random Notes (Jilei bian 鸡肋编) reports that “what is brewed by the public and private sectors in regions south of the Yangtze River and central Fujian is hongqu wine. In autumn, they all eat vinasse of hongqu wine, by

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1 “宋朝还有一个伟大的创造是红曲的发明……北宋初陶谷清异录馔羞门提到过。”
2 “有兴欲沽红曲酒, 无人同上翠旌楼。”
3 “铜斗饮红洒，拍手铜斗歌。”
4 “琉璃钟，琥珀浓，小槽酒滴真珠红。”
mixing it with vegetables, fish, and meat but not vinegar;”  
Li Zhiyi’s 李之仪 (2003) Collection of Li Zhiyi’s Poems in Guxi (Guxi jushi ji 姑溪居士集) mentions “a special herb xun seasoned with vinasse of hongqu wine” (红糟荀); Su Shi’s 苏轼 poems include such lines as “last year I presented you a clover plate and poured Fujian hongqu wine of beautiful red color at night” (2003b), and “searched the leftovers for a local delicacy with old friends to find a delicious dish of camel hoof cooked with hongqu vinasse” (2003a). Thus, it appears that in the early Song dynasty, hongqu was used in cuisine and to make wine and prepare food, indicating that its use was commonplace at that time.

Although Hong (1981) notes that red wine was mentioned in A Record of Buddhist Monasteries in Luoyang (Luoyang Qielan ji 洛阳伽蓝记) (Yang 2003b) of the Northern Wei dynasty, at that time he cites it as a piece of evidence supporting his view that “the invention of hongqu may be in the ninth century in the Tang dynasty.”

In summary, before 1984, most people believed that hongqu originated in the Tang dynasty or between the Tang and Song dynasties, with the latter favored by most.

2 Viewpoints from 1984 to 2017

From 1984 to 2017, the view that hongqu originated in the Han dynasty or the Jin dynasty appeared, the former being quite popular.

2.1 The claim of the Han dynasty as the origin

In 1984, Hong (1984, 80) proposed that there was hongqu in the Han dynasty, being the first to quote the “Seven Interpretations” (Qishi 七释) by Wang Can 王粲 from a book entitled Entry into Learning (Encyclopedia) (Chuxue ji 初学记) written during the Tang dynasty (Xu 2003). The text mentions the author’s experience that “during my travels in the Western region, I often needed a place to spend the night and a simple dinner. Once I was served a dish cooked with a red ferment from Kua-chou [Guazhou]. It was soft, smooth, rich and succulent, and seemed to dissolve in the mouth” (Huang 2000, 192). Since Wang Can, author of “Seven Interpretations,” was a famous writer of the Eastern Han dynasty, his reference to “Guazhou hongqu” could be evidence of the existence of hongqu in the Eastern Han dynasty. In 1985, Hu (1985) also mentioned these same lines from Wang’s “Seven Interpretations,” implying that hongqu originated in the Han dynasty. In 1990, Meyer (1990) concluded that “Monascus sp. solid fermented rice has a
long tradition in East Asian countries, dating back to at least the first century CE,”
echoing the claim of a Han dynasty origin. In 1999, Fu (1999) also agreed with the same
view, proposing that “the historical origin of hongqu should be before the Three
Kingdoms era, that is, a Three Kingdoms Viewpoint.”9 With further research, Fu (2000,
pers. comm.) went on to propose at the Shandong Wine Culture Symposium that
hongqu should have originated in the Eastern Han dynasty, that is, an “Eastern Han
Viewpoint.” In March 2000, Xing et al. (2000) deduced from Wang’s “Seven
Interpretations” that “China has a long history of using Monascus sp., and it has been
used to make hongqu since the Han dynasty.”10

Subsequently, many scholars agreed with the “Eastern Han Viewpoint.” Through
textual research on Entry into Learning, the originality and authenticity of the collected
materials in it, and the scholarly status and identity of the editor Xu Jian 徐堅, they
believed that hongqu was used as a seasoning for red rice and fermented bean curd (Xing
et al. 2000; Bao 2001) and mixed rice (Hanai and Zhou 2000; Liushahe 2001). Although
some differences of opinion remained, a mainstream view that hongqu originated from
the Han dynasty formed in China (Xing et al. 2000; Bao 2001; Hanai and Zhou 2000;
Liushahe 2001; Jia and Zhou 2002; Li et al. 2007), and has been quoted by a number of
foreign sources concerning the origin of hongqu (Erdoğan and Azirak 2004; Dikshit and
Tallapragada 2011; Dufossé et al. 2005; Chen et al. 2015). Thus, the view that hongqu
originated in the Han dynasty is now widely recognized internationally.

In 2012, Gao (2012) proposed listing hongqu as an addendum to the famous foods
and beverages of ancient Gansu based on the “Guazhou hongqu” mentioned in Wang’s
“Seven Interpretations,” demonstrating the wide ranging influence of this statement.

2.2 The claim of the Northern Wei dynasty as the origin

Owing to the popularity of the Han dynasty origin viewpoint, researchers on the
history of hongqu strove to identify relevant evidence from the six hundred years from
the Han to the Tang dynasties. Hong (2001) surmised that “red wine” (红酒) recorded
in A Record of Buddhist Monasteries in Luoyang in the Northern Wei dynasty could
possibly be hongqu rice wine (红曲酒), though he also cast doubt on the story in Entry
into Learning due to it being a Tang dynasty book relating something that had
happened in the Han dynasty. At the same time, he also believed that one cannot
presume that there was hongqu rice wine in the Northern Wei dynasty because Jia
Sixie’s 贾思勰 (2003) Essential Techniques for the Peasantry (Qimin yaoshu 齐民要术) of
the Northern Wei dynasty reported various methods of rice wine brewing, without
mentioning hongqu rice wine. However, this record has been quoted by many scholars

9 “红曲历史起源应在三国时代以前了，即三国说。”
10 “我国利用红曲菌的历史悠久，从汉代起就用它制曲。”
as the basis for the claim of the existence of *hongqu* in the Northern Wei dynasty (Erdoğan and Azirak 2004; Compilation Group of Gutian County Industrial Bureau 1989; Lin 1990). In addition, although some scholars do not think the “red wine” recorded in *A Record of Buddhist Monasteries in Luoyang* is necessarily *hongqu* wine, they still advocate the possibility of the existence of *hongqu* in the Northern Wei dynasty (Bao 2001).

### 2.3 The claim of the Western Jin dynasty as the origin

Liushahe (2001) points out that an ancient mixed congee was mentioned in the poem “Ode to Fishing” (*Diao fu* 钓赋) by Pan Ni (ca. 250–ca. 311), who describes *hongqu* as the rice cooked with wild rice with harmonious five flavors and lingering enriched fragrance.11 This is a citation in the *Taiping Reign-Period Imperial Encyclopedia* (*Taiping yulan* 太平御览) by Li Fang et al. (2003, chap. 850:12), compiled in the Song dynasty. Such an interpretation of this citation seems likely, as Pan Ni was said to be calm and tranquil by nature, and focused on study and writing. He was most famous for his “On Living and Working Peacefully” (*Anshen lun* 安身论).

### 3 Viewpoints since 2017

In May 2017, the author of this article, Lin Feng (2017), presented newly discovered historical references, and analyzed the evidence supporting claims of the origins of *hongqu* in the periods prior to the Tang dynasty, challenging claims of the existence of *hongqu* in the Han, Wei, and Jin dynasties, and supporting the claim that *hongqu* originated in the Tang dynasty.

#### 3.1 A critical review of the claim of the Han dynasty as the origin

In 2016, this author discovered that in Kong Guangtao’s 1888 facsimile edition of *Excerpts from Books in the Northern Hall* (*Beitang shuchao* 北堂书钞) (Yu 2015, chap. 144:3), the pertinent lines in Wang’s “Seven Interpretations” were cited as: “Traveling westward to the former Liang Kingdom, where fine rice from the Yusu area was cooked with an equal measure of *hongzhi* (红麹, red wheat flour) from Guazhou to generate a nice paste of soft and slippery texture, and a melting sensation in the mouth.”12 At the same time, this author noted that Kong comments that: “[In] Yan’s edition of *Wang Can’s Collected Works* and this record, the ‘General Chapter on Wine and Food’ was just like Chen’s [陈禹谟] edition that had mistaken ‘qing’ (青) for ‘su’ (素)

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11 “红曲之饭, 糙以菰粱。五味道洽, 馀气芬芳。”
12 “西旅游粱, 驿宿青粲, 瓜州红麹, 参糅相半, 软滑云云。”
and ‘zhi’ (麹) for ‘qu’ (麯) [麹 equals 麯 in ancient Chinese], as had Chapter 26 of Entry into Learning” (Figure 1).  

Kong’s comments explicitly indicate: (1) as a general cyclopedia compiled by Yu Shinan 虞世南 in the Tang dynasty, Excerpts from Books in the Northern Hall also cited the verse in “Seven Interpretations” by Wang Can; (2) Wang’s verse in “Seven Interpretations” had been cited in many editions of subsequent publications with the wrongly written characters of “qing” (青) for “su” (素) and “zhi” (麹) for “qu” (麯), for example, “General Chapter on Wine and Food” (Jiushi zongpian 酒食总篇) from Excerpts from Books in the Northern Hall in Wang Can’s Collected Works (Wang Can ji 王粲集) proofread and compiled by Yan Kejun 严可均 of the Qing dynasty, and the version of Excerpts from Books in the Northern Hall published by Chen Yumo 陈禹谟 of the Ming dynasty; (3) The verse cited in Chapter 26 of Entry into Learning also contains the same mistakes (Xu 2003).

Further investigation showed that the characters “Guazhou hongzhi” (瓜州红麯) are used in many sources citing Wang’s verse, including a copy of Excerpts from Books in the Northern Hall owned by Sun Xingyan 孙星衍 (Yu 2006, chap. 144:2a) (Figure 2) of the Qing dynasty, which is a Ming facsimile of the Song version, Ancient Tang Selected Works (Gutang leifan 古唐类范) (Yu 1368–1644, chap. 144:2b) (Figure 3) of the Ming dynasty, A Complete Collection of the Literature of the Later Han Dynasty (Quan Hou Han wen 全后汉文) (Figure 4) compiled by Yan Kejun (1958b, chap. 91:1), and the complete

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13 “严辑王粲集及本钞酒食总篇引同陈本青误素麯初学记廿六引亦然。”
Figure 2: Wang’s verse in *Excerpts from Books in the Northern Hall*, a Ming facsimile of the Song version.

Figure 3: Wang’s verse in *Ancient Tang Selected Works* (Ming edition).

Figure 4: Wang’s verse in *A Complete Collection of the Literature of the Later Han Dynasty* (Qing edition).
text of “Seven Interpretations” in Hirohito Edition of the Verified Version of the Dictionary by the Literature House Conserved in Japan (Ricang Hongrenben Wenguan cilin jiaozheng 日藏弘仁本文馆词林校证) (Xu 2001, chap. 414:130) (Figure 5).

Figure 5: Wang’s verse in Hirohito Edition of the Verified Version of the Dictionary by the Literature House Conserved in Japan.

Further textual research of relevant historical records by the author found that citations derived from Yu Shinan’s Excerpts from Books in the Northern Hall in the Tang dynasty all use “hongzhi” (红糍), while those from Xu Jian’s Entry into Learning of the Tang dynasty all use “hongqu” (红麹). Both works were written in the Tang dynasty. It was difficult for contemporaries to directly distinguish the correctness or otherwise of the different textual versions of the Han dynasty “Seven Interpretations” copied and quoted by these two sources, and, of course, reprints and citations by later generations provided opportunities for mistakes and omissions.

According to the Comprehensive Collection of Exegesis (Guxun huizuan 故训汇纂), “'zhi' (糍) is ground wheat. . . . When the bran and the flour are not separated, it is called ‘zhi’ (糍)” (Zong, Chen, and Xiao 2003, 2621). The food section of Excerpts from Books in the Northern Hall quotes Wang’s “Seven Interpretations” mentioning “hongzhi,” while neither “hongqu” nor wine is mentioned in its wine section. Similarly, Entry into Learning quotes “Seven Interpretations” in its food section, but there is no mention of either “hongqu” or wine in its wine section. All this implies that what was described in “Seven Interpretations” was actually a foodstuff, “hongzhi” (红糍), rather than wine related “hongqu” (红麹).

Regarding the definite correction of “'qu’ (麯) for ‘zhi’ (糍)” made by Kong in Entry into Learning in the Qing dynasty, considering that Kong was a well-known bibliophile and engraver, one of the “four major bibliophiles in Guangdong,” the author believes

14 “糍，麦敷屑也。⋯⋯麸与面未分，是为糍。”
that Kong’s views should be credible. Therefore, the author surmises that the only evidence supporting the origin of *hongqu* in the Han dynasty—“Guazhou *hongqu*” (瓜州红麹) cited in *Entry into Learning*—is not valid (Lin 2017).

### 3.2 A critical review of the claim of the Jin and Wei dynasties as the origin

The *Taiping Reign-Period Imperial Encyclopedia* by Li et al. (2003, chap. 850:12) of the Song dynasty cites a sentence from Pan Ni’s “Ode to Fishing,” mentioning “*hongqu* rice cooked with wild rice” (红麹之饭，糅以菰粱). In the same chapter, citing Wang’s “Seven Interpretations,” “Guazhou *hongqu*” (瓜州红麹) is also mentioned, which should be the same mistake of “‘zhi’ (糍) for ‘qu’ (麯)” pointed out by Kong Guangtao in the Qing dynasty. Meanwhile, the actual expression for “*hongqu* rice” (红麹之饭) used when citing the “Ode to Fishing” was “*hongmian* rice” (红麯之饭) in *Excerpts from Books in the Northern Hall* proofread by Kong (Yu 2015) and “*hongzhi* rice” (红糍之饭) in *A Complete Collection of the Literature of the Jin Dynasty* (Quan Jin wen 全晋文) edited by Yan Kejun (1958a, chap. 94:3) in the Qing dynasty, respectively.

The author has investigated various versions of *A Record of Buddhist Monasteries in Luoyang*, but did not find any instance of the expression “red wine.” In the facsimile edition of the Ming Ruyintang version of *A Record of Buddhist Monasteries in Luoyang* printed by Shanghai Hanfenlou (Yang 1936, chap. 3:107), the line “the color of wine is very red” (酒至色甚红) was found. The author is not sure if the words “red wine” were the result of the conceptualization of the sentence. In the same paragraph of the original work, however, based on “the wine you drink is its blood” (所饮酒是其血) (Figure 6), this author infers that it is more likely to have been “blood wine” (血酒). This demonstrates that the supposed records of *hongqu* in the Northern Wei dynasty are also not credible (Lin 2017).

### 3.3 A critical review and development of the claim of the Tang dynasty as the origin

For a long time, the issue of the time of the origin of *hongqu* has received wide attention. Since many of the historical records start to appear from the Tang dynasty and increased rapidly from the Song dynasty, this conforms to the rule that “records must lag behind invention,” so most scholars of *hongqu* still accept the view that it originated in the Tang dynasty and grew in popularity in the Song dynasty (Xing et al. 2000; Bao 2001; Lin 2017; Fu 1997; Pan 2008).

Even during the time when the claim of the Han dynasty being the origin was put forward in 1984 and widely accepted, many scholars still expressed doubts: one reason
is that there is no surviving tradition of hongqu (wine) making in the vast northwestern region surrounding Dunhuang and Guazhou; the second is that given that the northwest does not produce rice, it does not have the raw material basis for the invention and development of hongqu (wine) production techniques; the third is that the cold and dry climate in the north is not suitable for the temperatures and humidity required for hongqu production.

During the same period, many well-known scholars still published papers supporting the claim of the Tang dynasty as the origin. For example, Endo (1985) stated that “hongqu has a history of more than 1000 years on the Chinese mainland.” His failure to mention a Han origin implied that the Tang origin was favored. Wang (1995) believed that there were signs of hongqu wine making in the Tang dynasty; Fu and Huang (1996) advocated that hongqu originated between the Tang and Song dynasties; Gao (1997) held that the earliest record is in the Tang dynasty; Pan (2008) observed that the origin of hongqu was most likely to fall between the Tang and Song dynasties; Huang (2000) was still doubtful about the Han origin, and claimed that the Tang origin was more reliable.
4 Conclusions

In the early 1980s, Hong Guangzhu noticed that *Entry into Learning* contained “Guazhou hongqu” (瓜州红麯) in Wang’s “Seven Interpretations” of the Han dynasty. Based on this, he inferred that *hongqu* originated in the Han dynasty. This can be considered an important discovery at that time.

Although many scholars have doubts about this statement, the authoritative status of *Entry into Learning* made this viewpoint widely accepted by the “*hongqu* community” in China and abroad during the past nearly forty years, leading many scholars to investigate historical records in the period of more than six hundred years between the Han and Tang dynasties, and to search for “relics” in the vast area of Guazhou in Gansu Province in the northwest, and the provinces of Fujian, Zhejiang, Jiangxi, and Guangdong in the southeast. In order to make up for further lack of evidence, various speculations were put forward to prove this hypothesis (Xing et al. 2000; Bao 2001; Hanai and Zhou 2000; Liushahe 2001; Li et al. 2007; Gao 2012; Fu 2010), exerting considerable influence on research on the time of origin of *hongqu*.

In 2017, the author (Lin 2017) published an article titled “Textual Research on Gutian as the Place where Red Yeast Rice Originated” (Fujian Gutian wei *hongqu* fayuandi kaozheng 福建古田为红曲发源地考证), using a series of newly discovered historical materials to reinforce the possibility of the mistaking of “‘zhi’ (麯) for ‘qu’ (麯)” in *Entry into Learning*, and the conclusion is clear. It is hoped that this will play a certain role in bringing the academic community round to the consensus of the “Tang origin viewpoint” and focusing on in-depth research.

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