The Mystery of Steam Wine

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Introduction

When people talk about China, in addition to the famous scholars that Chinese civilization produced, such as Mencius[1], Confucius[2], and Lao Tzu[3], food culture is also an essential part. Among these, alcohol, especially *steam wine*[4], is a crucial part. Steam wine, also known as the *steam-made wine*[5], is one of China's long-established alcoholic beverages. Its history can be traced back to the mythical period of China[6], when the technique of making steamed wine may have already appeared. Steaming wine has an important position in Chinese culture, not only as a way to drink and make good wine but also as an essential element of festivals, weddings, and banquets. However, there are still many unanswered questions about the categorization and birth of steam wine. Curiosity is the first motivation that drives academic research. As a lover of Chinese wines, I also maintain a constant curiosity about this historic beverage. Therefore, in this paper, I aim to analyze the mystery of the classification and the birth of steam wine from an objective and dialectical perspective to compare the different and controversial views, and provide an informed background and framework for further research.

The Mystery of Classification: The distinction between steamed and distilled spirits in ancient China

If scholars want to study the role of something in a particular historical context, they need first to understand what it is. In recent

1 Mengzi, 孟子, 372 B.C.E. - 289 B.C.E.

2 Kongzi, 孔子, 551 B.C.E. - 479 B.C.E.

3 Laozi, 老子, 571 B.C.E. - 471 B.C.E.

4 zhengjiu, 蒸酒.

5 zhengniang jiu, 蒸酿酒.

6 Zhongguo Shanggu Chuanshuo Shidai, 中国上古传说时代.

decades, scholars have often debated the distinction between steamed and distilled spirits in ancient China. In this regard, some scholars have relied on archaeological evidence to provide a possible answer. For example, based on archaeological evidence from Ma Chengyuan[7]s *Examination and Experimentation of Bronze Distillers of the Han Dynasty*[8] and the *Chengde Summer Palace Administration*[9]*'s Bronze Boiling Pot of the Jin Dynasty Unearthed in Qinglong county, Hebei province*[10]*,* Wang Saishi[11] concluded: 1) there were many instruments could be used for distillation purposes in ancient China; 2) these instruments could also be used for a wide range of purposes; and 3) these excavated artifacts could be used for both distilled spirits and steamed wine.[12]

Overall, Wang's idea is relatively reliable, as modern scientific experiments have validated it. In 1975, a *Jin Dynasty*[13] copper-bearing pot, the same as was used for making distilled spirits or wine, was transferred to a laboratory. After analyzing the structure of this pot, Ma Chengyuan found a cooler and sink inside of the pot. These features reflected the standard structure of split double distillation. After closely measuring the volume of the entire vessel, Mr. Ma concluded that the distillation vessel/pot could contain only a very limited amount of distillation material, such as wine lees. This key archaeological evidence is of considerable value. It suggests that using delicate, small, and costly containers to make low-volume alcoholic beverages is inefficient for drinking and uneconomical. It seems unlikely that such use of time and labor to obtain a small amount of high-purity steam wine or a large amount of low-purity wine would be feasible. On this point, Wang added more detail, for example: he doubted that the apparatus is a distilling device, given its small size. The distiller is from the Jin Dynasty, and its hemispherical pot is only 26 cm high and can hold a limited amount of alcohol. Two tests were conducted, producing less than one kilogram of low-strength alcohol. Mr. Wang believes that such a small wine-making pot would limit the wine's quality. He also thinks that the Jin Dynasty copper burner found in Qinglong county was too small for wine steaming, but suitable for making insect repellent.[14] Mr. Wang notes that

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7 马承源, 1927-2004.

8 Haidai Qingtong Zhengliuqi De Kaocha He Shiyan,《汉代青铜蒸馏器的考察和实验》.

9 Chengde Bishu Shanzhuang Guanlichu, 承德避暑山庄管理处.

10 Hebei Sheng Qinglong Xian Chutu Jindai Tongshao Jiuhu,《河北省青龙县出土金代铜烧酒锅》.

11 王赛时, 1955 – now.

12 Wang, "2010," 240-241.

13 *Jindai*, 金代.

14 Hualushui, 花露水.

distilling a small amount of wine with the apparatus may not have much value, but producing a liter of insect repellent was valuable because it was expensive.[15]

Figure 1. Bronze wine pot of the Jin Dynasty, front view 1[16]

Figure 2. Bronze wine pot of the Jin Dynasty, front view 2[17]

In addition to the evidence in archaeology, ancient historical texts can give us more clues. For this point, Liu Yong suggests:

> The existence of distilled and steamed spirits in ancient China remains controversial and unsupported, despite the presence of distillers at least as early as the Song Dynasty, the existence of many taverns in many cities during the Song Dynasty, and the existence of many words used to describe spirits in Song lyrics.[18]

In addition to distillers, this problem arises from the conflation of the terms *Shaojiu, Baijiu*, and steam wine in ancient Chinese literature. This is because *Shaojiu* can be interpreted as both *Baijiu* and wine made by steaming, as well as an independent type of alcohol. Moreover, steam can also be used to describe the method of making both *Baijiu* and *Shaojiu*. This has led modern scholars to analyze ancient texts with confusion and uncertainty. Some scholars have dealt with this uncertainty by simply accepting the vague interpretation of such

15 Wang, "2010," 240-241.

16 One of the earliest wine pots found today, was discovered in December 1975 in the south of Xishanzui Village, Qinglong County, Qinhuangdao City, Hebei Province. This artifact is located in the exhibition hall of "*Civilization - Exchange - Integration - Development - Hehe Chengde from Ancient Times*" [“文明·交流·融合·发展——合和承德从远古走来”展厅] and is a national cultural relic. Chengde Museum. Accessed on February 3rd, 2023. http://www.chdmuseum.cn/a/anli/diancangjingpin/2020/0801/380.html

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18 Liu, "Chinese Wine," 37.

uncertainty. For example, the Southern Song literary scholar Zhao Xiguan[19] mentioned in his work, *Tiao Xie Leibian*[20]:

Translation:

> For someone who is drunk and cannot be woken, immediately use mung bean flour (...) Ginger should not be consumed with *alcohol*.[21] Consuming scallions with *white alcohol*[22] increases the risk of illness. Avoid consuming sweet foods when drinking *white alcohol*.[23]

Original text:

> 烧酒醉不醒者，急用绿豆粉粉 (...) 生姜不可与烧酒同用。“饮白酒生韭令人增病。饮白酒忌诸甜物”。[24]

The great pharmacologist Li Shizhen[25] recorded in his *Compendium of Materia Medica*[26]:

> The practice of drinking *alcohol*[27] is not an ancient one. It was created during the Yuan Dynasty. The method involves putting *strong alcohol*[28] and *rice wine lees*[29] into a pot and steaming it, so the vapor rises. The liquid, then, can be collected by using a *container*.[30] Any sour or spoiled wine can be steamed and drunk. Currently, only glutinous rice, *millet*,[31] or barley is steamed and fermented in a *jar*[32] for seven days, then taken out. Its color should be as clear as water, and its flavor should be extremely strong, which is also the *alcohol dew*.[33]

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19 赵希鹄, 1170-1242.

20 调燮类编.

21 Shaojiu, 烧酒.

22 *Baijiu*, 白酒.

23 *Baijiu*, 白酒.

24 Deng and Shuai, “Qiannian Jiu Wenhua,” 37.

25 李时珍, 1518－1593.

26 Bencaogang Mu, 《本草纲目》.

27 Shaojiu, 烧酒.

28 *Nongjiu*, 浓酒.

29 *Zao*, 糟.

30 *Qi*, 器.

31 *Li*, 黍.

32 Quniang Weng, 曲酿瓮.

33 *Jiulu*, 酒露.

> 烧酒非古法也，自元时创始，其法。用浓酒和糟入瓶，蒸令气上，用器承取滴露。凡酸坏之酒皆可蒸烧。近时惟以糯米或黍或秫或大麦蒸熟，和曲酿瓮中七日，以惭蒸取，其清如水，味极浓烈，盖酒露也。[34]

When analyzed from the perspective of ancient documents alone, the mixed-use of *steaming*[35] and *burning*[36] as verbs and nouns made it uncertain about distinguishing between *Baijiu, Shaojiu*, and steamed wine. It is also likely that the mixed use of these words by the ancient Chinese represents the ambiguity of the distinction between alcoholic beverages at the time. But why is this puzzle of steam wine so hard to solve? On the one hand, it is challenging to determine if the ancient Chinese depictions of steamed wine, *Baijiu*, and *Shaojiu* are compatible with modern classifications of alcohol. This is because modern *Baijiu* mainly refers to highly distilled spirits made by brewing and steaming using pure grain solid or semi-solid fermentation techniques. Steamed wines, on the other hand, are the types of *Shaojiu* made by steaming as the primary process in brewing. This process uses raw materials such as corn, sorghum, and wheat grains with the principle of distillation. *Shaojiu*, on the other hand, is a kind of colorless distilled spirit made by distillation, fermentation, and blending. In summary, those common confusing distinctions of modern liquors seem like mapped ancient Chinese wine naming style trends in alcoholic beverages. Many scholars have noted the same awkwardness regarding this classification dilemma:

> It is inconclusive from the names alone to determine the alcohol's actual types, such as *Shaojiu*, steam wine, and *Baijiu*, referred to in the above quotation, are what we call liquor today. Some people believe that it has been a long-standing tradition among Chinese folk to call steam wine *Shaojiu*, and that the wine produced in a *distillation vessel/specific wine pot*[37] is also called *Shaojiu*. However, arguments about whether liquor originated in the Tang Dynasty are still insufficient, and more rigorous scientific tests are needed.[38]

Hence, the continuation of the current state of confusion and inadequate evidentiary support regarding the classification of wines in China would be deemed unsuitable and perplexing for the readership of this scholarly work.

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34 Deng and Shuai, "Qiannian Jiu Wenhua," 38.

35 Zheng, 蒸.

36 *Shao*, 烧.

37 Shaoguo, 烧锅

38 Deng and Shuai, "Qiannian Jiu Wenhua," 37.

Thus, these types of spirits will be referred to as steamed wine in the following text, based on their typical production method. If other scholars use the terms: *Baijiu*, steamed wine, distilled liquor, or *Shaojiu* in different historical contexts, these terms will be retained as they are in the original work. But, in this paper, I invite readers to take the names of the liquors that other scholars mention as steamed wine from a broad perspective.

Figure 3. The Land Silk Road[39]

The Mystery of Classification

The origin of steamed wine is also full of mysteries, but fortunately, this mystery is not as unfathomable as the ancient Chinese classification of alcoholic beverages. In general, most scholars support the following relatively plausible origins. First, some scholars believe that the origins of steam wine can be traced back to as early as the Northern Song Dynasty. Around 1000 AD, distilling methods and stills from the West[40] were introduced to China.[41] This idea is possible because the overland Silk Road, which emerged as early as the Western Han Dynasty, allowed Chinese and European cultures to interact with each other. This cultural exchange between China and the West was spread by merchants along the Silk Road. Ancient Chinese official documents record a variety of wines were spread from the West to China and loved by the Chinese people since the Han Dynasty. The most famous of these is the *Ancient and Modern Commentary,*[42] cited in *Taipingguang Ji*,[43] which describes a plant that produces large kernel(s) in the ancient region of Asak.

39 The Land Silk Road, Accessed on February 05, 2023 https://zh.wikipedia.org/wiki/丝绸之路.

40 Including today's Central Asia.

41 Jiang, "Zhongguo Jiu Wenhua Yanjiu," 9-10

42 Gujin Zhu, 《古今注》.

43 《太平广记》

The kernel of this plant is as big as a gourd of five or six ancient Chinese liters. Using this empty kernel to hold water, the water would turn into wine in a short time. A man named Liu Zhang[44] once got two *Qingtian kernels*[45] and invited his friends to a *banquet/ party*.[46] The wine made from these two kernels could be drunk by twenty people.[47]

This statement that a single fruit kernel can produce wine for ten people almost instantly is undoubtedly an exaggeration. However, when we jump forward to the Tang Dynasty, there is solid evidence that grapes from the West were made into Chinese-style wine in China. For example, *Volume C*[48] of the *New Book of the South*[49] recorded the story of an ancient Chinese official who received grapes from Central Asia, planted the seeds in his garden, and used the grapes to make a green wine with a strong aroma.[50]

From the above examples and a wealth of other historical sources, it is clear that China has a variety of wines and related wine-making methods were introduced in ancient times. However, almost all documents indicate that most of the wine production methods introduced before the Song Dynasty were fruit-based, but there is a lack of information on imported steam wine production techniques. One of the fundamental techniques for making steam wine is distillation, and one of the vital manufacturing tools is the still. Some scholars consider that these two elements were invented in China. Some relatively radical scholars even believe that China was one of the first countries to invent the still and that brandy in Europe was born only after the distillation material was introduced to France before the 17th century. These scholars cited the writings of the Ming Dynasty pharmacologist Li Shizhen as evidence and argued that the *Shaojiu* Mr. Li made from grapes was the prototype of brandy.[51] According to archaeological evidence, this view is unreliable because the distillers excavated from the Western Han Dynasty appeared thousands of years before the Ming Dynasty. This suggests that the distiller recorded by Li Shizhen in the Ming Dynasty was not the first distiller

44 Liu Zhang (? - ?).

45 青田酒核.

46 Jibin Shezhi, 集宾设之.

47 Xu, "An Introduction to Chinese," 233.

48 Bing Juan, 丙卷.

49 Nanbu Xinshu, 《南部新书》.

50 Xu, "An Introduction to Chinese," 235.

51 Deng and Shuai, "Qiannian Jiu Wenhua," 190.

in China. But scholars who oppose the origin of steam wine in China are unable to convince those who support that steamed wine originated in China. This makes the origin of steamed wine all the more confusing.

However, in recent years, scientists have unearthed a group of distillers from the Eastern Han Dynasty, providing evidence for steamed wine's emergence. For example, the bronze-made vessel, now in the Shanghai Museum, has a large volume and a full range of distillation accessories. These features gave the owner of this bronze vessel the function to make relatively large quantities of moderately strong wine. This could mark the beginning of the production of steamed wine in China. Through numerous tests by archaeologists and archaeological excavation records, the authors of *Thousands of Years of Wine Culture* concluded:

> Mr. Ma Chengyuan, a famous archaeologist, has done several distillation experiments and brewed a cup of steam wine with an average of about 20° [based on modern alcoholic standards]. This bronze vessel was identified as an artifact from the early to mid-Eastern Han Dynasty, from which it was inferred that Baijiu had already appeared in the Eastern Han Dynasty.[52]

Other scholars believe the bronze vessels from the Eastern Han period were only isolated cases, probably created by some ancient Chinese wine enthusiasts for recreational purposes. They question this for two reasons: 1) there is too little evidence from excavated artifacts; 2) it is uncertain whether ancient people used stills for the purpose of making wine. They conclude that the Song Dynasty was when steamed wine was invented, without doubt about the purpose of distillers. Their view is mainly derived from the documentation of the Song Dynasty, which describes the use of alcohol in medicine in detail.[53]

However, the problem is: it is nearly impossible to verify whether the Siamese wine and *Shaojiu* mentioned in the text are what modern people consider to be steamed wine. This question is mainly due to the uncertainty of the evolution of the definition of alcohol over thousands of years in Chinese civilization and the fact that most of the writings on brewing in the Song Dynasty did not mention distilled spirits or steamed wines. For example, the Song Dynasty's *Northern Mountain Wine Book*,[54] a work on brewing techniques in larger breweries, documented the most popular brewing methods and

52 Wang, "2018," 38.

53 Deng and Shuai, "Qiannian Jiu Wenhua," 39.

54 Beishan Jiujing《北山酒经》.

boiling processes in the Song Dynasty at the time, but did not mention steaming at all. This raises questions about the existence of steam wine in the Song Dynasty.[55]

To sum up, there is no evidence to show the presence of steaming process methods in the *Northern Mountain Wine Book*, but this work described the steps for boiling wine. Based on these steps, Wang Saishi believes that the Chinese mastered the method of steaming and boiling wine in water during the Song Dynasty.[56] And yet, the presence of steam in the making of wine does not mean that the making action was steaming. It is essential to understand this point. On the one hand, the Chinese often substituted the word "steam" for the steam produced by boiling water, resulting in multiple meanings and ambiguity. On the other hand, the *Northern Mountain Wine Book* is mainly about boiling and lacks a description of steaming. Therefore, this view, represented by Mr. Wang, is not a piece of conclusive evidence that steamed wine originated in the Song Dynasty.

砖雕壁画 (猿猴造酒) ***Brick Mural Painting "Apes Making Wine"***[57]

Can ancient Chinese legends provide a breakthrough? Some scholars believe steam wine was first created by accident when primates (not humans) were storing food. When primates were foraging in the wild, if they gathered extra food for their daily needs, they would store it. As some of these primates chose relatively moist storage locations, these collected wild fruits were fermented with the water in the storage location. As time passes, this mixture of

55 Deng and Shuai, "Qiannian Jiu Wenhua," 39.

56 Wang, "2010," 155.

57 Liu, "Chinese Wine," 06.

rotten food and water that the primates made by accident produced the effect of brewing alcohol. When these primates tasted this magical drink that can bring much energy to the body and obtain the hallucinatory feeling to a certain extent, they used their relatively developed brains to replicate the step of wine making. In this case, if a human came to the ape's camp and found the animals had brewed wine, this person could carry the wine back home and use fire to heat and sterilize the drink. This process will make the drink more delicious, after it is heated and sterilized[58] and reduce the risk of being poisoned. This view of the birth of steamed wine is very unreliable on the surface of it. For this theory to be valid, scholars need to prove two events happened: 1) primates could make wine; 2) primates had the habit of drinking wine; and 3) ancient Chinese people discovered and drank wine made by primates.

Firstly, an observation by Li Rihua,[59] a Ming Dynasty writer and calligrapher, mentioned in his *Purple Peach Xuan Miscellany - Pengchao Night Talk*[60] allowed modern people to understand the connection between primates and wine. The primates collected wild fruits in spring and summer and placed the fruits in rock puddles filled with water. As time passed, the fruit and water reacted chemically and created a process called fermentation. The aroma of the wine made by these primates can be smelled from a long distance away. People who cut wood in the mountains and forests would steal the wine made by the primates to take back to their homes.[61]

Secondly, from ancient literature, we can find that the Eastern Han scholar Gao You's[62] statement in the commentary of the *General Discussion Session*[63] of the *Book of Huainan*.[64] He found that some primates not only drink but also became addicted to alcohol. Probably because gibbons have better blood circulation and metabolism, they also get drunk more slowly than humans. These primates are also unaware that they are drunk.[65] The information summarized by Mr. Gao's careful observation of primates also

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58 *Wenjiu*, 温酒

59 李日华, 1565 -1635.

60 Zitao Xuan Zazhui-Pengchao Yehua, 《紫桃轩杂缀 · 蓬拢夜话》.

61 Deng and Shuai, "Qiannian Jiu Wenhua," 05.

62 高诱, ?-?.

63 Silun Pian《汜论篇》.

64 Huainan Zi《淮南子》.

65 Deng and Shuai, "Qiannian Jiu Wenhua," 05.

matches the archaeological records discovered by Chinese scientists in the 20th century. For example, in 1977, scientists from the Institute of Vertebrate Paleontology and Paleoanthropology of the Chinese Academy of Sciences discovered gibbon fossils at the archaeological site of Songlin village,[66] near the ancient town of Shuanggou Town[67] in Northern Jiangsu.[68] After detecting and analyzing the fossils of these animals, the scientists found that these gibbons showed signs of drinking alcohol during their lifetime. This fossil evidence shows that gibbons were able to drink alcohol and may have had accidents due to excessive alcohol intake, which eventually led to their death and fossilization. On this point, Liu Yong added:

> The "Ape Wine Version"[69] claimed that almost 10,000 years ago, apes discarded or stored fruits in stone crannies or tree holes, where the sugar content was naturally fermented into juice. The juice was drunk by ape-men during the Paleolithic Age and by early men during the Neolithic Age.[70]

From the modern scientific view, fermenting wine requires sugar and water. In the "Ape Wine Theory", the plant's fruit provides the sugar, and the water comes from some wild primates' intentional or unintentional production of wine. The combination of fruit and water provides an excellent place for yeast to flourish. This theory is possible in combination with the fact that the humidity is high due to the long-term drifting fog in Huang Mountains. Also, it is very common for fruits with high sugar content to fall off after ripening. Even if those primates do not actively make wine, those fruits that fall in puddles will ferment with oxygen and turn into wine with the help of yeast. As one of the most popular and tasty food sources for primates, even apes that do not make wine are likely to have accidentally drunk wine while picking up ripe fruit from puddles. It may be that the aroma of wine is attractive to them or that the genes in animals are eager to obtain high-energy food; some primates collect the fermented and delicious fruit in their nests. Therefore, the "Ape Wine Theory" aligns with credible science. However, as there is no evidence that humans steamed the wine made by apes, the problem of steamed wine remains unsolved.

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66 松林庄.

67 双沟镇.

68 苏北.

69 Ape Wine Theory, Yuanhou Zaojiu Lun, 猿猴造酒论.

70 Liu, "Chinese Wine," 06.

Conclusion

In summary, it is difficult for scholars to agree on a clear conception regarding steamed wine. The lack of a clear and precise definition of such a drink that has grown up with Chinese civilization for such a long time reflects the lack of importance scholars attach to the study of steamed wine. The birth of steamed wine is still a mystery and full of room for discussion. This gap in scholarship also indirectly demonstrates the diversity and uncertainty in the translation of terminology from ancient Chinese. Yet, this diversity and uncertainty are what make ancient Chinese and modern Chinese so fascinating. I believe that the romance of history covered with a translucent veil in the form of Chinese characters is one of the most fascinating parts of steam wine in the cradle of Chinese civilization. This is partly what every archaeologist, ancient literature researcher, East Asian linguist, and other scholar who love Chinese wine culture should strive for, namely, to enjoy the search for the mystery of steam wine. Whether it is the Ape Wine Theory, the Chinese Birth Steam Wine Theory, the Theory of Importation of Steam Wine Technology, or other theories, a clear lineage of the evolution of steam wine in Chinese history will eventually emerge as the narrow concept of steam wine is defined, more ancient sites are excavated, and the Chinese language system is further analyzed. Whether in the past or the present, the multiple meanings of a single *Chinese character*[71] and the extension of the meaning of a single Chinese character have presented the flexibility of Chinese language, the diversity of lexical combinations, and the beauty of pictograms, while at the same time posing several obstacles to scholars in studying ancient texts. This hindrance is usually caused by the flexibility of multiple meanings of a single character and the difficulty of determining the exact meaning of a single character in a Ci[72] based on its context. This obstacle also created a challenge for me to write this paper on the translation of ancient Chinese. A typical example of this is the word "烧". The reason why I used *Shaojiu* instead of the corresponding English word in my paper is 1. to distinguish it from Japanese *shochu*; 2. the Chinese character for "烧" in the context of alcohol can be interpreted as to burn / to cook / to stew / to bake / to roast / to heat / to boil (tea, water etc.). The multiple meanings of the same Chinese character are often indistinguishable from the contextual content. When this feature of Chinese characters is combined with the fact that the same character has

71 *zi*, 字.

72 *word*, 词.

both verb and noun natures and unclear classification of Chinese alcohol, the precise meaning of most ancient Chinese literature on alcohol becomes ambiguous. This maze-like situation is illustrated on page seven. As I try to find the way out of the maze, the uncertainty about Chinese characters does not frustrate my exploration of the world of steamed wine. My real frustration is that many modern scholars have only studied classical Chinese writings in detail to the extreme while lacking detailed studies of Chinese alcohol, especially steam wine, a beverage that grew up with the Chinese people. This paucity has left steam wine and other Chinese alcoholic beverages a mystery in terms of classification and origin to this day. Although the Ape Wine Theory, the Chinese Birth Steam Wine Theory, the Theory of Importation of Steam Wine Technology, and other theories each have their own seemingly plausible explanations for the origin of steam wine, their evidence is not solid. In comparing different perspectives and collecting historical evidence, I have found that almost all of them are missing some keys. For example, in the Ape Wine Theory, there is a lack of evidence that humans used wine made by apes to make steamed wine. In exploring whether steam wine was born in China, small wine vessels excavated in China during different dynasties seem to prove that the ancient Chinese had the tools and technology to make steamed wine, while the lack of economic efficiency and quality of small wine vessels also suggest that steam wine may not have been born in China. Similarly, those who support the idea that steam wine was introduced from the West are again unable to prove their case with solid evidence.

Bibliography

Benn, James A. Tea in China: *A Religious and Cultural History*. University of Hawai'i Press, 2015. *JSTOR*, http://www.jstor.org/stable/j.ctt13x1kn2. Accessed 3 Feb. 2023.

Cheng De Museum. "Jindai Qingtongshao Jiulu 金代青铜烧酒锅 Jin Dynasty Bronze Boiling Wine Pot." *Cheng De Museum*, 2010, http://www.chdmuseum.cn/a/anli/diancangjingpin/2020/0801/380.html.

Deng, Yumei, and Shuai, Dong. *Qiannian Jiu Wenhua* 千年酒文化 *Thousands of Years of Wine Culture*. Tsinghua University Publishing House Co., Ltd, 2013.

Jiang, Yanfeng. *Zhongguo Jiu Wenhua Yanjiu* 中国酒文化研究 *Study of Chinese Wine Culture*. Hunan Normal University Press, 2006.

Liu, Yong. *Chinese Wine*. Huangshan Publishing House, 2012.

The Land Silk Road. Wikipedia, zh.wikipedia.org/wiki/丝绸之路. Accessed 5 Feb. 2023.

Wang, Saishi. *Zhongguo Jushi* 中国酒史 *History of Chinese Wine*. Shandong University Press, 2010.

Wang, Saishi. *Zhongguo Jushi* （*Chatu Ban*）中国酒史 (插图版) *History of Chinese Wine* (*Illustrated Edition*). Shandong Pictorial Publishing House, 2018.

Xu, Xinghai. *An Introduction to Chinese Wine Culture*. China Light Industry Press Ltd, 2010.