# Production and Management of the Lacquer Industry during the Warring States, Qin and Han Periods

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Han

Oin

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state-run industry

The state-run lacquer industry from late Warring States to the Han times was quite prosperous. Inscriptions on the unearthed lacquer wares indicate that several governmental departments, which included agencies of the central administration to agencies of various levels of local authorities, oversaw their production.

## I. State-run Industries of the Shu and Guanghan Prefectures

Archaeological materials and written texts simultaneously point to the fact that the state-run industries of Shu 蜀 prefecture and Guanghan 广汉 prefecture, both located in modern Sichuan 四川 Province, specialized in the production of metal-rimmed lacquers. The extant archaeological records indicate that the earliest statemade lacquer of the Shu and Guanghan prefectures ever unearthed dated to 85 BC; and the latest dated to AD 102. Within this span of 187 years, the state lacquer



Fig. 1 Lacquer cup with gilt bronze handles from Lelang 乐浪

industry had not been interrupted (Figs. 1-3).

Inscriptions on the lacquers made by the Shu and Guanghan state workshops, in general, included the information of the manufacture date, titles of officials, name of the vessel, volume of the vessel, names of the workers, names of the officials, etc. The order of names of workers and officials varied through time. Prior to 60 BC, the names of officials were placed in front of the names of craftsmen. Started no later than 27 BC, the order reversed. Most of the inscriptions included the glyphs "*cheng yu* 乘舆", indicating that these wares were specifically made for royal consumption. The titles of lacquer officials of the Shu and Guanghan prefectures went through some changes during the Wang Mang  $\Xi$  莽 era.

The highest executive officials of the state lacquer workshops of Shu and Guanghan prefectures were the "chang 长". He was assisted by "cheng 丞", "hu gong zu shi 护工卒史", "yuan 掾", "ling shi 令史", "se fu 啬夫", and "zuo 佐", etc. Theses titles were inscribed on the lacquer wares in descending order of ranks. Their jurisdictions and hierarchical structure were similar to those of the officials of other state-run industries. The changes of the ranking of these industrial officials of Shu and Guanghan synchronized with the changes in the industrial offices of Henan 河南, Nanyang 南阳 and Yingchuan 颖川 prefectures.

The craftsmen in the Shu and Guanghan state lacquer industry had different titles reflecting the variation of work types. "Su gong 素工" specialized in the carpentry. The painting involved several procedures and were assigned to several workers. "Xiu gong 髹工" painted the primer; probably few coats were applied. "Shang gong 上工" painted on the primer; in other words they





Fig. 3 The inscriptions in the Han period lacquer wares 1. plate from Qingzhen 清镇, Guizhou 2. cup inscriptions from Wang Xu's tomb 3. cup inscriptions from M200 in Zhenbaili 贞柏里



Fig. 2 Lacquer plate with gilt bronze rim from Lelang 1. the three-bear pattern in the interior bottom 2. the inscriptions in the exterior





were applying the surface coating, and multiple coats were applied. "Dan gong 丹工" painted the red lacquer coat. "Xiu dan 髹丹" painted red lacquer on black background, but no pattern was used. On the other hand, "hua gong 画工" applied the patterns. "Xiu dan hua 髹 丹画" included the three procedures of priming, painting red and painting patterns. "Xiu hua 髹画" only involved priming and patterns and no red lacquer was involved. "Tong er huang tu gong 铜耳黄涂工" was the specialist who gilt gold on the bronze handles of cups. "Tong kou huang tu gong 铜钼黄涂工" gilt the bronze rims of vessels. These two procedures were similar, but the parts decorated were different, and they were assigned to two different craftsmen. "Qing gong 清工" and "huang tu gong 黄涂工" were closely related. Perhaps the former was responsible for the cleaning of excessive paint applied by the latter. Finally, the lacquer ware was put onto the hands of "zao gong 造工 ", who polished, inscribed on, and cleaned the vessels.

Analysis of the inscriptions of the state lacquer wares made in Shu and Guanghan indicates that none of the wares made before 17 BC contained the glyphs of "cheng vu 乘舆" and the documentation about the production procedures was brief. Perhaps these vessels were not made for the royalties. Alternatively, the formality of inscriptions of royal lacquers had yet to be established. In any event, from 17 BC to AD 71, a rigid format of the contents and order of inscriptions for the royal lacquers had taken form. It became a rule to inscribe the information in the order of manufacture date, titles of officials, "cheng yu", name and volume of vessel, names of workers, and names of officials. From the types of works listed, the state workshops in Shu and Guanghan prefectures had a fine internal division of labor. The order on the inscriptions represented the order of the production procedures. A typical order was: "su gong", "xiu gong", "shang (qi) gong", "huang tu gong", "hua gong 画 工", "dan gong", "qing gong", and finally "zao gong". According to the actual procedures of production, some of the work types were not documented in the inscriptions. In addition to the names of workers, the inscriptions also included the names of officials managing the workshops. The administration of the state lacquer industry of the Shu and Guanghan prefectures was rigorous.

The prosperity of the state lacquer industry of the Shu and Guanghan prefectures during the mid- and late Western Han was short-lived. By the early years of Eastern Han, or more precisely, after AD 45, the once popular metal-rimmed lacquer basins and metal-handled lacquer

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cups were no longer produced. The industry was further hurt by the lost their commission of supplying lacquers to the imperial palace, which hastened the decline of state lacquer industry in Shu and Guanghan. Approximately at the same time, lacquer wares bearing the Shu prefecture seal but had the characteristics of being made by independent craftsmen started to appear. By the terminal years of Eastern Han, the state lacquer industry was in deep recession. The major reason for the decline of the industry was that the Shu and Guanghan prefectures that they can not meet the royal standard lost their commission of supplying lacquers to the imperial palace. After the Eastern Han regime, the Shu prefecture continued to produce lacquers; but they were likely produced by nonstate workshops. These latter artifacts no longer bore the inscriptions and painting style diagnostic of the lacquer wares of the state industry of Shu prefecture.

## II. "Kao gong" and "gong gong" in the Imperial Capital

According to written texts, "kao gong" was head by "ling  $\diamond$  ", who was assisted by the left and the right "*cheng*" 丞". The main duty of "kao gong" was overseeing the production of weapons; but it was also responsible for various miscellaneous productions, such as the production of ribbons. The inscriptions on lacquer wares suggest that "kao gong" also managed the production of lacquers. The scripts of "gong gong" and "kao gong" simultaneously appeared on the lacquer inscriptions, suggesting that they were two different departments of the government. The department of "gong gong" was headed by "ling", like that of "kao gong". The inscriptions on "kao gong" and "gong gong" made lacquer wares had format similar to those made after 27 BC in the Shu and Guanghan prefectures. The only difference was that the inscriptions of "kao gong" and "gong gong" listed the titles of officials in ascending ranks; wherein, those in the Shu and Guanghan lacquers were organized in descending order. The "kao gong" and "gong gong" official ranks, in ascending order, comprised of: hu 护zuo 佐 –se fu 啬夫 –ling shi 令史 –yuan 掾 –you cheng 右丞-ling 令. The lowest rank in the order, or the number of ranks, varied from time to time. Sometimes, hu was the lowest ranking official; sometimes lingshi was the lowest. The titles of officials and craftsmen seen on the "kao gong" and "gong gong" wares were mostly seen on the inscriptions of the Shu and Guanghan wares. Their jurisdictions were more-or-less the same. However, there were some titles seen in the former but were not

seen or different in the latter.

The heads of the "kao gong" and "gong gong" departments were "ling". The heads of the state industries of Shu and Guanghan prefectures were "cheng". The "kao gong" and "gong gong" departments had the left and the right "cheng"; wherein, their Shu and Guanghan counterparts had only one "cheng". This difference indicates

that the departments of "kao gong" and "gong gong" were bigger than the corresponding departments in Shu and Guanghan. None the less, the extant archaeological collection of lacquer wares made by "kao gong" and "gong gong" is considerably smaller than that made by the Shu and Guanghan state workshops. This was attributable to the fact that the latter were workshops specialized in lacquer production, while lacquer-making was only one of the many industries commissioned to the former. "Cheng yu" lacquers comprised a small portion of the "kao gong" and "gong gong" lacquers. The majority of their lacquer production was not "cheng yu" wares. This is indicative that only a small portion of the "kao gong" and "gong gong" lacquers were consumed by the royal households. On the contrary, the majority of the Shu and Guanghan lacquers were consumed by the royal households.

The work types scribed on the "kao gong" and "gong gong" lacquers were comparably simple. Sometimes, not all of the work types in a complete lacquer production procedure were recorded. Sometimes one individual was involved in multiple work types. It was likely that the lacquer division did not have enough workers for a fine division of labor. Consequently, an individual had to work in multiple stages of the production. In contrast, the Shu and Guanghan lacquer industries had much finer division of labor. This disparity suggests differences in the scale of production and quality of the products. The lacquers produced by "*kao gong*" and "*gong gong*" as a whole were obviously inferior to those produced by the Shu and Guanghan state-run workshops. A comparison between the "*kao gong*" and "*gong gong*" lacquer wares (Figs. 4 and 5) and the Shu and Guanghan lacquer wares indicates that they were similar in style

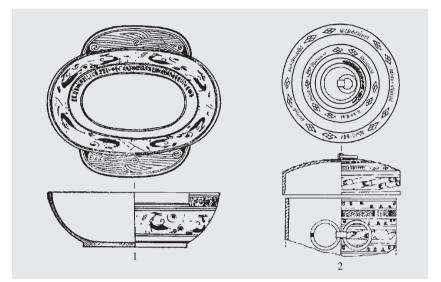


Fig. 4 Lacquer wares with "kao gong" glyphs from Wuwei 武威 and Yongzhou 永州 1. cup with gilt bronze handles 2. zun-container with chiseled pattern

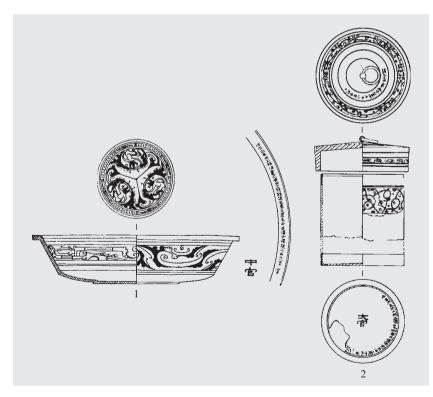


Fig. 5 Lacquer wares with "gong gong" glyphs from Han-jiang and Yongzhou
1. cup with gilt bronze rim and its glyphs on the reverse side and exterior bottom 2. *zhi*-cup with gilt bronze rim and its glyphs in lid and exterior bottom

and locations of inscriptions. Evidently, the former was imitation of the latter.

### **III. Industries under Local Jurisdictions**

The tomb of Duke of Ruyin 汝阴侯 of Western Han at Shuanggudui 双古堆, Fuyang 阜阳, Anhui 安徽 yielded lacquer wares bore the seal of "*ru* (*ru*) yin 女(汝)阴". Tombs M1, M2 and M3 at Zhangjituanshan 张集团山, Yizheng 仪征, Jiangsu 江苏 yielded lacquer wares bore the seal of "*Dong yang* 东阳". The Dukes of Ruyin and Dongyang were enfeoffed in the early years of Western Han. Both apparently had their own lacquer production agencies.

The inscriptions of the Ruyin lacquer wares were longer

and the contents included "Duke of Ruyin," name of the vessel, volume of the vessel, date of the reign of the Duke, name of producer, etc. The producer of Ruyin lacquers was "ru yin ku 女阴库". The glyphs of "ji 己" and "xiang 襄" in the scripts of "ku ji 库己" and "ku xiang 库襄" were the names of the directors of "ru yin ku女阴库". The glyph of "nian 年" in the script of "gong nian 工年 " was the craftsman's name. Apparently, "ru yin ku" was the official department managing the lacquer industry for the Duke of Ruyin. The lacquer production of "ru yin ku" was uninterrupted from the first year to the eleventh year of the reign of Duke of Ruyin. It was a regular lacquer production office. Each of the lacquer inscriptions recorded the name of only one worker. Within the span of eleven years, the same names reappeared several times, and only four different names of workers were ever seen on the inscriptions. Obviously, the scale of production and the net output of the "ru yin ku" was quite small. All the lacquers produced by "ru yin ku" were inscribed with "Duke of ru yin". It is most likely that the lacquers made by "ru yin ku" were mainly consumed by the household of the duke.

## IV. "Shi Ting", "Shi Fu" and "Xiang"

The lacquers of the late Warring States and Qin eras were often stamped with their identities. For instances, the lacquers yielded from the Qin tombs at Shuifudi 睡 虎地, Yunmeng 云梦, Hubei 湖北 bore the seals of "*xian ting* 咸亭" (Figs. 6:1–4 and 6), "*xian bao* 咸包", "*xu shi* 许市", "*zheng ting* 郑亭", "*ting* 亭", "*ting shang* 亭上", etc. Tomb M1 at Guchengping 古城坪, Xingjing 荥经, Sichuan, which was dated to the late Warring States to Qin, yielded lacquers stamped with the seal of "*cheng ting* 成亭." Lacquers yield from the early Western Han tomb M1 at Dafentou 大坟头, Yunmeng, Hubei bores the seals of "*ting* 亭" and "*ting shang* 亭上".

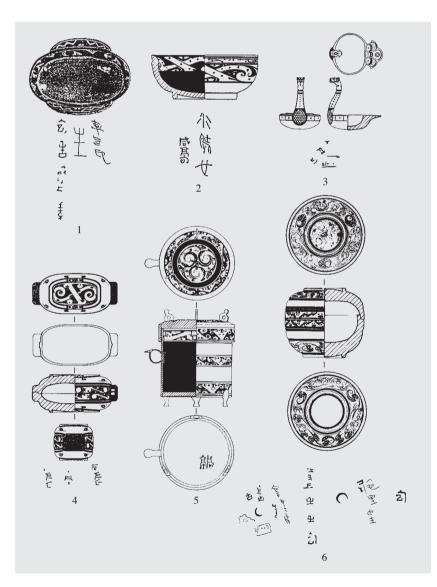


Fig. 6 Lacquer wares with "xian ting" glyphs from Yunmeng and Jiangling
1. cup with handles (Shuihudi M33:34)
2. yu-cup (Shuihudi M46:33)
3. ladle in the shape of phoenix (Shuihudi M9:41)
4. oval-shaped container (Shuihudi M9:51)
5. zhi-cup (Jiangling Jiudian M483:5)
6. cheng-round container (Shuihudi M11:1)

Early Western Han tomb M168 at Fenghuangshan 凤凰 山, Jiangling 江陵, Hubei, and tomb M2 at Gaotai 高 台, Jingzhou 荆州 yielded lacquers bore the seals of "cheng shi cao 成市草", "cheng shi su 成市素", "cheng shi bao 成市饱", and "shi fu bao 市府饱". The lacquers yielded from Tomb M1 at Mawangdui 马王堆, Changsha 长沙, Hunan 湖南 bore the seals of "cheng shi cao 成市草", "cheng shi bao 成市饱" and "nan xiang □ 南乡□" (Figs. 7:2 and 8). Tomb M3 of the same site yielded lacquers with the seals of "cheng shi cao 成市草", "cheng shi bao 成市饱" and "nan xiang □□","南乡□□", and "zhong xiang □","中乡□ ". Tomb M4 at Yinqueshan 银雀山, Linyi 临沂, Shandong yielded lacquers stamped with "ju shi 笞市", (Fig. 8:2), and "shi fu cao 市府草" (Fig. 7). Tomb M1 at Luopowan 罗泊湾, Guixiang 贵县, Guangxi 广西

yielded lacquers bore the seals of "bu shan 布山" (Fig. 8:1) and "shi fu cao 市府草". Han tomb M1097 at Guangzhou 广州 yielded lacquers bore the seal of "pan vu 蕃禺" (Fig. 8:3). Among the glyphs of the seals, "cheng 成" was the acronym of "chengdu 成都"; "xian 咸" was that of "xianyang 咸阳"; the word "ju 笞" in the script of "ju shi 笞市" was the "ju" under the jurisdiction of the Duke of Chengyang 城阳 of Western Han, which is located in the Ju County of modern Shandong Province; "bu shan 布山" was the Shouxian 首县 of Yulin 郁林 prefecture, modern Guiping 桂平 of the Guangxi Zhuang Autonomous Region; "pan yu 蕃禺" was modern Panyu 番禺 at Guangzhou city, which was the seat of the Duke of Nanyue 南越 in early Western Han; "xu 许" was probably the acronym of Xuchang 许昌 of Henan; "zheng 郑" was probably the acronym of

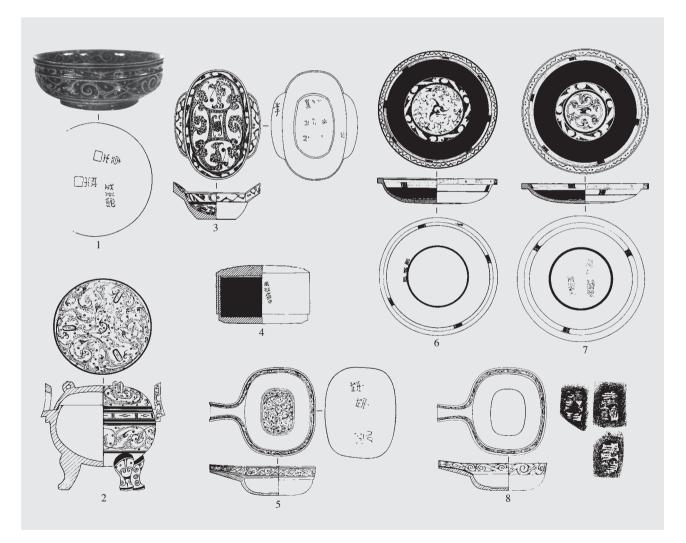


Fig. 7 Lacquer wares with "cheng shi" glyphs from Jiangling and Changsha

1. *yu*-cup (Fenghuangshan M168:170) 2. *ding*-tripod (Mawangdui M1:100) 3. cup with handles (Gaotai M2:7) 4. *lian*-round cosmetic container (Gaotai M2:18) 5. *yi*-ladle (Fenghuangshan M168:111) 6. plate (Gaotai M2:4) 7. plate (Gaotai M2:294) 8. *yi*-ladle (Mawangdui M1:429)

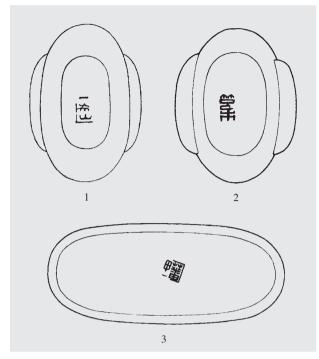


Fig. 8 Han period lacquer wares with glyphs
1. cup with "bu shan" glyphs (Luopowan M1:291)
2. cup with "ju shi" glyphs
3. lid of a cosmetic container with "pan yu" glyphs (Guangzhou M1097:53)

Xingzheng 新郑 of Henan. The "ting 亭" in the seals of "cheng ting 成亭" and "xian ting 咸亭", the "shi 市" in the seals of "cheng shi 成市" and "ju shi 筥市" should implicate "shi ting 市亭", a low level local authority in the administrative hierarchy. The coexistence of the seals of "cheng shi 成市" and "shi fu 市府" on the lacquer wares of Fenghuangshan, Jiangling, Hubei suggests that "ting", "shi", "shi ting" and "shi fu" meant the same thing. Finally, the "XX xiang 某乡" seals often seen on the lacquers of the Qin and Han times should be produced by the villages under the jurisdiction of county.

The late Warring States and Qin tombs yielded considerable number of lacquer wares that did not stamp with the scripts of "*ting*" or "*shi*"; instead, they were incised with the last names of craftsmen, names of the neighborhood, or emblems. They were likely produced by privately owned lacquer workshops. During the Western Han era, the lacquers produced by independent workshops sometime bore the seals of the names of the workshops. For instance, the Western Han tombs M3 and M4 at Huoshan 霍山 County, Anhui yielded lac-

quer cups with "huang shi" seals on the back of the handles. They were seen as trademarks of the Huang Shi lacquer workshop. This era also witnessed the practice of simple incision of craftsmen's names on the lacquers. Usually they were etched with fine lines on the most unnoticeable location of the wares. The word "gong" was incised in front of the personal names. In addition, some independent workshops used stamps to identify themselves. Some reports indicate the insignia was stamped on the lacquer wares. Some reports claim that the insignias were enclosed by hand-painted frames. Moreover, some of the independent workshops wrote with paint the dates of production. Although the number of unearthed Eastern Han lacquer wares dwindled significantly, identities of independent workshops were found on them. Yet, they were unanimously writing of paint.

In conclusion, the royal lacquer wares produced by the state-run workshops of Shu and Guanghan prefectures and the departments of "*kao gong*" and "*gong gong*" ranked highest in quality. They were followed by the non-royal lacquers produced by the state workshops. The products of the independent workshops were obviously the lowest in quality. This might attributable to the inferior skills of the independent craftsmen and their products were not marketed to the high elite. In addition, the private lacquer industry of this time might have been rigorously regulated by the state.

#### **Reference Works**

1. Liu Qingzhu 刘庆柱 (2000). "Handai guqian yu Handai gongguan yanjiu 汉代骨签与汉代工官研究" (Han Period Bone Seals and the Study on Han Period *Gongguan*). *Gudai Ducheng Yu Diling Kaoguxue Yanjiu* 古代都城与帝陵考古学研究 (An Archaeological Study on Ancient Capitals and Imperial Mausoleums) pp. 260– 266. Beijing: Kexue Chubanshe 科学出版社.

2. Yu Weizhao 俞伟超, Li Jiahao 李家浩 (1979). "Mawangdui yihao hanmu chutu qiqi zhidi zhu wenti 马王堆一号汉墓出土漆器制地诸问题" (A Couple of Issues on the Production of Lacquer Wares from Han Period Tomb 1 at Mawangdui Han Period Tomb 1). *Mawangdui Hanmu Yanjiu* 马王堆汉墓研究 (A Study of Mawangdui Han Period Tombs). Changsha: Hunan Renmin Chubanshe 湖南人民出版社.

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