Wooden Boats and Shipping Organizations in the Middle Reaches of the Yangtze River (1700-1850)

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Abstract

Between 1700 and 1850, there were an estimated 125,000 wooden boats in the middle reaches of the Yangtze River, with a load capacity of more than two million tons. The transport capacity and the wide distribution of these boats demonstrate that the relationship between multitiered markets was growing closer, and China's national market was expanding more widely. In this period, direct supervision from government was so difficult to implement effectively that the task of ensuring the safety and order of water transportation fell to the commercial agencies, such as boat brokers 船行 and quay controllers 堙头. The wooden-boat shipping business in the middle Yangtze River during the Qing dynasty was not in a totally disordered state. The spontaneously formed boatmen gangs 船帮 and boatmen lineages 船民家族 played an active and influential role in a specific area of local river transportation in the middle Yangtze River, illustrating that local arbitration and mediation mechanisms were formed to deal with socioeconomic conflicts among shipowners, merchants, local communities, and local governments in the regional commercial transportation network. However, it was not until the end of the nineteenth century that a powerful shipping institution or merchant's organization that could effectively regulate the water transportation emerged, nor were there socioeconomic mechanisms set up to deal with the many kinds of shipping disputes that existed in the reaches of the middle Yangtze.
Introduction

Scholars debate whether China's national market came into existence before experiencing the impact from western Europe and the Taiping Heavenly Kingdom Rebellion in the middle of the nineteenth century. Some scholars emphasize the self-sufficiency of China's regional economy and the difficulties associated with national market integration in such a vast country as China.¹ The opposite opinion illuminates the rapid development of China's long-distance trade from the late sixteenth century, arguing that China had indeed formed an integrated national market before the middle of the nineteenth century.² Yet although the theoretical basis for a national market was generated from historical experience in Europe, we cannot ignore a similar developing tendency towards national market integration in China after the so-called eighteenth century “Great Divergence,”³ nor can we deny the characteristics of China's national market integration.

The commodities being delivered and the trade exchanges along the Yangtze River relied on shipping transportation. The number, carrying capacity, and social organization of commercial wooden boats is an excellent perspective to observe the degree of national market integration. According to research on the shipping industry of the lower reaches of the Yangtze River by Matsuura Akira 松浦章 and Fan Jinmin 范金民, the richest shipping merchants in Shanghai established a Shipping Merchant Guild in 1715, made up of shipping businessmen with large capital and who had great influence in local public affairs in Shanghai 上海, China's most prosperous commercial center.⁴ Similarly, the studies research of Jiang Tianfeng 江天凤 and

⁴ Tianfeng Jiang (ed.), Changjiang hangyun shi (gudai bufen) [Navigation history of Yangtze river (ancient part)] (Beijing 1992) 350-351; Jinmin Fan, ‘Qingdai Liujiagang de douchuan zihao’ [Brands of the Bean Boats in Liujiagang in the Qing Dynasty], Shilin 3 (2007); Jinmin Fan, ‘Qingdai qianqi shanghai
Chiu Peng-sheng 邱澎生 shows that in the upper reaches of the Yangtze River, with Chongqing 重庆 as the center, the official system that governed boat brokers and quay controllers was abolished by the local government in 1760. All kinds of shipping organizations and the Merchant Guild of Eight Provinces 八省商人会馆 were so powerful that they were empowered to assist the Chongqing local government in resolving shipping disputes. Thus, a regional arbitration and mediation mechanism in shipping industry came into existence there as well as in the lower reaches of the Yangtze River. So, how about the shipping industry in the Middle Yangtze River?

The development of markets and their networks in the Middle Yangtze River in the eighteenth and nineteenth centuries has become a key to understanding how widely and deeply China’s national market expanded geographically. The middle reaches of the Yangtze River, including Hubei 湖北, Hunan 湖南, Jiangxi 江西 provinces – also known as central China – formed a channel of communication between coastal and inland areas in the national trade network in late imperial China. In the late Ming dynasty (1550-1644), commodity circulation along the Yangtze River was mainly concentrated in the lower reaches. In the Qing dynasty (1644-1911), along with the development of Hubei, Hunan, Sichuan 四川 and other inland provinces, long-distance commodity transportation along the Yangtze increased dramatically, and the national market expanded to the middle and upper reaches. A number of cities developed and attracted merchants from other regions, among them Hankou 汉口, which became the most important town for cargo transfer in the middle reaches of the Yangtze River.

During the flourishing period of the eighteenth and nineteenth centuries, along with the rapidly growing population and expansion of domestic markets, the wooden boats in the middle reaches of the Yangtze River provided a basic transportation service for the large amount of grain exported from, and the increasing commercial demand in this region. This article attempts to participate in the debates on China’s national market integration through an investigation of the wooden

de hangye chuanshang’ [Shanghai shipping industry businessmen in the early Qing Dynasty], Anhui Shixue 2 (2011); Matsuura Akira, Qingdai shanghai shachuan hangyunye shi yanjiu [Research on the history of Shanghai shipping industry in the Qing Dynasty] (Osaka 2004).

5 Tianfeng Jiang (ed.), Changjiang hangyun shi (gudai bufen) 354-355; Peng-Sheng Chiu, Guofa yu banggui. Qingdai qianqi chongqingcheng de chuanyun jiufen jiejue jizhi [National law and gang’s regulations. The disputes resolution mechanism of Chongqing City in the early Qing Dynasty]; Peng-Sheng Chiu and Xiyuan Chen (eds), Mingqingtai fahuiyunzu zhong de guanli yu wenhua [Power and culture in the legal operation of the Ming and Qing Dynasties] (Taipei 2009) 275-334.
boats and the organization of shipping in the middle reaches of the Yangtze. By analyzing the development of wooden boat transportation and shipping organizations, the author attempts to answer the following questions: What was the scale of the transportation operation with wooden boats in the middle reaches of the Yangtze River in late imperial China? Were there any kinds of shipping organizations in place, as there were in the upper and lower reaches? Were any arbitration and mediation mechanisms set up for dealing with economic disputes and maintaining social order in the shipping industry? If yes, to what degree did these work (in a specific river, in all the middle reaches, or the reaches of the entire Yangtze River)?
Wooden boats: Number and tonnage

The water transportation system in the middle reaches of the Yangtze River refers to the network formed by the main stream of the middle reaches of the Yangtze River, the Dongting Lake 洞庭湖, the Poyang Lake 鄱阳湖, and tributaries in Hunan, Hubei, and Jiangxi provinces, as well as secondary ports and branches of these tributaries. This section estimates the number and tonnage of the wooden boats that appeared in the middle reaches of the river during the Qing economic boom.

Survey records from the 1930s provide a rough estimate of the number and load of wooden boats sailing on the Yangtze River, which can be confirmed by literature from the traditional era, reflecting the situation in the traditional period together. According to the statistics from the Jiangxi Province in 1935, there were 25,709 wooden boats in the entire province. Statistics on the registration of wooden vessels in the Hubei Province in 1937 showed that there were 36,469 wooden boats with total load of 127,000 tons, at an average of 3.48 tons per boat. Along the middle Yangtze River, the number of wooden boats in each province would be roughly equal, with an average of 25,000. According to the records on the tonnage of wooden boats passing through customs posts along the Yangtze River, the average load was

6 Hunan Province is located on the south bank of the middle reaches of the Yangtze River. The four rivers of Hunan: the Xiang River 湘江, Zi River 资水, Yuan River 湘江, and Li River 澧水, and their tributaries, connect the towns and ports inside and outside Hunan Province. The transportation capacity of the Hunan river system developed without precedent from the early Qing dynasty. Tianfeng Jiang (ed.), Changjiang hangyun shi (gudai bufen); Juan Huang, Hunan jindai hangyunye yanjiu [Research on Hunan modern shipping industry] (Changsha 2015).

7 Hubei Province is located on the north bank of the middle reaches of the Yangtze River. In addition to the main stream of the Yangtze River, there are mainly thirteen inland rivers in Hubei, including the Han River 汉水 and its tributary river, the Dan River 丹江, with a total navigable length of more than 2,800 kilometers. Hongyou Liu (ed.), Hubei hangyun shi [Navigation history of Hubei] (Beijing 1995) 172; Zhenghong Xiao, 'Qingdai hanjiang shuiyun' [Han River transport in the Qing Dynasty], Shannxi Shifen Daxue Xuebao 4 (1988); Xiqi Lu and Sheng Pan, 'Hanshui xiayou hedao de lishi bianqian' [Historical changes in the lower reaches of Han River], Jianghan Luntan 3 (2001).

8 Jiangxi Province is located on the south bank of the middle reaches of the Yangtze River. The most important navigable river in Jiangxi is the Gan River 桂江, which connects the Yangtze River with the Pearl River 珠江 in Guangdong. This trade route was the most thriving path from the late Ming dynasty to the period of the Guangzhou System. In addition, the Xin River 信江, which connects the Yangtze River with the Qiantang River 钱塘江, and the Chang River 昌江, which connects Jingdezhen 景德镇 with Poyang Lake, are also important elements of the river transportation network in Jiangxi Province. Jusheng Tan, Jiangxi sheng dili [Jiangxi Province Geography] (Nanchang 1989) 44; Tan Xu, 'Mingqing shiqi Jiangxi de shangye chengzhen' [Commercial towns in Jiangxi during the Ming and Qing period], Zhongguo Jingji Shi Yanjiu 3 (1998).
37.6 tons. However, for the boats passing through the Native Customs 常关, the average load was 15.1 tons. Smaller boats, which only traveled on tributaries and never entered the Yangtze River, carried less than 10 tons, sometimes even less than 1 ton. These kinds of boats might account for about 90 percent of the total. Based on the data, we can reach a preliminarily conclusion about the general situation of the shipping industry in the middle reaches of the Yangtze River and its tributaries in Jiangxi, Hunan, and Hubei provinces in the 1930s. On this basis, the data will be examined, proved, or corrected, according to detailed information from earlier years or from specific streams.

Firstly, wooden boats sailing along the main stream of the middle Yangtze River should be added to the total number, especially boats in Jiujiang 九江 and Hankou. According to the archives of Jiujiang Customs and reports from local governors, about 40,000 to 60,000 boats passed through Jiujiang every year during the period of Qianlong’s reign. Upstream, there were at least 10,000 wooden boats berthed in the wharfs of Hankou. At the end of the Qing dynasty, there were about 24,000 boats from Sichuan, Hunan, Hubei, Jiangxi, and other places berthing in Hankou, with a load capacity of 1 million tons. The average tonnage of a single boat was about 40 tons.

Secondly, the early twentieth-century records of the Jiangxi Province provide an overall picture of Jiangxi’s wooden boats. There were more than one hundred kinds of sailboats in Jiangxi, with complicated

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9 Tianfeng Jiang (ed.), Changjiang hangyun shi (jindai bufen) 415.
10 Jiujiang is located at the junction of Poyang Lake and the Yangtze River, and is the only route for the commodities transferred between the lower Yangtze and Guangdong in the Ming dynasty. From the late Ming dynasty to the Qing dynasty, the tariff in Jiujiang Native Customs had been increasing, and it netted the highest tax revenue of all the customs points along the Yangtze River in the early Qing dynasty. Tan Xu, ‘Mingqing shiqi Jiangxi de shangye chengzhen’; Tan Xu, ‘Qingdai qianqi de jiujiangguan jiqi shangpin liutong’ [Jiujiang native custom and its commodity circulation in the early Qing Dynasty], Lishi Dangan 1 (1999).
11 Hankou developed into a flourishing town from the late Ming dynasty. During Wanli’s reign of the Ming dynasty, Hankou became a grain transport port in Huguang Province 湖广行省 and a central port for salt distribution, and it promptly developed into the most prosperous commercial city in the middle reaches of the Yangtze River in the early Qing dynasty. Mingxiu Pi and Yong Wu (eds), Hankou wubainian [Five hundred years of Hankou] (Wuhan 1999) 14-15, 25.
14 Matsuura Akira, Qingdai neihe shuiyun shi yanjiu, 214-216.
names and shapes.\textsuperscript{15} The total number of boats calculated by the Public Security Bureau on Water of the Jiangxi Province in 1934 was 24,935.\textsuperscript{16} The number of small boats with a load capacity of less than 15 tons was the largest category, accounting for more than 67 percent of the total. Boats carrying less than 5 tons accounted for 35 percent. The proportion of heavy-load capacity boats was low, and most of them sailed from large ports or on the main stream of the Yangtze River. According to these data, we can infer that the average load for boats in Jiangxi in the Qing dynasty was about 6 tons.\textsuperscript{17}

Thirdly, it is estimated that the number of boats berthing in Hunan would have been at least 24,700 in 1757.\textsuperscript{18} Other relevant statistics show that the total number of wooden boats in Hunan reached 30,000 around 1840, with a total tonnage of 600,000 and an average load of about 20 tons per boat.\textsuperscript{19} Comparing the two kinds of data, it is possible to estimate that there were about 25,000 to 30,000 boats active in Hunan in the Qing dynasty. As for the load capacity of Hunan boats, one might conservatively estimate that the average would have been about 10 tons.\textsuperscript{20}

The data about the wooden boats sailing in Hubei during the Qing dynasty is quite limited. All we know for certain is that, during the period of the Qianlong’s reign, there were about 3,000 boats sailing from Xiangfan port襄阳港, the biggest port along the Han River, and about 40 to 60 wooden boats berthed in other small or medium-sized ports, with the number not exceeding 100.\textsuperscript{21} Since most of the boats

\textsuperscript{16} Jiangxi sheng neihe hangyun shi bianxie bangongshi (eds), Jiangxi sheng neihe hangyun shi ziliao, 636.
\textsuperscript{17} Jiangxi sheng neihe hangyun shi bianxie bangongshi (eds), Jiangxi sheng neihe hangyun shi ziliao, 111-112.
\textsuperscript{18} Hunan sheng li chengan, Binglv guanjin, vol. 12, yiqie daxiao chuanzhi bianlie haoci yu chuanshao fenshu zhouchuan chuangan xingming shangei yinzhuo yipin chayan, 14-61.
\textsuperscript{19} Tianfeng Jiang (ed.), Changjiang hangyun shi (gudai bufen), 16.
\textsuperscript{20} Matsuura Akira, Qingdai neihe shuiyun shi yanjiu Hulv cangku, vol. 23, ge futing zhouchuan maiyu cangku ji difang shizhen xuizhi zhanzheng qingxing, 6; Dongya tongwenhui (eds), Zhina shengbie quanzhi [Gazetteers of provinces of China] 10 (Hunan 1918) 284, 314-316; Rifeng Tan, Xiangxiang shidi changshi [Common sense of Xiangxiang湘乡county's history and geography] (Hunan 1935) 13.
\textsuperscript{21} Bofeng Zhang, Jindai hanjiang shuiyun bianqian yu quyu shehui yanjiu [Research on modernization of Han River transport and regional society] (PhD Dissertation Huazhong Normal University 2014) 76; Ming Zhang and Guoyang Wang, Huanggang diqu shuiyun zhi [Water transport of Huanggang Area] (Shanghai 1991) 74; Hongyou Liu (ed.), Hanbi hangyun shi, 180, 187, 188; Gang Li and Hongli Wei, ‘Lun danjiang shuiyun yu mingqing shanxi shangpin jingji de fazhan’ [Dan River water transport and the development of Shaanxi commodity economy in Ming and Qing], Renwen Zazhi 3 (2004).
engaged in water transport in Hubei were from Hunan, we might be able to speculate on the load capacity of Hubei boats according to the situation of the Hunan boats.

To sum up, there were hundreds of kinds of wooden boats sailing on the main stream and tributaries of the middle reaches of the Yangtze River, although the quantity and load capacity are difficult to estimate accurately. This section thus provides a rough number and estimated tonnage of wooden boats in the middle reaches from the eighteenth to the mid-nineteenth centuries: (1) There were at least 50,000 boats in circulation in the main stream of the middle Yangtze River, with an estimated average load of 40 tons; (2) the author accepts that the average number of boats in the three provinces of Hunan, Hubei, and Jiangxi was about 25,000 each, with the average tonnage estimated at 6 tons; (3) based on these estimates, it is possible to reach a rough estimate, namely, between the eighteenth and the mid-nineteenth centuries, there were about 125,000 wooden boats sailing in the middle branches of the Yangtze River, with a total carrying capacity of about 2.45 million tons. According to the information above, it is not difficult to realize that in the early Qing dynasty, wooden boats in the middle reaches of the Yangtze River had considerable capacity and were widely distributed around, and adapted to, local waterway transport, which indicates that the multitiered markets in the middle reaches of the Yangtze River were in close contact.

Managers of shipping society: Boat brokers 船行 and quay controllers 埠头

According to the previous estimate, from the eighteenth to the mid-nineteenth centuries, there were about 125,000 wooden boats of all sizes in the branches of the middle reaches of the Yangtze River. On a calculation of five to eight people per boat, the number of shipowners, boatmen, sailors, and helmsmen in the middle reaches of the Yangtze would have been between 625,000 and 1 million. Most of them were employed in commercial transportation. Due to the mobility of shipping workers, there were often cases of lawless shipowners or boatmen stealing goods or even killing clients, which negatively affected the trade safety and social order of commercial

22 Matsuura Akira, Qingdai neihe shuiyun shi yanjiu, 184, 221, 233, 235, 268.
transportation. As a result, the high risks associated with wooden-boat shipping caused various disputes between shipowners, brokers, and traveling merchants. So, were there any regulations in place to control the large population of shipping workers and to deal with disputes that occurred along the rivers during the process of delivering cargos?

The answer is: yes. The underlying administrative personnel in the county-level government of the Qing dynasty had the responsibility for supervising and managing the shipowners and boatmen networks directly, either through the county magistrate himself or through lower-level civil servants. It turned out, however, that the administrative cost was too high to bear or the effects were not adequate, plus direct supervision was difficult to implement effectively over a long period. Therefore, the task of ensuring the safety and order of water transportation fell to the commercial agencies, such as boat brokers and quay controllers.

In the Qing dynasty, almost all the prefectural and county administrators governed boat brokers and quay-controllers according to the regulations of the Great Qing Code, in principle, through limiting their numbers. According to the Code, boat brokers and quay controllers had to register and pay commercial tax to the local government for a business license before they could operate as intermediary agents between the traveling merchants and the shipowners. Boat brokers and quay controllers collected brokerage charges from both sides and provided certain security services in return, while apportioning forced labor (corvée) of the local government to commercial boats. Shipowners who registered and paid the agency fee to the boat brokers were legally qualified to obtain business through the brokers. If a shipowner was responsible for transportation losses, the broker who introduced him to the merchants bore joint liability. As for the fees, such as freight charges, customs charges, barge loading fees, the money

23 Guoan Yang and Bin Xu, ‘Jianghuidaoshui, Shuibaojia yu mingqing lianghushui sheshui kongzhi’ [Bandits, baojia and social control on the waters of Hunan and Hubei in Ming and Qing Dynasties], Mingdai Yanjiu 17 (2011); Rigen Wang and Bin Cao, Mingqing hehaidao de shengchong ji jiqi zhili yanjiu [Research on the formation and governance of the water pirates in Ming and Qing] (Xiamen 2016); Yao Chen, ‘Mingqing xiangjiang hedao sheshui guanli zhidu ji ji yi yanbian’ [Social management system on Xiang River and its evolution during the Ming and Qing Dynasties], Zhongguo Jingji Shi Yanjiu 1 (2016).
24 Yao Chen, ‘Mingqing xiangjiang hedao sheshui guanli zhidu ji ji yi yanbian’.
25 Hongzhong Yan, ‘Qing zhengfu dui yahang de guanli ji ji wenti’ [The Qing government’s management of the intermediaries and related issues], Qingshu Dazue Xuebao 4 (2012).
26 Hunan sheng li chenggan, Binglv guanjin, vol. 12, yi qie daxiao chuanzhi Bianli hai yu chuan shao fenshu zhouxian cunzhuang chuanhu xingmingshang shanye yinzhaoyipin chuyan, 14-61.
for worshipping at temples along the waterway, and other expenses that arose from the transportation process, a detailed contract between shipowners and merchants needed to be made in advance, with the name of the broker(s) signed as a guarantee.

During the Qing dynasty, boat brokers and quay controllers of the water transportation business were common in Hubei, Hunan, and Jiangxi, and their number related to the scale of the commodity economy and the degree of development of water transportation.27 There were a large number of boat brokers in big ports, such as in Hankou, where there were eleven boat brokers who specialized in shipping business to Xiangyang.28 In some places, the boat brokers were rich and powerful in the local economy. During Daoguang’s reign, the largest boat broker in Poyang port, with the name of Weigong Xiao, spent a lot of money extending and repairing a local well-known temple and became a local tycoon in the shipping business.29 Although the development of the inland shipping industry was seriously impacted by foreign shipping companies from the late Qing dynasty until the end of that dynasty, there still were boat brokers or quay controllers in almost all the prosperous cities and ports.30

In terms of institutional arrangements, local boat brokers were established to reduce transportation risks and ensure safety. However, in the case of a transportation accident or loss of cargo, it was still difficult to decide who should take responsibility.31 The length of the voyage, the destination of the cargo, the contents of the contractual document, the specific cause of the loss, and other factors could affect the final judgment concerning compensation. For example, if there was an accident where the shipowner hired other boats to deliver the goods, or rescheduled the transit of the goods without notifying the owner of the goods, the liability for the loss would be unclear in the event of an accident. When loss occurred, the merchants who hired the boats for transportation needed to negotiate with the shipowners or boat brokers to deduct the cost from...

27 Ibid., 14-61.
28 Matsuura Akira, Qingdai neihe shuiyun shi yanjiu, 209, 215; Zhongxin Huang, ‘Qingdai yilai hanshui zhongyou de shangye zhongxin ji qi bian duo’ [The commercial center of the middle reaches of Hanshui and its changes since the Qing Dynasty], Jingdai Shi Xuekan 10 (2013); Xingjing Sheng (ed.), Jiangxi neihe hangyun shi [Jiangxi inland navigation history] (Beijing 1991) 8; Tan Xu, ‘Mingqingshi qingjiang xingxi de shangye chengzhen’.
29 Xingjing Sheng (ed.), Jiangxi neihe hangyun shi, 89.
30 Hunan diaocha ju (eds), Hunan shangshi xiguan baogaoshu [Hunan commercial customs report] (Changsha 2010) 121-122.
31 Hunan diaocha ju (eds), Hunan shangshi xiguan baogaoshu, 122.
the contract. Such loss of time and energy could also be regarded as an additional transportation expense, which led to the reduction in, or even complete loss of the commercial profits of traders.\textsuperscript{32}

In addition, boat brokers who charged both businessmen and shipowners could be the ones causing disputes. The intermediary fee of boat brokers was generally 3 percent of the value of the cargo. In real business transactions, though, the situations differed from place to place.\textsuperscript{33} As a result, there were often disputes caused by boat brokers over excessive charges. All these cases exposed the illegal profit-making activities of the brokers.\textsuperscript{34}

A unified insurance system and rules in shipping business were still far from fully formed in the Qing dynasty. In Changsha 长沙 and Xiangtan 湘潭, if a shipowner fled with the cargo, the broker would not only be compensated for the loss, but would also hand the shipowner over to the local government. If the same situation occurred in Liuyang 浏阳 county, boat brokers had to auction off the shipowner’s boat for compensation. In Yongshun 永顺 county, boat brokers had to pay

\textsuperscript{32} Ibid., 128.
\textsuperscript{33} Ibid., 122; Xingjing Sheng (ed.), Jiangxi neihe hangyun shi, 89.
\textsuperscript{34} Tan Xu, ‘Mingqing shiqi Jiangxi de shangye chengzhen’; *Hunan sheng li chengan*, Hulv shichan, vol. 34, Leshi yongjin yahang wei li yu maizhu maizhu mingxia duoqu yongqian, 3-6.
compensation to the merchants in advance, then withhold income from the shipowner as penalty. In Longyang 龙阳 county, all the boat brokers accumulated a kind of communal fund, as a security deposit for compensation for any transportation losses. However, there were also brokers offering no guarantees in some other places.

Where it was not possible to coordinate the dispute, the only way forward was prosecution by local officials. Of course, the wooden-boat shipping business in the middle Yangtze River during the Qing dynasty was not in a totally disordered state. In order to secure trust and business from merchant clients, shipping workers spontaneously set up various organizations and formed effective shipping organizations and dispute resolution mechanisms for specific rivers.

Shipping organization: Boatmen gangs 船帮 and boatmen lineages 船民家族

Besides obtaining businesses from boat brokers and quay controllers, shipowners or boatmen themselves established shipping organizations to gain the trust of their clients. What kinds of shipping organizations were there in the eighteenth and nineteenth centuries? Did these organizations constitute effective dispute resolution mechanisms in the middle reaches of the Yangtze River? In the traditional period, the boatmen often worked together as groups. There are two kinds of shipping organizations found in the regional records of the middle Yangtze River: common boatmen gangs and rare boatmen lineages.

Boatmen gangs were social and economic organizations spontaneously created by shipowners. At present, we are not sure when and where the earliest boatmen gangs appeared in the middle reaches of the Yangtze River, but it can be confirmed that during the period of Qianlong’s reign, a large number of boatmen gangs emerged in Hubei, Hunan, and Jiangxi, and these became the main social and economic organizations in the area. Boatmen gangs in Jiangxi, Hunan, and Hubei were generally based in small watersheds, named after their port, or river, or province of origin, such as Jiangxi’s Ganzhou gang 赣州帮, Fuzhou gang 抚州帮, Guangxin gang 广信帮, Anren gang 安仁帮. In

35 Hunan diaocha ju (eds), Hunan shangshi xiguan baogaoshu, 122-123.
36 Ibid., 121-122; Tianfeng Jiang (ed.), Changjiang hangyun shi (gudai bufen), 354; Hongyou Liu (ed.), Hubei hangyun shi, 165-166.
37 Jiangxi sheng neihe hangyun shi bianxie bangongshi (eds), Jiangxi sheng neihe hangyun shi ziliao, 733.
Hubei, there were Hanzhong gang 汉中帮, Xing'an (Ankang) gang 兴安(安康)帮, Baihe gang 白河帮, Yunyang gang 郧阳帮 in the upper reaches of Han river, and Henan gang 河南帮, Hubei gang, Hunan gang, and Jiangxi gang in the middle and lower reaches of Han river. In the late Qing dynasty, some small boatmen gangs integrated and formed a powerful boatmen gang. For example, in 1903, the “Xinghanyun” gang 兴汉郧帮 was set up by other smaller gangs who then created a Merchant Shipping Office in Hankou.\textsuperscript{38} There were also countless large and small boatmen gangs in Hunan, some of whom traveled to the rivers outside the province.\textsuperscript{39} The Yuwang Palaces 禹王宫 or Hunan Merchant’s guilds built in the Han River Basin were probably related to the Hunan boatmen gangs.\textsuperscript{40}

Most of the boatmen gangs that controlled shipping on specific local rivers were privately organized in a self-governing manner, meaning they were not registered social organizations with the government and were sometimes even called “secret societies”. The boatmen gangs often selected their head by means of elections in a temple, which would also be used as a place for member gatherings. Boatmen gangs charged their members a certain fee and offered a series of internal operating mechanisms.\textsuperscript{41} For example, during the period of Qianlong’s reign, in Zhuzhou 株洲 port – the most popular port in the near upper reaches of Xiangtan – there were boatmen gangs who established a General Yangsi Temple 杨泗将军庙 as their gathering place. On the sixth day of the sixth lunar month of the year, which was also General Yangsi’s birthday, the boatmen would celebrate at the Yangsi Temple and discuss the major events affecting the gang. All the boatmen in Zhuzhou port had to participate in the boatmen gang and pay a membership fee to obtain priority in the shipping business. This membership could be passed down from generation to generation. By contrast, non-member shipowners had to be approved by boatmen gangs and pay an intermediate fee for undertaking the business.\textsuperscript{42} Later, in the early years of Tongzhi’s reign, the Zhuzhou boatmen gang set up a shipping

\textsuperscript{38} Bofeng Zhang, ‘Jindai hanjiang shuiyun bianqian yu quyu shehui yanjiu’ , 75-76.
\textsuperscript{39} Hunan sheng difangzhi bianzuan weiyuanhui (eds), Hunan shengzhizhi [Hunan province gazetteer] 10 (Changsha 2001) 547.
\textsuperscript{40} Bofeng Zhang, ‘Jindai hanjiang shuiyun bianqian yu quyu shehui yanjiu’, 67-72; Fei Yang and Min Pang, ‘Shannxi danfeng longjuzhai chuanbang huiguan ji qi yanju kaolun’ [A study on the boatmen gang guild hall of Longzhai Village of Danfeng County in Shaanxi Province], Wenhua Yichan 1 (2019).
\textsuperscript{41} Hunan diaocha ju (eds), Hunan shangshi xiguan baogaoshu, 121.
\textsuperscript{42} Zhuzhou shi difangzhi bianzuan weiyuanhui (eds), Zhuzhou shizhi [Gazetteer of Zhuzhou City] (Changsha 1995) 235.
bureau and renewed their regulations. The regulations stipulated that (1) the boats could not be overloaded; (2) the boats must be repaired to remain safe; (3) the boats had to be under the supervision of the shipping bureau; and (4) the boats were required to protect the safety of passengers and cargo. While the rules of boatmen gangs varied on other specific local rivers, boatmen gangs always set up regulations to maintain the inner order of the organization and transportation safety.

The various boatmen gangs not only set up strict and detailed regulations to manage their members, but also tried their best to ensure the safety of the crew and cargos during the transportation process. If an accident occurred along the way, the head of the boatmen gang would come forward to deal with the dispute. For example, in the early summer of 1892, a boatmen gang fleet sailed from Shaoyang 邵阳, and, when passing the Gouloumen 崆嵝门, an incident occurred: Gouloumen local shipowners robbed the Shaoyang gang, resulting in the loss of all the cargo. Afterwards, the heads of the Shaoyang boatmen gang came forward to claim compensation and punishment for the Gouloumen boatmen. All the boatmen who were involved in the robbery accepted the punishment under the mediation of local elites before appealing to the government. Shortly after the incident, the heads of the Shaoyang boatmen gang, along with the Gouloumen local elites and local boatmen gangs, jointly agreed on several items of the “Gouloumen Boatmen Gang Regulations”, which were designed to control the Gouloumen local shipowners. The stipulations mainly emphasized that local shipowners should rescue the Shaoyang boats if their boats became endangered. This story indicates how the Shaoyang boatmen gangs were able to handle accidents along the river, and that there were methods to supervise and punish the boatmen of the lower reaches through local boatmen gangs and local elites. It can thus be seen that the boatmen gangs were capable of ensuring their members’ safety in cross-regional commercial transportation, through their multiple social-economic relationships and their power operation.

Besides the boatmen gangs, there were also spontaneously formed boatmen lineages. While it was a rare phenomenon that shipowners formed lineage organizations and developed a monopoly of power on a specific local river, this special situation did exist on the Lianshui River 涟水 of Hunan. The Lianshui River mainly flows through Xiangxiang

43 Hunan diaocha ju (eds), *Hunan shangshi xiguan baogaoshu*, 506-507.
44 Ibid., 507-509.
45 Hunan diaocha ju (eds), *Hunan shangshi xiguan baogaoshu*, 509-510.
county and enters the Xiang River, with a navigable length of 100 kilometers in Xiangxiang county, connecting Baoqing prefecture of Zi River and the Changsha prefecture of the Xiang River. The Lianshui River is deep and wide in spring and summer, acting as an important water transportation channel. The number of wooden boats in Lianshui River reached more than 6,000 in 1757.

The wooden boats and boatmen in Lianshui River were closely related to the quay controllers institution of the government in the Qing dynasty. During the period of Qianlong’s reign, due to Xiangxiang county’s successful shipowner registration and management system, local officials could grasp the information of the shipowners who may be members of Deng, Chen, or Pan lineages, through the quay controllers of the three lineages. The three boatmen lineages undertook the burden of delivering the county-level tax grain and acted as quay controllers for the local government, so as to acquire a monopoly of power in the commercial transportation of the Lianshui River.46

The transportation of goods led to the prosperity of the Lianshui River transportation industry and brought rich profits to the shipowners of the three lineages. Coal and even high-profit mineral sulphurous ore, which was forbidden several times in the period of Qianlong’s reign, were exported through Lianshui River into the Xiang River, through secret smuggling by boatmen lineages members. This context was probably the economic reason for the large number of boats on the Lianshui River. As a result, the three boatmen lineages set up complicated customs and rules to maintain the order of the lineage organization and transportation safety.47

To sum up, in the eighteenth and nineteenth centuries, various shipping organizations active in the middle reaches of the Yangtze River played an influential role in the transportation on specific local rivers, resulting in positive cooperation and fierce competition. The spontaneously formed shipping organizations not only reflected the commercial growth and expansion of China’s national market, but also formed local arbitration and mediation mechanisms in regional commercial transportation, so as to solve the socioeconomic conflicts among shipowners, merchants, local communities, and local governments along the specific rivers. However, until the end

47 Yao Chen, ‘Qingdai Hunan Lianshui heyun yu chuanhu zongzu’ [Lianshui River transportation and boatmen lineages in Hunan during the Qing Dynasty], Zhongguo Jingji Shi Yanjiu 4 (2017).
of the Qing dynasty, there was no economic institution or powerful social union to effectively regulate transportation, and there was no universally effective socioeconomic mechanism to deal with all the disputes and guarantee the safety of water transportation along the entire middle reaches of the Yangtze River.

**Conclusions**

The data in this paper show that about 125,000 wooden boats transported commodities in the middle branches of the Yangtze River between the eighteenth and the mid-nineteenth centuries, and the total carrying capacity reached about 2.45 million tons. Since the early Qing dynasty, wooden boats of various sizes and shapes were widely distributed, connecting commodity markets at all levels in the middle reaches of the Yangtze River.

From the early Qing dynasty, spontaneously formed shipping organizations were set up in the middle Yangtze River, and some internal dispute resolution mechanisms were formed. However, the dispersal and mobility of boat people also brought with it a great deal of competition. Until the end of the Qing Dynasty, there was no powerful shipping institution or merchant's organization in the middle Yangtze reaches to effectively supervise water transportation, nor were there socioeconomic mechanisms to deal with the various kinds of shipping disputes that arose.

This paper shows that the governing system of boat brokers and quay controllers had existed in the middle reaches of the Yangtze until late Qing, and that the merchants and the shipping organizations were not that powerful, which led to a more intensely competitive relationship among the registered middlemen and the spontaneously formed shipping organizations. By comparing the shipping organizations in different reaches of the Yangtze River, we can see an uneven development in capital, social power, and governing mechanisms. There was never an integrated economic and social system along the Yangtze River. All in all, in the eighteenth and mid-nineteenth centuries, the number and carrying capacity of commercial wooden boats in the middle reaches of the Yangtze could support the commodity transportation in different river reaches and long-distance transportation, the relationship between multitiered markets was growing closer, and China's national market was expanding more widely.
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