

"Gang(綱)" of letters on ceramics written in ink found in maritime archaeological excavations

Hisako Ishiguro (Lecturer, Meiji University)

ABSTRACT

Ceramics are one of the major artefact types that are found in maritime archaeological excavations. Some of these ceramics have letters written in ink on them. These letters are categorized as "Gang (綱)". "Gang" is an important historical material to "Gangshou (綱首)", which is the name of a group of leading trade merchants operating during the Song dynasty in the literature records. Gang written on ceramics have several types, such as "gang", "family name + gang", "gangsi (綱司)", and "family name + gangsi". These "Gang" ceramics have been found in ruins on Hakata (博多) and in northern Kyushu in Japan, Mado (馬島) underwater ruins in Korea, and Penghu Island (澎湖島) ruins in Taiwan. It was also collected from under the sea near Hong Kong. In mainland China, these are also excavated from the Nanhai I Shipwreck (南海), Shipwreck of Quanzhou(泉州) Bay, Strata of Song Dynasty in the Nanyue (南越) Palace ruin, and in Guangzhou(廣州). This study examines merchant excavation locations of "Gang" identified ceramics within the maritime archaeological context.

Key words: Ceramics with letters written in ink, "Gang(綱)", "Gangshou (綱首)"

List of Figures

Figure 1: Ceramics with ink writing from Nanhai I(Nanhai, 2018)

Figure 2: Ceramics with writing 'Gang' from the Hakata, (Hakata, 1996)

Figure 3: Map of Ceramics with writing 'Gang'.

Figure 4: Ceramics with writing 'Gang'.

Figure 5: Ceramics with writing 'Gang' from NanhaiI(Nanhai, 2018)

Figure 6: 'Guangzhou Gangshou, 陳德安'(Chen De'an) , Nanhua Chan Temple (Nanhua, 1990)

INTRODUCTION

Nanhai I, a trading ship of the Southern Song period, discovered in 1987, has been salvaged and preserved. Among the large amount of materials found, over 1000 ceramics with writing in ink have been identified. That many have been found in the Nanhai I Shipwreck, a prime example of Chinese maritime archaeology, is important when thinking about ink inscribed ceramics.

These ceramics have characters written on them, but only a few characters, and when, where, and by whom for what purpose those characters were written is still unclear. From the Hakata sites several examples of ceramics with the character '綱'(gang)exist, and connections exist between this and the name for traders '綱首'(gangshou)'from the historical record. 'Gang' ceramics are found in multiple sites in Japan, maritime sites in Korea, and coastal sites in mainland China, as well as Nanhai I.

This paper will examine 'Gang' and maritime sites such as Nanhai I, and the characteristics of the letters found, and consider the meaning of ceramics with ink writing which relate to trade.

EXCAVATION OF CERAMICS WITH INK WRITING

SHIPWRECK NANHAI I

Nanhai is a sunken ship in the ocean on the border of Taishan and Yangjiang city in Guangdong province found in 1987. The discovery and excavation of this ship has connections to Japan: in 1993 a symposium was held in Japan, and items from the shipwreck were displayed overseas(Tanabe,1993).

After 1986, TANABE Shouzo was invited as a foreign specialist of investigations of maritime sites from Japan. Cooperation with the Asian Research Institute of Underwater Archaeology headed by TANABE resulted in the China-Japan Combined South China Sea Underwater Shipwreck Investigation Team being founded in Guangzhou in November 1989, marking the start of joint maritime excavation. However, after this cooperation with Japan ceased, and the excavation efforts stagnated.

In 1999, after the China Maritime Archaeology Research Exploration Association, founded by civilian divers from Hong Kong was started, excavation by the Nanhai I Shipwreck Maritime Archaeology Unit began in April 2001. After 2002, a large scale excavation was made possible by funds from the Chinese government. Under the policy of full excavation and preservation in a different area, the salvage of Nanhai I took place from May to December of 2007.

The Nanhai I is stabilized in the 'Crystal Palace', a facility in the Maritime Silk Road Museum in Guangdong. After the discovery of Nanhai I, reports from the ocean excavation period from 1989 to 2004(Nanhai,2017), the preliminary excavations in the 'Crystal Palace' from 2011(Nanhai,2011), and of further excavation from 2014 and 2015 (Nanhai,2018)have been published. In dating the Nanhai I, the copper coins in the reports point the Qiandao(乾道) Era (1165-1173).

In these reports of three stages of excavation, 1120 items of ceramics with ink writing are recorded (Fig.1). From the enormous quantity of ceramics found in the Nanhai I, the number may seem small, but for over 1000 items of ceramics with writing to be found from a single site is significant.



Figure 1: Ceramics with ink writing from Nanhai I(Nanhai, 2018)

HAKATA SITES

The existence of ceramics with writing was first noted in the Japanese sites around Hakata in Fukuoka. From the Hakata sites, which represent the remains of a merchant Japanese city of the

Middle Ages, in 2017, as the 'Hakata Sites Excavated Items', 2138 items were designated as official Important Cultural Properties. The north of Kyushu was the gateway for material to enter from mainland China and the Korean peninsula, and in the latter half of the 7th century Dazaifu, and a base for foreign exchange, Korokan (鴻臚館) was established.

After envoys to the Tang cease in 894, the Korokan became the place of exchange with foreign merchants. In the 11th century, this function shifts to Hakata from Korokan. After this, until lost to war in the mid-16th century, Hakata served as the city of foreign trade in Japan. Excavation in the Hakata area has continued, and 820 thousand square meters and 300 thousand items have been excavated, and the 221st excavation was undertaken in 2019.

The main type of item excavated from the Hakata sites is ceramics, mostly from China. Ceramics with writing from the Hakata sites has been collected, and from reports from 1977 to 2000 alone, 2239 examples are reported (Hakata,1996.Oba,2003). Ceramics with writing have been reported from archaeological sites near Hakata and Kita Kyushu. Most examples from the Hakata sites date around the 12th century.

CERAMICS WITH INK WRITING FROM VARIOUS SITES

Not only from Hakata sites and the Nanhai I, ceramics with writing can be found in a number of sites around mainland China (Ishiguro,2019). The earliest examples are those from the Yanliaofang site of Nanjing in Jiangsu Province, which date from the 3rd to 5th Centuries (Wang,2014).

Ceramics with writing from periods later than the Yanliaofang site in Nanjing, from the Shui and Tang Dynasties are few in number. From the Luoyang castle remains (Luoyang2014), the Chang'an castle remains in Xi'an (Gong,2016), remains in Changzhou in Jiangsu(Changzhou2015), and remains in Fuzhou in Fujian(Zhang,2016), a few examples have been found. Also, the Châu Tân shipwreck of Vietnam, other than Chinese characters, examples with Indian and Arabic script from the 6th to 10th centuries have been reported (Do,2016) .

Ceramics with ink writing from the Song to Yuan Dynasties are numerous. From Japan's Hakata sites, examples from China's Southern Song period form the core of those found. In Fujian Province, examples from several excavations have been reported (Zhang,1998, Zhang2016). From shipwrecks other than the Nanhai I, the Huaguangjiao 1 of Xisha (Zhang2016), and remains of a Song vessel in Quanzhou Bay in Fujian Province several examples have been excavated (Quanzhou,1987).

Examples are also reported from temple remains (Guangzhou2005.Fuqing2005), and over 70 examples from the Bangqiaozen remains in Shandong Province, the site of a Shibosi in the city of Mizhou from the Northern Song Period exist (Jiaozhou,2014).

Ceramics with writing from the Yuan Dynasty have excavated from sites in Inner Mongolia. 2689 examples from the Yanjialiang remains in Baotou City which served as a hub in the Yuan Dynasty have been excavated (Baotou,2010). A similar transportation hub, the remains of Jininglu in the city of Ulaanbaatar has also yielded ceramics with writing(Chen,2014). Examples have also been found at ceramic producing kiln sites (Ninxia, 1995.Handan, 2015.Jiang,2017)

82 examples of have been found in the maritime site of Mado in Korea (Mado,2013). 10 examples from Penghu Island in Taiwan have also been confirmed (Chen, 1986.Chen,2012). From Malaysia's Sarawak State, 48 ceramics with writing have been reported, and date from the 11th to 13th centuries (Ke,2015). Examples from grave site of the Song and Jin Dynasties have also been found (Jiangxi,2016).

Ceramics with writing dating from after the Ming Dynasty are small in number, but some have been found on the Liuzuotang remains from Baoquanchang in Nanjing in Jiangsu (Nanjing,2006).

HISTORICAL VALUE OF CERAMICS WITH WRITING

CERAMICS WITH ‘GANG’

Ceramics with writing from the Song and Yuan Periods exist in large numbers, and questions of when the writing was done, where, by whom, and for what must be considered. However, individual examples only contain the information of a few letters. Characters common to various ceramics provide important clues. From examples from the Hakata site and nearby sites, the character ‘Gang’ stands out.

The first example of ceramics with writing found in Hakata was one with '張綱' (zhang-gang). This was thought to be a designation of the owner, the individual '綱首'(gangshou) a representative of a merchant group, but KAMEI Akinori has taken '綱' not as a shortened form of '綱首', but as a differentiator of the owner of a product (Kamei,1986). From the 2239 examples of ceramics with writing from the Hakata sites, 221 examples contain ‘Gang’(Fig.2). Examples of ‘Gang’ are also varied in number and area from Japan (Ishiguro, 2018.Fig 3 and Fig 4).

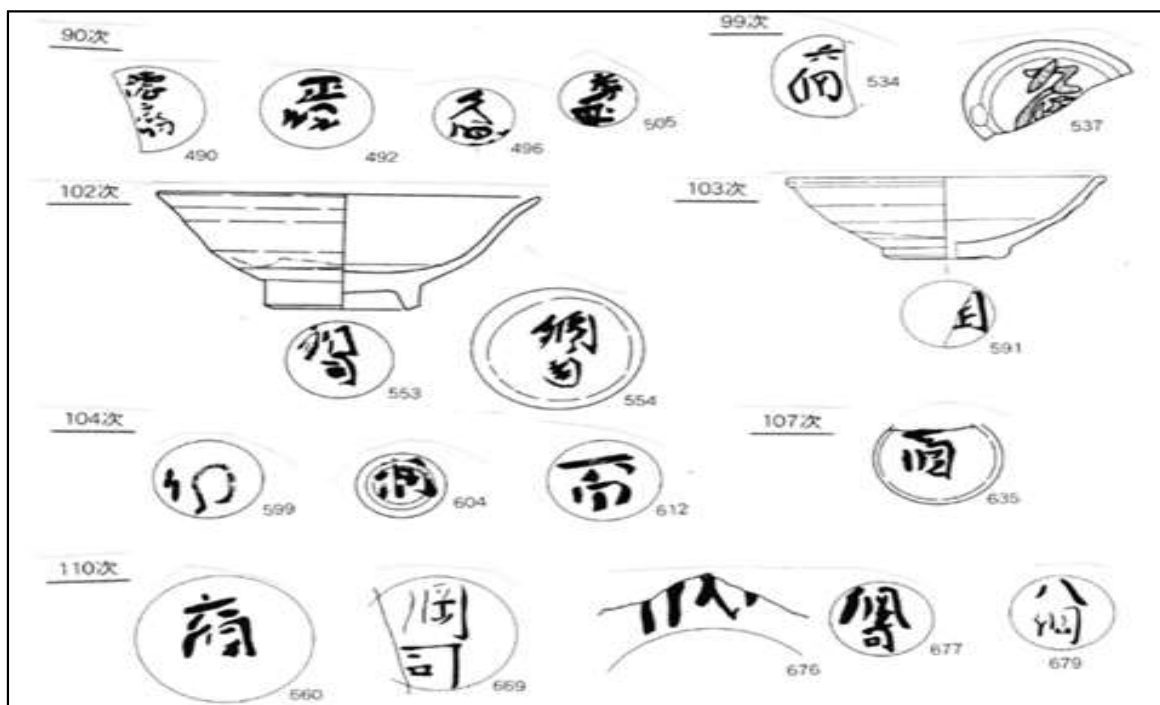


Figure 2: Ceramics with writing ‘Gang’ from the Hakata, (Hakata, 1996)



Figure 3: Map of Ceramics with writing 'Gang'.

	HAKATA	MADO	OTHERS		HAKATA	MADO	OTHERS		HAKATA	MADO	OTHERS
網		10	Hakozaki	上網	1			網司	12	2	Rokaida
			Shiraigawa	正網	1						kumamoto
			Korokan	折網	2						CUHK#
			Quanzhou	莊網	2		Yoro				Quanzhou*
		Arai	Nanhai I	孫網	3					Xinan*	*wooden tags
		penghu	(16)	大網	1			陳網司		3	Penghu
		CUHK#	#collection	大林網	1			漁網司		1	
□網	12	1		丁網	48		Amagasaki, Kyoto	頭網		1	
永網	1	1		張網	1		Dazaifu	徐網		5	
王網	1		Penghu	陳網	2	5		楊網		4	
黃網	2	1		鄭網	1	4		郭網		1	
閔網	1			得網	3			鄧網		1	
久吉網	1			二網	3			何網			Guangzhou
久網	1			八網	6						
許網	2			馮網	1						
九網	14			富網	1						
光網	2			柳網	10						
七網	2			李網	7	1					
主網	1			林網	1	3					
周網	3		Dazaifu	六網	6						

Figure 4: Ceramics with writing 'Gang'.

Ceramics with writing that contain 'Gang' have been excavated from sites outside of Japan. However, in the Song and Yuan periods, examples with 'Gang' have not been found in sites in mainland China. Fujian Province's Fuzhou several hundred examples and Inner Mongolia's

Yanjialing remains in Baotou's over 2000 examples are not reported to contain ceramics with 'Gang'.

Other than the Hakata sites, the next numerous groups of 'Gang' ceramics comes from Korea's Mado maritime site with 45 items. The Xinan shipwreck, a representative of Korean maritime archaeology, sunk in 1323. From this ship, upwards of 100 wooden tags for goods with '綱司' (Gangsi) have been found (Oba,2017). Tags with 'Gangsi' have also been found in a shipwreck in Quanzhou Bay dated to around 1276, as well as a bowl with 'Gang'(Quanzhou1987).

From the Nanhai I, 15 jars with 'Gang' and a pot with 'Gang' and '前公用 (Qiao qian gong yong)' have been found (Fig.5). This is the first time over 10 items with 'Gang' have been confirmed in the same ship. Also, for the same item to have both 'Gang' and '公用' (Gongyong) implies that 'Gang' does not designate an item for common use among a group.

Situated between mainland China and Taiwan, Penghu Island has also been the site of a find of ceramics with 'Gang' (Chen, 1986.Chen,2012). In the collection of the Hongkong Chinese University, there is a Xicun blue glazed kundi with 'Gangsi' and a plate with 'Gang'(Kamei,1986).

While examples of 'Gang' are found in Japan not only in the Hakata sites, but in other inland sites, outside of Japan, they are disproportionately found on the coast, in maritime sites, or in shipwrecks (Ishiguro, 2018. Fig.3 and Fig.4). The only inland example confirmed is a plate with '何綱' (He Gang) from the Nanyue Palace in Guangzhou (Nanyue,2008).



Figure 5: Ceramics with writing 'Gang' from Nanhai(Nanhai, 2018)

‘GANGSHOU’

In the record, examples of 'Gang' with reference to overseas can be found, like the one below from the *Song Huiyao* (宋会要).

雍熙四 (987) 年五月, 遣内侍八人, 齎敕書、金帛, 分四綱, 各往海南諸蕃國勾招進奉, 博買香藥、犀牙、真珠、龍腦。每綱齎空名詔書三道, 於所至處賜之。

“May 987: Eight people were dispatched. They took Imperial rescript and gold and silk fabrics. They were divided into four ‘gangs’. They go to the countries of the South Seas and promote their tributaries. They also buy spices and medicines, rhinoceros, pearls and borneol. Each ‘gang’ has three unaddressed rescripts and gives these rescripts to the country of arrival.”

In this case, the purpose ‘gang’ was the development of tributary states, and the purchase of goods. In this kind of foreign commerce, the top is thought to have been the ‘Gangshou’. All ‘Gangshou’ seen in the *Song Huiyao* the *Song Shi* (宋史) refer to merchants operating overseas.

‘Gang’ appears from the Tang period as the person responsible for official transportation. Also, ‘Gang’ was used to refer to private merchants as well. In the *Pingzhou Ketan* (萍洲可談), the following account can be found (Shiba, 1968).

甲令、海舶大者數百人，小者百餘人，以巨商為綱首、副綱首、雜事，市舶司給朱記，許用笞治其徒，有死亡者籍其財。

“Ordinance: The large size of the ship means that hundreds of people are on board. Small size means 100 people are on board. Let the great merchant be gangshou (綱首), vice gangshou, zazhi (雜事). Shibosi (市舶司) gives them zhuji (朱記). It permits whipping of servants and property management of the dead.”

According to this account, under the ‘Gangshou’, a ‘vice gangshou’ and ‘雜事’(zashi) were selected from high-ranking merchants, and were promised punitive and property rights through the ‘市舶司’(Shibosi). To be the person in charge of a trading vessel, the ‘Gangshou’, permission from the shibosi was required.

In addition, Song merchants required a permit for foreign trade. A ‘公憑’(Gongping) brought to Japan is recorded in the 20th volume of the *Choyagunsai*. A visitor from Quanzhou by the name of Li Chong (李充) sought permission from the 提舉兩浙路市舶司 of Mingzhou, and what was issued by the shibosi was the gongping. This gongping was issued in 1105, the 4th year of Chongning (崇寧), and was dispensed to Li Chong as 綱首 (gangshou) 李充 (Mori, 1938. Kawabe, 2011).

Hakata goshu can be thought of as a generalized term for the Chinese traders trading with Japan in Hakata. It was thought that the ceramics with the letter ‘Gang’ showed possession of the ‘Gangshou’. However, most of these ceramics were of low quality, and not fit for a merchant of the stature of ‘Hakata Goshu’. Because of this, it is now generally thought they refer to the product being possessed by the ‘綱’(gang/ko/go) led by the ‘Gangshou’.

From materials dating to the 12th century, we know that the merchants from China who came to Japan obtained a Gongping from the shibosi, and their representative was the ‘Gangshou’. Even in the copying of sutras within Japan, Chinese merchants styled themselves as ‘Gangshou’.

‘Gangshou’ is attested to in other written sources. Found in the Nanhua Chan Temple in Guangdong is an inscription on 154 out of 360 wooden Arhat statues from the North Song from the Qingli (慶曆) period (1041-1048). On each statue a message from the patron is carved. Among these patrons are two ‘Guangzhou Gangshou’, ‘陳德安’(Chen De’an) and ‘樊密’(Fan Mi) (Fig. 6. Nanhua, 1990). Also, the following text can be found on the stone inscription of the Xiangying Miao, made in the 8th year of the Shaoxing (紹興) era (1138) in Yuanmiaoguan in Fujian Province (Liu, 2010).



Figure 6: ‘Guangzhou Gangshou, 陳德安’(Chen De’an) , Nanhua Chan Temple (Nanhua, 1990)

又泉州綱首朱紡、舟往三佛齊國，亦請神之香火而虔奉之、舟行迅速，無有艱難阻，往返曾不期年，獲利百倍

“Quanzhou gaoshou Zhufang (泉州綱首朱紡) sails to sanfoji (三佛齊) country. He offered incense to God and prayed. So, the ship was fast and without danger. The round trip did not take a year. The profit was hundred times.”

‘Quanzhou Gangshou Zhu Fang’ is the name of an individual engaged in foreign trade. Records of a Guangzhou Gangshou do not exist, but this individual was wealthy enough to sponsor numerous Arhat statues. Using the name ‘Gangshou’, we can assume that this person was involved with trade. Dating ceramics with writing is difficult, but ‘Gang’ examples from Hakata are estimated to be from the late 11th to 12th century. ‘Guangzhou Ganshou’ dates to the early 11th century, and the ceramic with ‘何綱’ (He gang) from Guanzhou dates to the Northern Song (960-1127). From the Korokan, which was abolished in the mid-11th century, examples with ‘Gang’ have been unearthed.

Shipwreck materials are important for the dating of ceramics. The coins from the Nanhai 1 are at latest from the Qiandao era (1165-1173), and the Quanzhou Bay shipwreck's coins are at the latest from the 7th year of the Xianchun (咸淳) era (1271), and both contain ceramics with ‘Gang’. ‘Quanzhou Gangshou Zhu Fang’ is attested to by a stone inscription from 1138, and from the 12th century, ‘Gang’, ‘Gangsi’, and ‘Gangshou’ who led them are confirmed to exist. The ‘Ganshou’ and ceramics with ‘Gang’ prior to this are thought to be unofficial trade, that is private traders.

CONCLUSION

According to Liao Dake (廖大珂), among the transporters ‘Gang’ there was both an official government ‘官綱’ (Guan gang) and civilian ‘客綱’ (Ke gang), however the Guan gang were few in number, and most took the form of the Ke gang, who undertook foreign trade while supplying their own capital to trade as private individuals, who also acted as official trade delegations (Liao, 1993).

‘Gangshou’ obtained a ‘朱記’ (Zhuji) from a shibosi: they obtained permission before undertaking foreign trade. When operating ‘officially’, these ‘Gangshou’ appeared in official records. However,

in their private capacity, their activities were not recorded. Ceramics with ‘Gang’ left behind show these private activities.

That ‘Gangshou’ led groups called ‘Gang’ or ‘Gangsi’ is not attested to in the historical record. However, ceramics with ‘Gang’ date to the same late 11th to early 13th century as do ‘Gangshou’ in the official historical records. It can be noted that the ‘Gang’ and ‘Gangsi’ of ceramics have some connection to these ‘Gangshou’. These ceramics, as physical material, attest to the ‘private’ activities of the ‘Gangshou’, who, as noted by Liao, possessed both ‘official’ and ‘private’ sides.

From the discovery of the Nanhai I, the trade processes of trade groups (‘Gang’ or ‘Gangsi’) have been illuminated. Also, through these ceramics with writing, their connection with inland sites such as those in Hakata have been made clear. Maritime archaeology plays an irreplaceable role in understanding the historical development of trade groups.

Bibliography

- Baotou, 2010 *包頭燕家梁遺址發掘報告*, Science Press, Beijing.
- Changzhou, 2015. 常州市區正素巷遺址考古調查與報告, *常州文博* (Vol.54):16-27.
- Chen, 1986, 陳信雄. *Shards of the Sung and Yuan Period Found in the Pescadores Islands*, Penghu.
- Chen, 2012, 陳信雄. A Probe into the Salvagered Artifacts at Magong Harbor, Penghu Islands, *Studies of Underwater Archaeology* (Vol.1):189-218.
- Chen, 2014, 陳永志. *Porcelain Unearthed from Jininglu ancient City Site In Inner Mongolia*, Cultural Relics Publishing House, Beijing.
- Do, 2016, Do Truong Giang. Diplomacy, Trade and Networks: Champa in the Asian Commercial Context (7th-10th Centuries), *Moussons*, vol.27, The Sea Beyond all Borders: The Link between Southeast Asian Countries.
- Fuqing, 2005. 福清少林院. 海潮攝影藝術出版社, Fuzhou.
- Gong, 2016, 龔國強/李春林. 陝西西安唐長安城遺址的發掘—2015年社科院考古所田野考古成果 <http://www.kaogu.cn/zixun/2015nianzhongguoshehuikexueyuankaoguyanjiusuoitianyekaochengguoxiliebao/2016/0125/52912.html>.
- Guangzhou, 2005. 廣州大通寺遺址發掘簡報, *廣州考古研究所羊城考古發現與研究* (vol.1):302-319.
- Hakata, 1996, 博多遺跡群出土墨書資料集成, 博多研究会, Fukuoka.
- Handan, 2015. The Excavation of the Porcelain Kiln Sites of the Northern Dynasties to the Yuan Dynasties at Linshui Town in Handan City, Hebei, *Cultural Relics* 2015年第8期:30-56.
- Ishiguro, 2018, 石黒ひさ子. Study of Trade organization "Gang" by Ceramics with Written Ink Letters, *NANTOH SHIGAKU* (vol.86):203-186.
- Ishiguro, 2019, 石黒ひさ子. 「墨書陶磁器」とその史料化, *Meidai Asia-shi Ronshu* (vol.23):148-165.
- Jiang, 2017, 江建新. 論落馬橋窯址出土的元青花瓷器—兼論元代窯業的若干問題, *Cultural Relics* 2017年第5期:50-61.
- Jiangxi, 2016. *Dated Tombs and Dated Bluish-white Glazed Porcelain Wares of the Song Dynasty Found in Jiangxi*, Cultural Relics Publishing House, Beijing.
- Jiaozhou, 2014. *膠州板橋鎮遺址考古文物圖集*, Science Press, Beijing.
- Kamei, 1986, 亀井明德. *The Historical Studies of Trade Ceramics Found in Japan*, Dohosha, Kyoto:201-215.
- Kawabe, 2011, 河辺隆宏. 『朝野群載』所收宋崇寧四年「公憑」について, *情報の歴史学*, Tokyo.
- Ke, 2015, 柯佳育. A preliminary study on the south China exported ceramics of Song and Yuan Dynasties uncovered in Batang Sadon reach of Sarawak in Malaysia, *MARITIME CULTURAL HERITAGE AND ARCHAEOLOGY IN SEAS SURROUNDING CHINA(II)*:275-297.
- Liao, 1993, 廖大珂. 略論宋元時期的綱首, *海交史研究* 1993年第2期:5-11.
- Liu, 2010, 劉元妹/陳豪. 莆田祥應廟記碑考, *福建文博* 2010年第2期:69-77.
- Luoyang, 2014. *SUI-TANG LUOYANG CITY Archaeological Excavations in 1959-2001*. Cultural Relics Publishing House, Beijing.
- Mado, 2013. *Chinese Ceramics Excavated from Waters off the Tae-an-Mado Area*, Korea.
- Mori, 1938, 森克己. 1938. 日支交通と船舶国籍証來朝(外國人の身分査照), 交通文化in 1938, 新訂日宋貿易の研究in 1975, 2008, Tokyo.
- Nanhai, 2011. 「南海I号」の考古試掘, Science Press, Beijing.

- Nanhai, 2017. *Archaeological Report on Nanhai Shipwreck Series I: Surveys of 1989-2004*, Cultural Relics Publishing House, Beijing.
- Nanhai, 2018. *Archaeological Report on Nanhai Shipwreck Series II: Surveys of 2014-2015*, Cultural Relics Publishing House, Beijing.
- Nanhua, 1990. *南華寺*, Cultural Relics Publishing House, Beijing.
- Nanjing, 2006. *Ming Dynasty Baochuan Chang Shipyard in Nanjing*, Cultural Relics Publishing House, Beijing.
- Nanyue, 2008. *The Archaeological Site of the Garden of Nanyue Kingdom Report on Archaeological Excavations in 1995 and 1997*, Cultural Relics Publishing House, Beijing.
- Ningxia, 1995. *EXCAVATIONS OF THE LINGWU KILN-SITE IN NINGXIA*, The Encyclopedia of China Publishing House, Beijing.
- Oba, 2003, 大庭康時. 博多遺跡群墨書資料集成2, 博多研究会誌 (Vol. 11): 83-136.
- Oba, 2017, 大庭康時. 新安沈船出土木簡の基礎的検討, 博多研究会誌 (Vol. 14): 11-41.
- Quanzhou, 1987. *泉州湾宋代海船発掘与研究*, 海洋出版社, Beijing.
- Shiba, 1968, 斯波義信. *宋代商業史研究*, 風間書房, Tokyo.
- Tanabe, 1993, 田辺昭三. 朝日新聞文化企画局. —中国・南海沈船を中心とする— はるかなる陶磁の海路展, 朝日新聞社, Tokyo.
- Wang, 2014, 王志高. Six Dynasties Porcelain Inscribed in Ink Excavated at Yanliao Fang in Nanjing, *JOURNAL OF NATIONAL MUSEUM OF CHINA* (vol. 126): 40-58.
- Zhang, 1998, 張勇. 福州地区発現の宋元墨書, *福建文物* 1998年第一期: 65-68.
- Zhang, 2016, 張勇. 淺談近年出土、出水的唐宋時期墨書瓷器, *南方文物* 2016年第1期: 292-295.

Biography



ISHIGURO Hisako is a lecturer at Meiji University.