

Trading with an Agent: Shippers, Carriers and Investors involved in the trade of Shinan ship

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ABSTRACT

In this paper, the archaeological materials salvaged from the Shinan shipwreck, a fourteenth century Chinese mercantile ship that sank near Shinan islands of South Korea, will be analyzed through correlating the materials found on the Shinan ship to the ancient export routes and manufacturing place of origins. In particular, the locations of which the ship was found, as well as the potential trade routes it undertook, will be studied alongside the items related to the export practices on the Shinan ship. The paper will start by referencing present recordings related to the export location of Shinan archaeological relics recorded in various ways over the past 10 years, such as the Shinan ship excavation report and the site drawings and catalogues of excavated archaeological items. After aligning the reports, excavated items with relevant historical facts, the paper will proceed to the analysis of the structure of the ship, of which the hull will be studied through three divided areas, spanning through the structure of the hull and to the wooden log. Based on these standards, the paper argues that the export points (i.e. locations of exporting of which the Shinan ship had passed by) can be studied by correlating the quantity of various excavated materials found that are manufactured in those regions. The paper will also explore the correlation between the results of such alignment and focus specifically on the export status and shipping practices by analyzing the status of the wooden logs.

In terms of the overview of the Shinan ship area and its salvaged items, it is noted that many ceramic relics were lifted from the site area in large quantities in all areas of the Shinan islands. Most salvaged artifacts were mainly found in the center and stern of the hull. In addition, food items that appeared to be trade items were being stored within brown glazed ware and earthenware. Meanwhile, many coins (A.D. 1~A.D. 14) and metal tablets were found in the stern.

The paper recognized the above artifacts and is going to match these finds with the condition of the wooden logs. For instance, almost all of the large-scale lifting of 'Gangsa (강사)' and 'Dongboksa (동복사)' wooden logs were found in the stern. In the center of the hull, only the shipper's wooden log, which is generally believed to have shipped small cargo, was found. Therefore, it is thought that large-scale shippers mainly shipped coins and medicinal materials that were often stored at the stern, and small-scale shippers mainly shipped ceramics and coins, of which the items were found at the center of the hull.

The paper will also mention that the trading export practice involved on the Shinan ship cargo would have consisted of a person (captain and agent for shippers) on board at the Shinan ship, and a number of investors who requested the purchase spaces offered in the cargo. The passengers would have been in charge of purchasing and transporting the goods on behalf of a large number of investors. In addition, unlike Japan, which consists of a large number of passengers and a large number of investors, the Yuan Dynasty side seems to have been in charge of the purchase and transportation of products by a single subject called Gangsa. Therefore, it seems that the instructor did not lease the ship for a price or simply take charge of navigation, but actively participated in international trade with Kamakura.

Keywords: Agent trade, Shinan ship, Underwater archaeology, Gangsa, trade

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I . INTRODUCTION

After the excavation of the Shinan ship, research conducted on the excavated materials has enabled us to understand more about the shipping information of the ship. These information include departure sites, shippers, shipping destinations and related trade points. However, the archaeological review of the excavation itself remains incomplete. The main factor is that the excavation took place over a decade and the results were not organized in a single form.

To continue with a more holistic approach to the infrastructure which supports trading activities via the Shinan ship, the excavation location and quantity of Shinan ship's artifacts by location were archaeologically reviewed. First, the excavated location of artifacts recorded in various ways over the past 10 years. The records and drawings were integrated. After that, the hull was divided into three areas through the structure of the hull and the wooden log. By area, the export points and quantity of various relics were reviewed. Finally, the correlation between the results and the export status of wooden logs was analyzed.

II . REVIEW OF LOCATION OF THE SHINAN SHIP RELICS AND THE SECTION OF THE EXCAVATION

1. Marking the location of Shinan ship 's artifacts and reviewing the remains drawings

The Shinan ship was excavated 12 times (including two confirmation surveys). A total of 22,040 artifacts were lifted, excluding coins, jagdan wood, and hull pieces that were difficult to accurately identify¹. The quantity of artifacts raised varies from report to report depending on the criteria. The excavation was carried out by installing grids and lifting relics by grid. After some excavation, the grid was demolished, and the hull under the grid was lifted.

Due to differences in the environment, the excavation of the Shinan ship used a method close to the Pit method instead of horizontally and almost uniformly removing the entire remains little by little like land excavation. The soil layer in a specific grid is removed until the hull is confirmed, and then the next section is excavated. Afterwards, if the hull is confirmed, the soil layer is removed to the floor for each cargo compartment, and then the exposed hull is lifted. Finally, the area under and around the hull was searched.

Through this process, two problems occurred as the excavation progressed. The location of the relics was not recorded with one unified standard. In addition, no drawings have been made that combine all excavation areas into one.

So the problem of the legend was organized by taking only what can be confirmed and discarding the rest, and based on this, the location of the export of relics was organized.

Excavation drawings also need to be supplemented. Until now, excavation drawings of Shinan ships have been drawn without the port side (left side). In addition, as 12 excavations were carried out over the past 10 years, not only the inside of the remaining hull and grid but also various external areas were excavated. However, there are no drawings that incorporate them. Therefore, it is necessary to integrate these external excavation areas into one drawing.

Considering these points, an integrated excavation drawing was prepared, including the restoration of the hull of the Shinan ship.

¹ The quantity of artifacts raised varies within the report according to the criteria.

2. Hull structure and compartment through wooden table

There are various variables in the excavation of the Shinan ship, such as overlapping sections between survey areas for each excavation or changing the reference point as the grid was removed during the excavation. Therefore, it was virtually impossible to organize artifacts from all excavations based on small areas such as grids and cargo bay numbers. Therefore, it is necessary to group the area where relics are raised in the following drawings into several large areas. In general, the same criteria were applied because the ship was divided into the front, stern, and midship of the ship.

The front can be easily partitioned. At the beginning of the excavation of the Shinan ship, it was known that a total of nine bulkheads were inserted into the hull, and there were 10 cargo compartments. However, during the excavation and restoration process, the two bulkheads on the player's side were found to be meandering ribs. Therefore, all cargo compartments, including two meandering ribs, can be divided into one cargo compartment.

The most suitable criterion for dividing the rest of the area is the wooden log, the waybill of the cargo. In particular, almost all of the wooden logs found are found in the lower cargo compartment of the hull, so the location of the lifting can be accurately checked.

There is a distinct tendency of wooden logs with the names of major cargo owners, such as as Gangsa (강사) and Dongboksa (동복사) temple, were found concentrated in cargo compartments II to IV. In addition to the two names, a considerable number of wooden tablets with various shippers' names were also found. No wooden logs were identified in the I and V districts. In addition, wooden logs with various shippers were found little by little in the section from VI to VII. Few wooden logs were found in the X~VIII area. According to this trend, the areas I to IV and the area behind it correspond to the stern. The V-VII area is the center, and the VIII-X area and the area in front of it correspond to the front. The quantity of artifacts lifted was collected for each divided area.

The problem is that even if divided by these criteria, there are grids and excavation areas that span between each zone. However, the hull of the Shinan ship is tilted toward the front. The grid with more areas overlapping the front side cargo compartment was included as the front area. Conversely, the grid where more areas overlap in the cargo compartment on the stern side was included as the rear area. The results are shown in Table 1 below.

Table 1. Excavation areas by hull section of Shinan ship

	Front	Midship	Stern
Grid	D2, D3, E1, E2, E3, E5, E6, F·G·H, F6S	D1, D4, D5, D6, E4, N, N1, N2, N3, N6, A·B·C전부	N4, 5, M·O·P·Q·R
Cargo compartment	VIII~X, SVIII外, SVIII-IX 左外, SIX, SX, SIX-X 左外, SX-外, A/L VIII, A/L IX, A/L X	V~VII, SVI, A/L V, A/L VI, A/L VII	I ~IV
the outside of the hull	5D, 6-1H, 7G, 8E, F外, FX	4B, PNS, 9A, A外, B外, D外, N外	MS, M6S, 10.0, 10, 1Q, 1-1Q, 2R, 3P, RZ, RZ外, O外, P外, Q外, R3外, R6外, R外, M外

According to these criteria, Table 2 above summarizes the overlapping sections on the drawing. Figure 1 summarizes the results classified so far.

III. REVIEW OF THE QUANTITY OF ARTIFACTS TO BE LIFTED IN EACH AREA

1. Ceramics

The quantity raised by front/midship/stern was organized by type of relics. The amount of ceramic produced among the relics is shown in Table 2 below. A total of 13,484 ceramics could be classified, except that they were treated as unknown and that the location of the export could not be clarified.

Table 2. The status of the lifting of ceramics in each area

Kind	Front	Midship	Stern
Celadon	4052	1343	2663
Blue-white porcelain	354	751	637
White porcelain	463	724	971
Black glazed pottery	198	21	42
Brown glazed pottery	695	180	104
Chen-mok	4	9	6
Homogeneous glazed pottery	23	65	25
White glazed pottery	-	-	4
Earthenware	105	36	7
Setonai Plum Bottle	-	-	2
Total	5,894	3,129	4,461

The fact that many brown glazed pottery ware and earthenware, not other types, are exported from the front is thought to suggest other possibilities, not loss. This can also be confirmed through the types of brown glazed pottery and earthenware shipped on Shinan ships. Most of the brown glazed pottery found are small arcs and large arcs. Most of the earthenware is large and medium-sized big four-eared arcs. Generally, this type is used as a storage container for food. Therefore, it can be said that the upper part of the front cargo compartment of the Shinan ship is a container that stores food on board or food to be used for trade, and it can be said that brown glazed pottery and earthenware were mainly shipped.

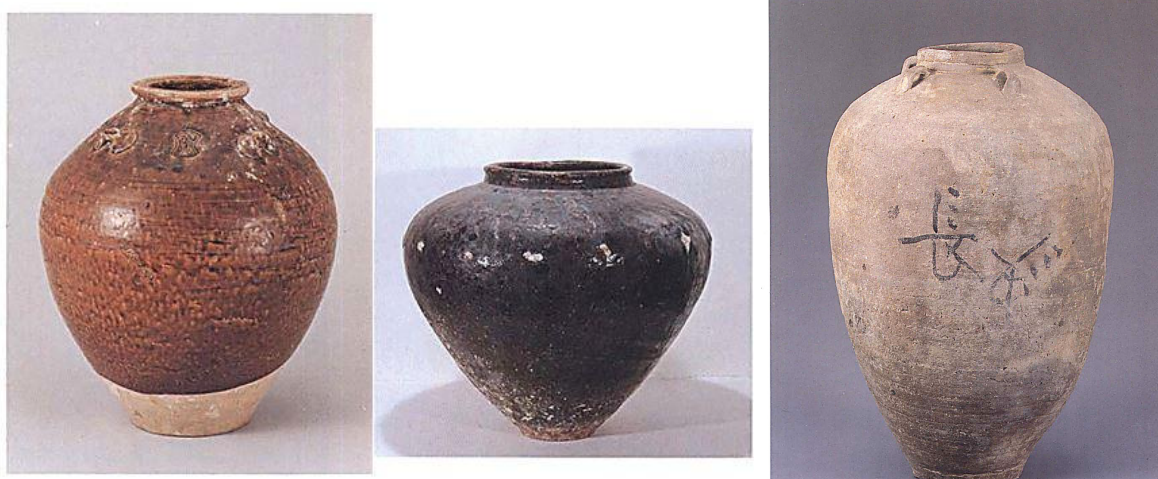


Figure 2. Brown glazed pottery – large arcs (left, center); Earthenware - four-eared arcs (right)

However, brown glazed pottery and earthenware were also found in the stern or the midship of the hull. Therefore, I tried to distinguish where the food to be used in the voyage and the food for sale were loaded on the hull, respectively. A large water tank was identified in Shinan ship cargo

compartment V. Water is essential to cook food. Therefore, there must have been a cooking facility in or near the cargo compartment V where the water tank was identified.

To confirm this, the quantity of relics exported from cargo compartment V was separately organized. The sections that clearly correspond to cargo compartment V are as follows. A4, 5, 6, B4, M1, N2, 3, 6, N外, V, SV, A/L V. Table 3 below summarizes the quantity of ceramics raised in the above area and those in other areas.

Table 3. Comparison of the current status of the lifting of ceramics in each area and the lifting of ceramics in cargo compartment V

Kind	Front	Midship	Stern	Cargo compartment V
Celadon	4052	1343	2663	571
Blue- white porcelain	354	751	637	53
White porcelain	463	724	971	397
Black glazed pottery	198	21	42	15
Brown glazed pottery	695	180	104	105
Chen-mok	4	9	6	9
Homogeneous glazed system	23	65	25	45
White glazed pottery	-	-	4	-
Earthenware	105	36	7	13
Setonai Plum Bottle	-	-	2	-
Total	5,894	3,129	4,461	1,208

In cargo compartment V, brown glazed pottery, homogeneous glazed system, and white porcelain were found about half of the total amount of water discharged in the midship, and about 1/3 of the earthenware was found. Therefore, it is believed that cargo compartment V contained some cargo and food storage containers, and water tanks were installed on the left and right sides.

Water tank was installed left and right in the center of cargo compartment V.² In fact, only the pedestal, bottom plate, and part of the lower wall were lifted.

² In fact, it was found only on the starboard side, but it is presumed that it was installed on both the left and the starboard side because it was not balanced when installed on only one side, causing problems with resilience.

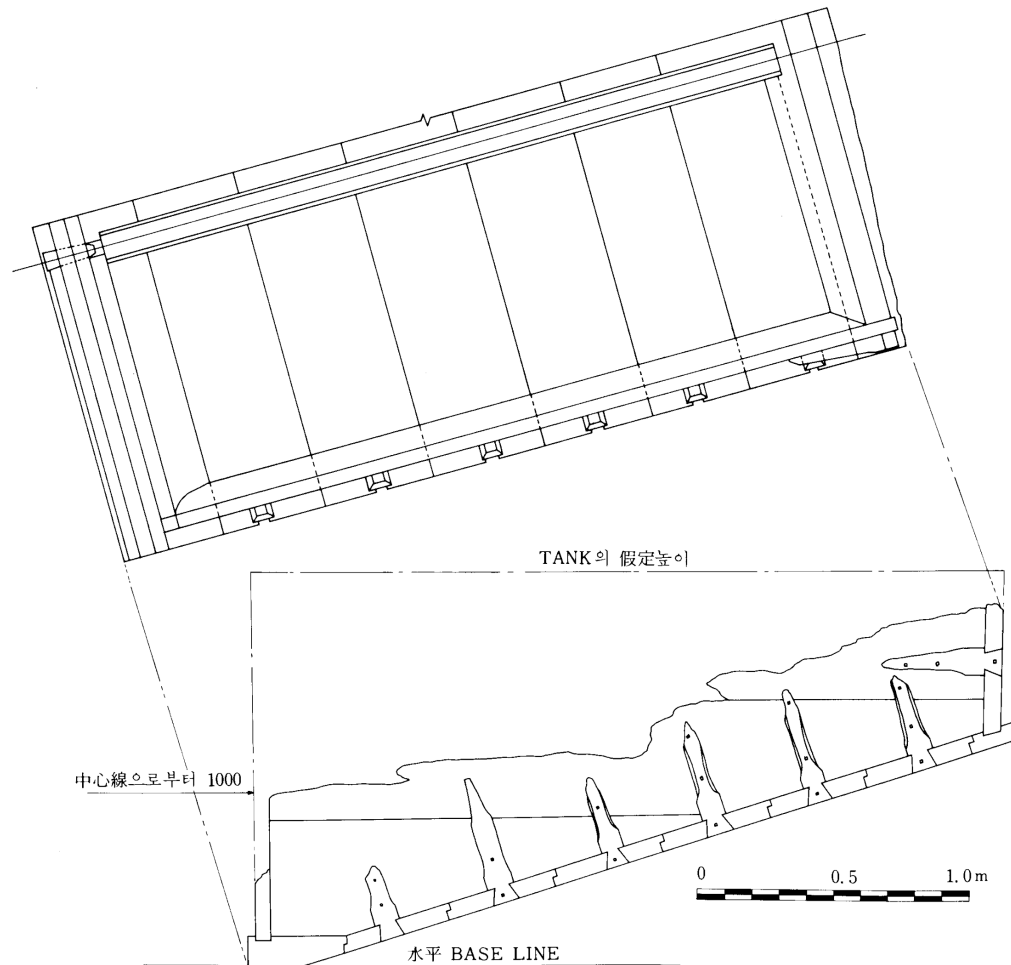


Figure 4. Drawing of water tank of Shinan ship.

Since no trace of attaching a device such as a faucet to the bottom of the lifted water tank has been identified, it seems that water was taken from the deck by drawing water from the well for now. If so, it is highly likely that the cooking facility was also cooked in a structure separately installed on the central deck above cargo compartment V. Therefore, some of the groceries would have been stored in cooking facilities.

However, it is unlikely that all the groceries were stored on board. Given the size of the Shinan ship, the amount and volume must have been significant because at least 50 people³ need food for about a month⁴. Therefore, a considerable amount of groceries would have been stored in the cargo compartment below the deck.

However, it is difficult to move between cargo compartments on the Shinan ship because the cargo compartment is divided into partition walls. Therefore, sailors must open the deck above the bulkhead and enter the cargo hold. Therefore, if the cooking facility was installed directly above the water tank, food would also be stored in cargo compartment V.

³ Although the number of people on board varies from literature to scholar, it generally appears to be between 50 and 200, and the minimum number of 50 people was selected to increase reliability.

⁴ When Seo Geung sailed to Goryeo, it took more than two weeks, departing on May 26 and arriving on June 12 by a tailwind, and it took more than 40 days to return home. Therefore, it is believed that the Shinan ship prepared at least a month's worth of food.

Therefore, it is estimated that the fact that much more brown glazed pottery and earthenware are found in the front than in the cargo compartment V where cooking facilities would have been installed means that the items shipped to the front are likely to have been shipped as containers storing groceries for trade.

2. Quantity of lifting of wooden logs by area

A large number of wooden logs were found on the Shinan ship, and the main records were the shipper's name, date, type of cargo, and quantity. First, the lifting volume of wooden logs by hull area was organized according to the shipper's name, and the types and quantities of cargo recorded in wooden logs were compared with the situation of lifting relics by area.

As shown in <Table 4> below, the wooden logs of the lifting volume for each shipper's name was divided into four stages: extra large, large, medium, and small. This is because the amount of lifting of wooden logs varies significantly by shipper, 綱司(Gangsa), 東福寺(Dongboksa), 一田早米(Icida Sayame), 八郎(Hachiro), 菊一(Kikuichi), and other shippers.

Table 4. Shipper classification by volume of wooden logs

Volume	Classification criteria (quantities)	Names in wooden logs
extra large	More than 100	綱司私
large	More than 30	東福寺
medium	More than 10	一田早米, 八郎, 菊一
small	Less than 10	others

Table 5 below summarizes the quantity of wooden logs exported from the front/midship/stern by the size of the shipper.

Table 5. Shipper classification by volume of wooden logs

Volume	Stern	Midship	Front
extra large	1	-	1
large	1	-	-
medium	3	1	1
small	23	5	-

Among them, only the 綱司 and 菊一 wooden logs were found in two regions, stern and front. However, the amount of lifting varies greatly by area. 綱司 wooden logs were found 106 in the stern and only 4 in the front. 10 菊一 wooden logs were found in the stern and only one in the front. In the center of the hull, only wooden logs, which correspond to five small shippers and one medium shipper, were found.

This seems to mean the fact that the front, stern, and midship of the hull are separate loading spaces. In particular, the stern and the center are clearly distinguished by the structure of the hull. The cargo compartment on the stern side is connected to the cabin, and there are relatively few crew members entering and leaving during the voyage. On the other hand, the central cargo compartment of the hull is frequently accessed by sailors while sailing, and access is easy. Therefore, the cargo of the shipper with relatively low status or low capital would have been shipped in the center of the hull.

Second, Table 6 summarizes the types of cargo among wooden logs lifted from the stern.⁵ Most of the remaining wooden books not listed in the table had only the date recorded, and some of the others were damaged or could not be checked.

⁵ What was found between VIII and VII was incorporated into the stern because the Shinan ship sank while tilted to front

Table 6. Names and quantities of wooden logs found in the stern

Name on wooden log	contents	volume
綱司私	七十三包六百内	45
綱司私	七十三包内	1
綱司私	二包内(行妙?)	1
綱司私	藥五種八十	1
東福寺	十貫公用	32
東福寺	大錢六貫	1
東福寺公物	大錢五貫	6
釣寂庵	十二文	1
(釣寂庵)至治三年	陳皮五十五斤	1
(釣寂庵)至治三年	大錢捌貫文(釣寂庵??)	1
(釣寂庵)至治三年	~貫文??	1
(釣寂庵)至治三年	十二貫子	1
(釣寂庵)至治三年	大捌貫文	1
一田早米	十貫	6
一田早米	大錢	2
一田早米	大錢五貫文	1
一田早米	大錢六貫文	4
一本	八貫五百?	1
八郎	大錢	2
とう二郎	大錢	2
松 菊得	十二貫	4
松 菊得	五貫十二貫文大錢	1
十貫文道阿於分	九十貫内	4
正悟	陳皮二十七斤	1
教仙	十貫文	1
教仙	十二貫文	1
教仙	宮岐奉加叅貫	1
(불명)勸進聖	宮岐奉加叅貫	1
菊一(이하불명)	自分九百	2
妙行	十貫??	1
子哲	十一貫	1
得法	十貫文	1
福	四斗	11
(教正??)	北米七斗	2
秀忍	十二貫文	1
教仙	十貫文宮岐奉加錢	1
戒心	三斗	1

The names and quantity of wooden logs found in the front are shown in Table 7 below.

Table 7. Contents and quantity of wooden logs found in the front.

name	content	volume
綱司私	五月十一日	4
十貫菊一	?月?日	1

Except for one wooden log found in the front, all wooden logs that could identify the cargo were found in the stern. In particular, no wooden log was found in the midship to identify cargo.

It is quite meaningful that no coin-related wooden log was found in the center of the hull, where 6,783 kg, about 40% of the total coin volume, was found. In particular, considering that the coin is loaded under the hull, which is not severely lost, not all wooden logs representing the shipper of the coin would have been lost only in the center of the hull.

It is worth noting that none of the Gangsa's wooden logs indicates the possession of coins. The contents of the cargo can be checked among the Gangsa's wooden logs, except for one '藥五種八十' wooden log, all of which contain the letter "po (包)." In addition, only the date is recorded in the list of Gangsa's names. Therefore, the Gangsa would not have shipped any coins at all, or the entire coins shipped in a particular cargo hold would have belonged to the Gangsa.

Of course, the coin loaded in the center of the hull may not belong to the Gangsa. It may be a public cargo in the sense of corresponding to the Gangsa or Gangsa 'sa(means private)' However, most of the wooden books with Dongboksa, which appear to be public cargo corresponding to the Gangsa⁶, recorded the possession of coins. Therefore, the coin shipped in the center is thought to belong to the Gangsa.

Of course, only the date recorded in the Gangsa's wooden logs may indicate the possession of the coin. However, most of the wooden logs that are not those of the "Gangsa" are written to imply that cargoes such as "gwan (貫)" and "jeon (錢)" are coins. Therefore, it seems that the "Gangsa" wooden log, in which only the date is recorded, is intended to indicate that it is the shipper of separately packed cargo such as wooden boxes, not coins. This is because if the "Gangsa" wooden logs, which records only the date, records the possession of the coin, there should be a word related to the coin as seen in other wooden logs. Therefore, the coin in the center of the hull seems to belong to the "Gangsa".

This also shows how the cargo shipped by the "Gangsa" was packaged and shipped. The list of "Gangsa" can be divided into two categories: recording only the date and recording the contents such as medicine and po (包). Among them, "medicine (藥)" appears to have been packaged in cloth, boxes, or ceramics, "po (包)" is wrapped in cloth, and only the date recorded seems to have been attached to the packaging in boxes or ceramics.

IV. CONCLUSION

As a result of classifying the status of the lifting of relics by the Shinan ship area, ceramic relics were lifted in large quantities in all areas. Living artifacts were mainly found in the center and stern of the hull. In addition, food items that appeared to be trade items were shipped to the front while being stored in brown glazed ware and earthenware. On the other hand, many coins and metal tablets were found in the stern.

In addition, almost all of the large-scale lifting of 'Gangsa' and 'Dongboksa' wooden logs were found in the stern. Most of the wooden logs found in small quantities for each shipper were found in the center of the hull. Therefore, it is thought that large-scale shippers mainly shipped coins and medicinal materials to the stern, and small-scale shippers mainly shipped ceramics and coins to the center of the hull.

It is unclear how many wooden logs have been lost, but it is possible to guess that at least thousands of wooden logs have been lost. However, there are about 30 shippers who can be confirmed by letters or symbols recorded on 320 wooden logs and several wooden boxes. However, it is estimated that more than 40 times the number of wooden logs have been lost, even considering only the coins loaded on the stern. Therefore, even considering the number of shippers of coins shipped to the stern, it is

⁶ All but one wooden book have a common character

estimated that the number of shippers who shipped cargo to the Shinan ship far exceeds the maximum number of people on board⁷, which is estimated to be about 200. It is therefore certain that the number of shippers was much larger than the boarding capacity.

Therefore, the shipper of the Shinan ship cargo would have consisted of a person on board the Shinan ship and a number of investors who requested the purchase of the cargo. The passengers would have been in charge of purchasing and transporting the goods on behalf of a large number of investors. In addition, unlike Japan, which consists of a large number of passengers and a large number of investors, the Yuan Dynasty side seems to have been in charge of the purchase and transportation of products by a single subject called Gangsa. It seems that the Gangsa's economic power was that strong, or that a nearly complete form of joint venture-agent trade was conducted, in which a large number of investors invested only capital and allocated capital and profits if trade succeeded. Alternatively, it may be in the form of receiving dividends in kind purchased from Japan after investing capital.

Among the wooden logs of the Shinan ship, the most frequently found of the Gangsa's wooden log was probably due to the largest number of cargoes, but also to the fact that many of the Gangsa's cargo, including coins, were shipped at the bottom of the stern cargo compartment.

Therefore, it is certain that the Gangsa's cargo was shipped first and the cargo of another shipper was shipped. This means that the Gangsa led the trade from the first stage carried out by the Shinan ship. This is especially true because the amount of cargo shipped by the instructor is about 40% of the total based on coins. Therefore, it seems that the instructor did not lease the ship for a price or simply take charge of navigation, but actively participated in international trade with Kamakura.

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⁷ It varies from researcher to researcher, but scholars estimate that more than 200 people were on board.