A BRIEF REPORT ON THE LATEST EXCAVATION OF AN ANCIENT KILN SITE AT DEHUA IN FUJIAN
By The Field Team, in Wen Wu, 1979, No. 5, pp. 51-61.

HOW I VIEW THE QUDOUQONG KILN OF DEHUA
By Li Huibing, in Wen Wu, 1979, No. 5, pp. 66-70

TRANSLATOR: LU YAW

CHINESE PORCELAIN FOUND IN A SHIPWRECK ON THE SEABED OFF SINAN, KOREA
By Li Dejin, Jiang Zhongyi and Guan Jiakun,
in Kaogu Xuebao, 1979, No. 2, pp. 245-253

TRANSLATOR: LIN WOLING

Singapore, March 1980
COUNCIL OF THE SOUTHEAST ASIAN CERAMIC SOCIETY

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Miss Yeo Siow Leng for secretarial and editorial assistance.
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FOREWORD

This second in the series of Translations recently commenced by the Society covers two articles from Wen Wu, No. 5, 1979 on excavations at an ancient kiln site at Dehua in Fujian Province, which are of particular interest to members of the Society as many of the ceramic pieces excavated at Dehua are similar to the ceramic wares found in many parts of Southeast Asia - wares with which our members are quite familiar. In his accompanying "Translator's Comments", Mr. Lu Yaw expresses a different view from the writers’ of the articles on the identification of certain of the ceramic wares discovered in these Dehua remains.

In his translation from the Kaogu Xuebao, No. 2, 1979, Mr. Lin Wo Ling presents the authors’ comments on the recent finds of porcelain from the Sinan shipwreck; a useful analysis to follow up the references to these finds in the Society’s book “Chinese Celadons and Other Related Wares in Southeast Asia” published in June last year to coincide with the joint Exhibition of Celadons held at the National Museum of Singapore.

The Society is most appreciative of the work of Mr. Lu Yaw and Mr. Lin Wo Ling in the preparation of these translations.

S.R. Parker
President
Southeast Asian Ceramic Society

Singapore, March 1980
A BRIEF REPORT
ON THE LATEST EXCAVATION
OF AN ANCIENT KILN SITE
AT DEHUA IN FUJIAN

The kiln site was first discovered in 1953 in the village of Qudougong, about one km south-east of Dehua town. Since then several investigations have been undertaken. The site covers an area measuring approximately 150 m x 300 m. The whole area is thickly strewn with pot-sherds and kiln accessories, like saggars and setting stands, of every description.

The latest excavations, with which this report is concerned, were undertaken by a field team drawn from the staffs of the Fujian Provincial Museum, the History Department of Amoy University and several other institutions. Work began in late April 1976 and was completed in late July. In the course of the exploration twenty-one sample trenches of five metres square were dug, revealing the remains of a kiln, besides large quantities of porcelain wares and kiln tools.

I DEPOSITS

Except for some evidence of partial disturbance, the layers of deposits uncovered are in the main in good preservation. They can be distinguished by the colour of the soil, and may be classified into those found above and below the kiln structure proper, and those in the surrounding ground. We may designate the first category as the "kiln deposits" and the second as the "surrounding deposits".

In the first case, two layers are distinguishable. The upper layer from the top of the kiln remains to the surface of the ground is made up of greyish-yellow soil, of a thickness varying from 0.50 m to 1.20 m. The deposits found in this layer are rather mixed: there are blue-and-white sherds, white wares, bowl-shaped saggars and ring saggars, metal scraps, etc. There is even a copper coin minted in the reign of Dao Guang (1821 - 1850) found among the remains close to the head of the kiln. The contents in this layer seem to have derived largely from Ming and Qing times to the present day.

The layer under the kiln remains is composed of yellowish and reddish-brown soil, in thickness varying from 0.20 m to 0.60 m. This layer has yielded large quantities of kiln bricks, saggars, several types of setting stands, potters' knives made of iron, and other kiln tools. The rich ceramic finds from this layer consist of shufu-type of bowls, stem-cups and bowls of a type2 (called "dun-zi" by the Chinese) common in Yuan ceramics, bowls moulded with upright lotus petals on the exterior, boxes, cups, vases, saucers, plates, etc.

Inscriptions in Chinese, like the character "tien" (天) and the cyclical year "Ding-wei Nien" (丁未年), and in a script like the Mongol script are found incised on the base of some saggars and setting stands. And decorating the lids of boxes are Chinese characters incorporated into the motives, representing auspicious sayings, such as "金玉满堂" (alluding allegorically to a family blessed with abundant offspring) and "福海寿山" (meaning
longevity and blessings in superlative terms). A copper coin stamped with “熙宁”, i.e. minted in the Song reign of Xi Ning (1068 - 1077) was found close to the head of the kiln. Some sherds of vessels with unglazed mouth-rims and ring-saggers for their firing are among the finds. From these finds, evidently this layer cannot belong to the same period as the last.

Surveying the two exposed sides of the kiln, which is laid out in a north-south direction, one can see that the deposit layers flanking that section of the kiln from the head to the middle have been disturbed, whereas the ground on either side of the other section is in a better state of preservation. By and large, the twenty-one trial trenches reveal two layers of deposits.

The first layer, that is the top layer, is composed of greyish and reddish-brown soil, rather loose and soft, in thickness varying from 0.10 m to 0.50 m. Coarse grass and young pine trees grow here. Deposits found in this layer consist of scattered pieces of saggers, firing rings, setting stands and some sherds; a few scraps of iron, glass, and sherds of modern blue-and-white. This layer has evidently been disturbed.

The second layer may again be split into an upper and a lower sub-layer. The soil of the upper sub-layer is greyish brown with ring-saggers embedded in it. This is in sloping ground, and its thickness varies from 0.20 m to 0.50 m. This sub-layer contains large quantities of ring-saggers and related bowls with unglazed mouth-rims, shufu-type of bowls, bowls with lotus petals moulded on the exterior, saucer-dishes shaped like a brass gong (fig. IV, 8), small cups, saucers, kendis, vases, jars, etc.

In the lower sub-layer the soil is reddish and yellowish-brown, soft and somewhat sticky, varying in thickness from 0.30 m to 0.70 m. This sub-layer is even richer in its deposits. Finds include kiln tools, such as saggers, ring-saggers, setting stands with three spurs, etc.; and ceramic wares consisting of shufu-type bowls, bowls with lotus petal decoration, stem-cups, small cups, covered boxes, washers decorated with vertical lines moulded on the exterior, vases, ewers, kendis, etc. On the bases of some vessels can be seen impressed portraits of Mongols; in other cases, Chinese or Mongol inscriptions are found incised on the bases of setting stands.

On the evidence of kiln tools and ceramic wares found in the two sub-layers, there is little doubt that these belong to the same period. Generally, these finds in the two sub-layers are also not unlike those found in the lower layer of the kiln proper - hence they are also related in time.

Under the second sub-layer, the soil is yellowish-brown or red, and bare of contents.

II KILN STRUCTURE

The remains of the kiln lie on a hillslope, ascending roughly in a south-north direction at a gradient varying from 12° to 22°, with the floor conforming to the sloping ground, measuring 57.10 m in length and varying from 1.40 m to 2.95 m in width. The firing chamber at the head of the kiln is narrower than the body of the kiln and, in plan, is roughly semi-circular. Cross walls divide the kiln into seventeen chambers of varying lengths, the largest being about four metres and the smallest 2.5 metres. The partition wall is pierced at the foot with five vents, and ditch-like ducts run along either side of the floor which is covered with a layer of quartz sand. There is an opening from outside to every chamber, these openings being positioned next to the partitions and cut in the east-facing side-wall of the kiln, with the exception of three in the opposite side-wall. Some of the material, such as bricks for sealing these openings, is found lying closely. The roof has collapsed, but from the wedge-shaped bricks found among the rubble on the floor, it appears to have been vaulted. This method of construction seems to come between the earlier dragon kiln without interior partition walls and the latter stepped kiln whose floor is level and stepped.
From the kiln tools uncovered on the floor of the kiln, we have a pretty good idea of how wares in the clay were loaded in the chambers for firing. Generally, saggars were placed in the front part of each chamber, up to about two-thirds of the floor space, twelve in a row and eleven deep, in which small saggars alternated with large ones. After the saggars came the stilts or stands arranged about twenty in a row and three to seven deep, on which presumably pairs of vessels with unglazed mouth-rims and bases were stacked rim-to-rim and fired without saggars. From the foregoing account, it can be seen that a kiln like this would have a very large capacity.

III FINDS
(A) POTTER’S TOOLS

1. Moulds
Twenty moulds for casting various types of vessels have been discovered. They have motifs carved on their interior in the negative to produce decorations in relief on the exterior of pots cast from them. These moulds are made of fine clay and on the potter’s wheel, and have been burned reddish-brown (fig. II, 1 and 2).

2. Bats
These are dish-shaped stands for placing on the potter’s wheel for shaping or trimming the pots. They have been thrown on the wheel and burned reddish-brown with a film of greenish glaze on the surface (fig. II, 3 and 4).

3. Iron Knife
One double-edged iron knife, intact but rusty, 27.5 cm long, a tool for prying open saggars (fig. II, 5).

4. Sagger Stands
There are 35 of these, made of coarse clay and thrown on the wheel, 12 cm - 24 cm in diameter, with a tapering to a flat top, on which to stack saggars (fig. II, 6).

5. Saggars
Two hundred and seventy-seven of these were found. They are of three types:

Four flat-bottomed saggars, intact, mouth-rim 17.1 cm - 17.4 cm in diameter, height 3.9 cm - 4.5 cm, used for firing shallow vessels like plates, saucers, washers, boxes, etc. (fig. II, 7 and 8).

There are seven whole saggars with a cup-like depression in the centre of the bottom, some with a protruding boss in it, for firing stem-cups. Mouth-rims of these saggars vary from 13-18 cm in diameter, and height 3.9 cm-4.5 cm (fig. III, 1).

Twenty-three saggars with bowl-shaped bottom are found intact. Their sizes vary from 28.6 cm in mouth-rim diameter and 11.7 cm in height, to 11.4 cm in diameter and 5 cm in height. Some of these saggars have rings or bosses protruding from the bottom of the bowl to steady vessels of various construction in the firing. Some of the saggars have Chinese characters incised on the outside; one middle-sized sagger bears the cyclical year “Ding-wei” (丁未) (fig. III, 2; fig. VII fig. VIII; fig. II, 10; fig. III, 4).

6. Sagger Covers
Six found, with either flat or domed profile measuring 12.6 - 24 cm in diameter and 2.7 - 5 cm high (fig. II, 9; fig. III, 8).

7. Ring saggars
One hundred and twenty-four discovered, measuring 11.7 - 21.3 cm in diameter and 2.4 - 3 cm high. They are for use in firing pots in inverted position - hence the unglazed mouth-rim (fig. II, 11 and fig. XXVI, 1 and 2).
8. Stilts

Fifty-three found and most of them intact, measuring 6.7 - 9.3 cm in diameter and 6.8 - 17 cm high. They are for supporting some types of vessels stacked in pairs rim-to-rim without saggars in the firing process. The mouth-rims of vessels so fired are thick and unglazed (fig. III, 5).

9. Setting Stands

Fifty-seven pieces found, intact, and falling into four types:

Type A (fig. III, 3)
Three found, diameter 10 - 21 cm, height 7 - 21 cm; used as base for the ring-saggars.

Type B (fig. III, 6)
Three found, diameter 6.5 - 13.7 cm, height 1.8 - 4.9 cm.

Type C (fig. III, 9)
Nine found, diameter 5.3 - 8.9 cm, circular or elliptical in form.

Type D (fig. III, 10)
Four found, diameter 9 - 11.5 cm, height 3.3 - 5 cm.

10. Stands with Three Spurs

Two hundred and three found, intact, diameter 2.8 - 8.7 cm, height 0.6 - 2.0 cm, made of porcelain, some have raised Chinese characters and undecipherable marks on the exterior base (figs. XI and XII).

11. Ring Setting-Stands

Eleven of these unearthed, measuring 4.4 - 5.8 cm in diameter and 1.5 -2.1 in thickness. They are crudely shaped (fig. III, 7).

Comparing the shapes of the ceramic wares with the manner of construction of the kiln tools and, especially, the appearance of some pieces found adhering to the latter, it is easy to visualize how the pots were loaded in the saggars prior to firing. Firing of stem-cups in special saggars has been referred to before (under Finds, [A] Potter's Tools, 5. Saggars). Large bowls like the so-called "dun-zi" type in fig. IV, 2 would be placed in saggars with bowl-shaped bottom, one saggard holding the bowl and stacked on top of one another till the roof of the kiln chamber was reached, the saggard at the bottom resting on a saggard stand (fig. II, 6, and fig. XXVI, 3). Flat-bottomed washers would be set for firing by standing one upright on the bottom of an inverted flat-bottomed saggard (fig. II, 7 and 8) and covering it with another inverted saggard, on the bottom of which another washer would be placed, and so on. Shallow vessels like the saucer-dish would be set by placing one with mouth-rim downwards; then another ring-saggard would be mounted on the first and another dish inverted on it; this would go on until a column of ring-saggars was built up (fig. XXVI 1 and 2). All the dishes so set for firing would be of one size and all would have an unglazed strip round the mouth-rim, so that it would not stick to the saggard. The quantity of this type of dishes and the ring-saggars unearthed testifies to the widespread adoption of this particular line of production.

(B) PRODUCTS OF THE KILN

The excavation has yielded an enormous quantity of wares for everyday use - some 6,800 pieces having been counted. The most frequently encountered items are bowls, saucer-dishes, pouring vessels, jars, vases, washers, cups, stem-cups and boxes; within each category, of course, there are variations in size and shape. Some of these will be described below, but a word about their glaze first. They are all white, but broadly two shades may be distinguished: one resembles the yingqing ware of Jingdezhen - white, with just a tinge of greenish-blue; the other is pure white. The best example in either case has a refined, smooth and unctuous texture, of a jade-like quality, lending marked distinction to the decorations underneath. In other cases the glaze appears greyish or yellowish, lacking in
lustre and rough to the touch. This is usually a sign of under-firing due to their unfavourable position in the kiln, or they have been fired without the saggar, as referred to under (A) Potter's Tools, 8.

**Bowls**

These are the most numerous among the finds, accounting for more than 3,300 of various sizes and shapes; mouth-rims are either glazed or unglazed; the base may be flat or fitted with a foot-ring or a solid foot; surface may be plain or decorated, in the latter case the upright lotus petal band predominates; both the base and the foot are unglazed, showing a white and hard body. Some bowls have Chinese characters incised on their bases, some of which seem to designate surnames, while others appear to be the casual scribblings of the potter. Diameters vary from 7.6 cm to 23.2 cm (fig. IV, 1-7; fig. V, 1-5).

**Saucer-dishes**

Next in bulk come the saucer-dishes; there are over 800 of them. As in the case of bowls, both unglazed and glazed mouth-rims are found, some of the latter type being foliated. Some bases are flat, others have shallow foot-rings, and they are either plain or decorated - mostly with lotus petals on the outside, some of these moulded decorations being exquisitely executed. One type of saucer-dish has a slightly convex base raised to a point in the middle, resembling a type of brass gong, hence its nickname "brass-gong saucer-dish"; diameters vary from 12 cm to 23.5 cm (fig. IV, 8-10).

**Saucers**

Only 19 of these have been brought to light, all with flat base and unglazed mouth-rim; diameter about 9 cm (fig. VI, 1).

**Ewers**

There are two main types: that which has a trumpet-shaped mouth and neck, a rather angular bend round the middle of the body, a long and straight spout but without handle, low or almost non-existent foot-ring, and is known as kend; and that which is fitted with a short spout and a small handle, and has a foot like the first type, a small mouth with lid, squat body with an angular bend in the middle, being the result of luting, full height about 12 cm. Both are decorated with a moulded tendril, the so-called "classical" scroll, round the body in two zones, with short, upright lotus petals encircling the base; glaze falls just short of the base (fig. VI, 2 and 4, figs. IX, and XI). More than 280 of these have been unearthed.

**Jars**

Only four are restorable and they represent four types. One is exactly like the second type of ewer just described, minus the spout and handle (fig. VI, 3); the second type (fig. XIII) has wide mouth, straight sides, flat base, with moulded diamond diaper for decoration; the third type resembles the second, except that it is provided with a flange round the mouth-rim to receive a lid, though none of the latter has been found, its sides are also slightly curved and decorated on the exterior with tendril scrolls and phoenix (fig. XIV); the fourth type has a broad shoulder from which the body tapers towards a flat base, with no decorations, height 21.6 cm (fig. XV, left).

**Vases**

Some 39 pieces have been collected. Two types emerge from those that can be restored: one with small mouth, long neck with a rib round the middle, bulging shoulder, low foot-ring, without decoration, height 17.6 cm (fig. XV, right); another with flaring mouth, high neck, ovoid body with prominent joint in the middle, concave foot, decorated with moulded tendril scroll, roughly made, height 9.2 cm (fig. XV, middle).

**Washers**

This is another item which figures large amongst the finds - there are nearly 1,000 of these. They are all wide-mouthed, shallow and flat-bottomed; size varies greatly, so also does the quality; moulded linear decorations on the exterior include the tendril...
scroll, ribbing, straight lines issuing from base to the rim (these being the most common). The paste of some is remarkably hard and refined. Two have incised on their bases portraits of what appears to be typical Mongols. Mouth-rim measures 9.8 - 16.8 cm (fig. V. 8; fig. VI, 5; figs XVI and XVII).

Cups

There are 970 of these of all sorts, e.g. some with stem, others with foot-ring, others again with flat base; some are round, others, seven or eight-sided; most have moulded decorations on the exterior but some octagonal cups have lotus petals carved on their sides in light relief, altogether exquisitely potted (fig. VI, 7 and 8; figs. XVIII, XIX and XXV).

Boxes

As far as can be made out, they are all round in shape with cover, size varying widely from 4.3 cm to 18 cm in diameter. Decorations are moulded on the cover and round the exterior of the lower section; floral designs feature the peony, chrysanthemum, lotus, prunes, etc., with, in many cases, auspicious words and phrases, or ones with a Buddhist touch, incorporated in them (fig. VI, 6; figs. XXI - XXIV).

Other than the stem-cup, there is overwhelming evidence that the products of this kiln were mould-cast; and many, like ewers and vases, were moulded in separate parts and luted together. The rim of pots fired upright is thin - some much thinner than the bottom - and pots fired upside-down have thick rims.

There is always a proportion of the products, in every category, showing signs of poor firing, with the biscuit being porous and discoloured; the glaze crackled, dull and greyish or yellowish, instead of the sparkling, pure or greenish white.

IV SOME TENTATIVE VIEWS

From available evidence, there is reason to believe that the Quduogong kiln came into production during the transition period between the Song and the Yuan, with the latter reign as the more likely date for its heyday. Although no definitive evidence has come out of the excavation, the deposit layers of the kiln proper and in the surrounding ground, the shape and style of the ceramic wares recovered, the inscriptions, including a date in terms of the cyclical year, and human figures incised on the bases of pots or kiln utensils, nevertheless, do collectively constitute some bases to work on.

From the deposit layers both pertaining to the kiln structure and its surrounding ground, typical Song and Yuan pots and kiln tools have been uncovered, such as vessels with unglazed mouth-rim and special ring-saggars used for their firing. It is therefore evident that finds in both locations have come down to us from a common date - probably the kiln was built in late Song and came to an end in early Yuan.

A very important feature of the finds is the preponderance of products redolent with Yuan flavour, such as the shufu-type of bowls (fig. IV, 5), the sturdy "dun-zi" bowl (fig. IV, 2), the stem-cup, the vertically ribbed washer (fig. XVII, right), the kendi, the round box, the small ewer and the vase; in particular the two washers having portraits of typical Mongol ethnic type incised on their bases, with arms folded in the sleeves of their voluminous robes, hats on their heads and clean-shaven faces, and a few three-spurred setting stands with Mongol signature marks and inscriptions impressed on the base. These would favour a Yuan date rather than Song.

A very important clue in our attempt at dating is the cyclical year "Ding-wei" incised on the exterior of the bottom of a saggar. From the characteristics of the other finds, this cyclical year can hardly be one falling in the Song period. However, the cyclical "Ding-wei" occurred twice during the Yuan rule, one fell at the beginning and the other towards the end of the Mongol Dynasty, i.e. nearing the succeeding Ming Dynasty. As the finds in no way approximate the Ming
image, it seems more probable that the date is the first "Ding-wei" of the Yuan Dynasty, corresponding to 1307.

It is true that vessels with unglazed mouth-rims and the ring-saggars in which they were fired were a common feature in kilns at Jingdezhen during the Southern (i.e. later) Song, but from the end of Song to 1307 there is a lapse of only 28 years, and it is perfectly possible for the kiln to have been in continuous operation from late Song till 1307 or so for thirty odd years, and to keep producing some of the wares it had produced from the beginning.

The discovery of Yuan kilns at Dehua has supplied us with a missing link in the history of the development of the Dehua wares.

From what the excavation has revealed, the kiln must have been constructed for a vast scale of production. Yet no supporting workshop or factory of a complementary nature has been found in its vicinity. In view of that, one is tempted to speculate that the kiln might have been a corporate affair for firing the products sent there by potter-families who, just short of that stage, carried on production as so many individual concerns, like cottage industries. The evident lack of standardization in the products, the unevenness of their quality and the incidence of family names like "Zheng" (郑) and "Zhang" (张) found on some of the products lend support to this hypothesis. According to the elders of the Lin (林) clan, the doyens of Dehua, before the mass migration of the Lins to Dehua during the Ming, the Zhengs had predominated the population there. The kiln in question may well have been a corporate business involving at least the local Zheng and Zhang clans.

By The Field Team
in Wen Wu, 1979, No. 5, pp. 51-61

Translated by Lu Yaw

FOOTNOTES
1. See Translator's Comments.
2. Fig. IV, 2.
3. The original says "... must belong to the same period", which obviously must be a slip of the pen.
Remains of the Qudougong Kiln at Dehua.

1. cup-bottomed saggar; 2. large bowl-bottomed saggar; 3, 6, 9, 10. setting-stand; 4. small bowl-bottomed saggar; 5. stilt; 7. ring setting-stand; 8. saggar-cover.

1-7. bowls; 8-10. saucer-dishes.
Fig. V

1-5. mirror writing, impressed or incised on bottoms of bowls; 6. portraiture of a Mongol incised on bottom of a washer.

Fig. VI

1. saucer; 2, 4. ewer; 3. small jar; 5. washer; 6. covered box; 7, 8. cups.

Fig. VII

Bowl-bottomed saggar with inscription "ding-wei nian" in mirror-writing incised on the bottom.

Fig. VIII

Inscription on another saggar.
Fig. IX
Kendi

Fig. X
Small ewer

Fig. XI
3-spurred setting stand with Chinese or Mongol inscription on bottom.

Fig. XII
"cash" mark (top) and Chinese characters incised on bottoms of 3-spurred setting stands.

Fig. XIII
White-glazed vessel with diamond band on the exterior.

Fig. XIV
White-glazed vessel with moulded phoenix motif on the exterior.
Fig. XV
Left: white-glazed jar; Middle: qingpai-glazed small vases with moulded decorations; Right: white-glazed amphora vase.

Fig. XVI
White-glazed washers with unglazed mouth-rims.

Fig. XVII Left: washer with lobed sides; Right: bottom of the washer showing the portraiture of a Mongol.
Fig. XVIII
White-glazed stem-cup with lotus petal decoration.

Fig. XIX
White-glazed, plain stem-cup.

Fig. XX
Covered box

Fig. XXI
Examples of inscriptions incorporated in the moulded decorations on box covers.

Fig. XXII
Chinese characters incorporated in moulded decorations on covers.

Fig. XXIII
Chinese characters incorporated in moulded decorations on covers.

Fig. XXIV
Chinese characters incorporated in moulded decorations on covers.
Fig. XXV  Cups

Fig. XXVI 1, 2. setting of ring-saggers for firing; 3. setting of bowl-shaped saggers.
HOW I VIEW

THE QUDOUGONG KILN OF DEHUA

Dehua District of Fujian Province has an important place in the history of Chinese ceramics. Since 1949 one hundred and eighty odd ancient kiln sites have been discovered there, of which the Qudougong kiln is a major find. Since its first discovery in 1954, several investigations have been made, but this latest is the most thorough and is rewarded by some documented evidence as to dating.

No definite dating resulted from previous investigations, and even the latest excavations have not come out with a clear-cut answer. The nature of the problem is such that we should not be looking for a precise date at which the kiln was in operation, but rather to find clues as to when it got started and when its productive activities came to an end. In the history of Chinese ceramic art, many an ancient kiln had a prolonged life span, e.g. in the South the Yue ware kilns started in the Tang Dynasty and went through the Five Dynasties to Northern Song; the Longquan kilns, from the Five Dynasties through Song and Yuan, right down to the Ming and Qing Dynasties. In the North the Ding and Yaozhou kilns were just as durable. The Dehua kiln under discussion was built on a massive scale, judging from the extent of its remains. It therefore cannot have been the work of a short period.

Generally speaking, what is left of the kiln structure and the remains of kiln furniture and its products should serve to determine the date around which the kiln had ceased to function. The Qudougong kiln has yielded an immense hoard of finds, among which is even a saggar marked "Ding-wei Year". Present excavations have revealed large quantities of "Dunzi" bowls', "brass-gong" saucer-dishes', stem-cups, shufu-type bowls, washers and boxes with moulded linear decoration, all bearing the familiar Yuan mark - and kiln furniture for their firing. All this points to Yuan as the lower limit of the age of the kiln.

Although it is stated in the "Brief Report" (first article in this issue of the translations) that a copper coin carrying the Xi-ning (Song, 1068 - 1077) reign mark was discovered in the ground close to the head of the kiln, and unearthed also were bowls with unglazed rims and ring-saggars for their firing, which remind us of Song yingqing ware of Jingdezhen, the same article also mentions the disturbed conditions of the
deposit layers on either side of the kiln from the head to the middle section. The finds belonging apparently to a pre-Yuan date may, therefore, have got mixed up with artifacts of a later date.

However, the Yuan Dynasty spans nearly a century - 1271 to 1367; how then are we going to place the shut-down of the kilns along this time scale? Here the saggars with the “Ding-wei Year” mark comes in handy. But, unfortunately, the cyclical Ding-wei Year occurred twice during the Mongol Dynasty: first in 1307 in the early part of the Dynasty, and secondly, 60 years later, in 1367, which is almost the beginning of the Ming Dynasty. Judging by the shapes and styles of the ceramic wares unearthed and the glaze resembling the yingying ware of Jingdezhen, it is more likely that the kiln came to an end some time close to the first Ding-wei Year. Furthermore, it was during the Ming that the Dehua ceramic industry was at its most prosperous, so there is less likelihood of a major kiln being abandoned so close to that period.

If the finds among the kiln remains constitute a reliable clue to the dating of the kiln to the time when it was abandoned, they should not have among them artifacts of a different age, unless they are found in a layer underneath the kiln remains. The “Brief Report” has it that “evidence of vessels with unglazed rims and of ring-saggars for their firing are also found below the kiln”, these therefore should not be confused with finds among the kiln remains. To determine the date when the kiln was founded, we need to have recourse to the contents of the lowest deposit layer around the kiln. This procedure follows the common sense dictate that in the early days of the existence of the kiln, any waste from the kiln would probably have been disposed of and deposited around the kiln; therefore the earliest deposits should be found at the lowest level, that is, if the layers have not been disturbed. However, according to the “Brief Report” the contents of the two lower layers of deposits bordering the kiln are essentially alike and similar to the contents of the lower layer of the kiln itself; hence, the conclusion is drawn in the Report that all might be the products of the same period.

The nature of the deposit layers in the vicinity of the kiln, as indicated in the “Brief Report”, may be due to depositions from one and the same period or from depositions from different periods with the layers having been disturbed over time; in either case the contents would still for the most part be alike as the Report maintains. Deposit layers are in fact commonly subject to disturbance of one kind or another. Sometimes in the early life of a kiln, alterations or the expansion of operations might cause the deposits to be moved about; or subsequent agricultural activities might bring disruption to the peaceful repose of the layers. By all accounts it looks as if the Qudougong kiln site has suffered some severe disturbance so that artifacts of earlier and later times are found intermixed. This phenomenon is not uncommonly found in the course of investigating ancient kiln sites, especially those which have a long history to their credit. In this respect there is good reason to believe that the Qudougong kiln could have been in operation for a long time indeed.

In the circumstances, the earliest date that can be assigned to the existence of the kiln has to be determined by comparing the finds among the kiln remains itself, like the typical Yuan pottery, e.g. shufu bowls, stem-cups, etc., and the kiln implements for their firing, with the contents of the disturbed layers in the vicinity, and noting the articles that are dissimilar, i.e. those not found within the confines of the kiln itself. In this case the finds among the surrounding layers that are dissimilar from those found within the kiln are vessels or sherds with an unglazed band round the rim (not to be confused with Yuan pottery fired in pairs, rim-to-rim and stacked foot-to-foot, without intervening saggars, which are also without glaze on top of the rim) and ring-saggars for their firing (fig. 1). This shows that at an early date before the kiln was abandoned in 1307, or shortly afterwards, this kiln must have engaged on a large scale in the production of pottery fired on the rim.
The firing-on-the-rim or upside-down method originated in early Song at the kilns producing the famous Ding ware. At the time of the Southern Song, as an answer to greatly increased demand both at home and abroad for their products, the Jingdezhen kilns adopted this method, thus dispensing with the box saggars which could only hold one pot at a time, whereas the ring-saggars for supporting pots on their rims were simple and space-saving - thus facilitating large scale production at reduced cost. The yingqing-type of white ware thus produced from Jingdezhen came to be known as "Southern Ding". This production technique soon became widely adopted in other parts of China. Certain modifications in the products had to be introduced to suit this technique, e.g. a narrow band on the mouth-rim had to be left unglazed so that the rim would not stick to the ring-saggar. The foot had to be made as low as possible to facilitate the stacking of the ring-saggars one on top of another; and these came to be recognized as some of the salient characteristics of Southern Song pottery.

The province of Fujian, in which Dehua is situated, is adjacent to Jiangxi Province to the west and Zhejiang Province to the north and facing the sea on the south-east, on the coast of which Quanzhou, a great entrepot in Song-Yuan times, is situated. Much of the qingci (celadon ware) from Longquan (in Zhejiang) was exported from the port of Quanzhou. This traffic in pottery from the two neighbouring provinces had no doubt exerted a great influence on the ceramic industry of Fujian, which accounts for the striking evidence of Fujian kilns imitating Longquan and Jingdezhen wares on a big scale. What could have been more natural, therefore, for Dehua kilns to adopt the "upside-down" method of firing at about the time of Southern Song? The shapes and the yingqing-like glaze of this type of Dehua ware are further evidence of this Jingdezhen influence at the time.

Yet further evidence may be cited in support of our contention. Among the ceramic wares salvaged from a sunken ship of undoubted Song date off the coast of Quanzhou, there is a bowl with an unglazed mouth-rim just like those found at the Dehua kiln site. Among the ceramics recovered are Longquan and Nanan (Fujian) qingci of Southern Song date.

From the above we may safely say that the Dehua kiln was probably founded in late Song and abandoned in early Yuan.

The development of the ceramic industry in Fujian is closely related to the export trade in ceramics. Mention has been made of Quanzhou on the south-eastern coast as a great entrepot in those days. Since 1949 a number of Song kiln sites have been located to the east of the port. Ancient kiln sites have also been located in districts to the north of Quanzhou, including Dehua, and to the south, such as Nanan, being noted for its qingci (celadon ware) which has been nicknamed "native Longquan". No doubt, much of this Fujian ceramic ware must have been exported by way of Quanzhou. Among ceramics of Chinese origin extensively unearthed overseas, stretching from Northeast Asia through Southeast Asia, to West Asia and North and East Africa, a large proportion can be identified as manufactured at Dehua, in particular those found in Southeast Asia.

Massive finds of Dehua wares have been brought to light in the Philippines since 1964. Among them are pouring vessels, kendi-type ewers, stem-cups, covered boxes, saucer-dishes, bowls, vases, jars, etc. They are in the main products pressed from moulds, and have slightly raised linear decorations moulded on the surface, just like the products of the Qudougong kiln found among the remains. The quality of the Philippine finds likewise varies, the paste in some cases is harder and purer than in others; and in some the glaze resembles yingqing; in others it has an ivory tinge. The vessels are either those fired in box saggars or rim-to-rim, but none seem to have been fired upside-down in ring-saggars like the Southern Song sherds found in the lower layers at the Qudougong kiln site (figs. 2, 3, 6, 7, 9 and 10).
Likewise, in Indonesia large quantities of Chinese qingci and yingqing ware have been unearthed from time to time, and among the latter a large proportion can be distinguished as originating from Dehua. Fig. 5 shows a kendi unearthed in East Java. It is in form and decoration akin to similar ewers recovered from the Qudougong kiln remains (fig. 4). Another example of Dehua ware of the early Yuan period is illustrated in fig. 8, this time excavated in East Malaysia - Sarawak. This, too, has its parallel among the finds from the Qudougong kiln (fig. 6).

By Li Huibing
in Wen Wu, 1979. No. 5, pp. 66-70

Translated by Lu Yaw

FOOTNOTES
1. Fig. IV, 2 in "A Brief Report on the Latest Excavation of an Ancient Kiln Site at Dehua in Fujian".
2. Fig. IV, 8 in "A Brief Report on the Latest Excavation of an Ancient Kiln Site at Dehua in Fujian".
3. See Translator's Comments.
Fig. 1
Qingpai-glazed sherds of bowls with unglazed mouth-rim, one piece (lower right) showing an almost solid foot, and fragment of a ring-saggar (upper left).

Fig. 2
Small ewers unearthed at Qudougong kiln site.

Fig. 3
Similar ewers unearthed in the Philippines.

Fig. 4
Kendi unearthed at Qudougong kiln site.

Fig. 5
Similar kendi unearthed in East Java.
Fig. 6
Small vases unearthed at Qudougong.

Fig. 7 (top left)
Similar vases unearthed in the Philippines.

Fig. 8 (top right)
Another vase of the same type unearthed in Sarawak.

Fig. 9 (left)
Covered boxes unearthed at Qudougong.

Fig. 10
Covered boxes unearthed in the Philippines.
Since its discovery in 1953 the Qudouqong kiln site in Dehua District of Fujian has been investigated several times, and the results of three such investigations have been published: one in "Wen Wu Cankao Ziliao", 1955, No. 4, followed by a shorter account in the same journal, 1957, No. 9, the third appearing in "Wen Wu", 1965, No. 2 (see fig. 1). However, from reading these reports, one gains the impression that the previous investigators either did not carry out excavations or did only a perfunctory job of it, as the specimens, which seem to be few in number and consists mainly of sherds, are said to have been picked up from the ground surface, or from the exposed surface of some pit or cut, in sharp contrast to the latest excavation with which the two articles here translated are concerned. (As a matter of fact, there is another article in the same issue of "Wen Wu" from which our two translations have been made. The untranslated essay is entitled "Some questions raised by the kiln site excavation at Qudouqong, Dehua", by Zhen Fan, in which the author dwells at some length on the turbulent decades following the early years of the Yuan Dynasty which Fujian was fated to go through, culminating in the demise of the Mongol rule, in the midst of which the kiln, in his view, must have been abandoned. In other words, the Ding-wei Year is more likely to be the second, i.e. the one corresponding to 1367, rather than the first (1307), in the course of the Mongol rule, thus disagreeing with the view given in the other two articles.)

The latest excavation seems to concern itself with deposits below the ground surface, right down to the foundations of the kiln structure and under; and among the enormous quantity of the finds there is none of that famed white Dehua ware known in the West as "blanc-de-chine", which the Chinese believe to have reached the height of excellence and production during the Ming Dynasty, though P.J. Connelly, author of "Blanc De Chine", places its "classical age" in the Qing. Incidentally, Connelly has had the three reports of the previous investigations translated and included in his book under Appendix II. However, as the translator seems to come out second best from a struggle with the subtleties of some Chinese expressions, the translations might not be very helpful to those who are not able to see the misinterpretations for what they are. Anyway, he appears to have been looking in those articles for material to support his belief and tends to doubt the validity of those views expressed therein which do not favour his contention; what is more, some of the points he questions turn out to be not what the Chinese authors have meant, but rather what the translator has made them out to be.)

On the other hand, on the three earlier occasions, even though the specimens collected were few, examples of blanc-de-chine did figure among specimens in the same category as those assembled from the latest excavation. This could indicate that the deposit layers in question must have been badly disturbed, or the specimens were picked up from different areas, as indeed mention is made in the report in Wen Wu, 1965, No. 2 that the blanc-de-chine type of specimens were found on one side of a road and the Yuan type on the other.
Attention must be drawn to an illustration to the translated article entitled “How I view the Qudougong Kiln of Dehua”, namely fig. 5 therein. In the view of the author, the kendi from East Java is of the same type as those unearthed at the Qudougong kiln site. In fact, it is not. We in Southeast Asia have easy access to a great number of both types. Though the glaze and paste of both are sufficiently alike, there is a marked difference in the way decorations are moulded on the wares. In the case of the Qudougong wares, the decorations are in very fine lines, some only faintly raised; other than floral designs, borders, frills, marks and even words are frequently incorporated; yet another characteristic feature of decoration is the predominance of a band of upright lotus petals going round the exterior of a vessel close to its base. Whereas, on the other type of ware, the moulded designs are executed in much thicker lines and bolder in relief, and the pattern consists mainly of a modified form of the so-called classical scroll. This kind of decoration is sometimes known as the “gurii” scroll. The shape of this ware, such as the ewer and the covered box, also has rounder proportions where it is luted (Compare fig. 5 with fig. 4 of the same article and fig. IX of the first article), while the Qudougong ware appears heavily compressed round the band of the luting, or where the cover of the box meets the lower portion, giving an angular, rather than a curved, effect.

As a matter of fact, the Chinese archaeologists have identified this non-Qudougong ware as having originated from one of the kiln sites in Anqi District, also of Fujian but not from Dehua, though not far from the latter to the south. The results of their investigations are published in Wen Wu, 1977, No. 7 under the title “Investigations on Ancient Anqi Kiln Sites”. Figs. 2, 3, 4 and 5 are reproduced from that report, and figs. 6 and 7 illustrate these two wares quite common in the collections in Southeast Asia. Indeed, we in Southeast Asia could provide an impressive range of specimens of these two wares to complement the finds from the ancient kiln sites in Dehua (fig. 6) and Anqi (fig. 7). And just as the first of our translated articles describes it, there is a wide variation in the quantity in the wares found in Southeast Asia, from the very coarse, inferior, under-fired paste and glaze to the hard, highly vitrified and white porcelain and pearl-luminant glaze, either pure white, ivory or yingqing-like. In some cases the glaze is not unlike that on blanc-de-chine, both in colour and texture; so also does the paste sometimes approach blanc-de-chine, including even the “curled” effect, as described in Connolly’s book. Again, the glaze is smooth and pearl-like in texture in many specimens, and usually thin, though matted and thick and usually uneven in others, like the shufu-type bowls and saucer-dishes with slip decorations which are in most part blurred under the thick and opaque glaze. Generally speaking, both from the illustrations in the Wen Wu and from actual specimens seen in Southeast Asian collections, the Anqi ware is on the whole of higher quality, with the glaze usually reaching its foot, and this is not so with the bulk of the Dehua ware.

The fact that the Chinese archaeologists have to cite examples from overseas collections to check with their finds from the old kiln-sites may, on the face of it, appear strange. But we must understand that wares like these were made for use by the common masses at home, though incidentally they also found an export market. That is why they were not found in the imperial, or even private, collections in China. Abroad, they have been accorded a greater measure of appreciation, and much has been buried with the dead or handed from generation to generation as heirlooms - hence much more has been preserved. This is so with many of the so-called export wares, of which maybe only a few specific items were made solely for export, the bulk being simply those same wares made for the home market, which also happened to be good for overseas trade.

LU YAW

Singapore, March 1980
Fig. 1
Box and cover (above), and washers (below), illustrations taken from Wen Wu, 1965, No. 2.

Fig. 2
Examples of washers and box covers from Kueidou kiln sites at Anqi, (from Wen Wu, 1977, No. 7)

Fig. 3
Examples of box covers and other vessels from Kueidou kiln site at Anqi, (from Wen Wu, 1977, No. 7)

Fig. 4
Sherds of octagonal box cover, (from Wen Wu, 1977, No. 7)

Fig. 5 Sherds of covered boxes, (from Wen Wu, 1977, No. 7)
Fig. 6 Examples of Dehua ware found in Indonesia. (Courtesy of Mr. K. T. Goh, Singapore)

Fig. 7 A covered box found in Indonesia, an example of Anqi ware. (Courtesy of Mr. K. T. Goh, Singapore)
CHINESE PORCELAIN FOUND IN A SHIPWRECK ON THE SEABED OFF SINAN, KOREA

In 1976 a shipwreck was discovered on the seabed off Sinan, Korea. It has been reported that among the 7,168 items salvaged, 6,457 items were porcelain wares which included 3,466 greenwares, 2,281 white wares, 117 black glazed wares (temmoku), 79 Jun wares, and 574 other types of pottery and porcelain wares. Also found were 230 metal wares including 130 pieces of bronze such as candle-sticks, incense burners, weights, cymbals, pots made of brass, and 33 bundles of bronze coins, 10,600 pieces in total. The rest comprised 448 items including stone mortars, lacquerware, fans, crystal balls, chessboards, pepper, cassia bark, wooden chests, etc. The salvage workers estimated that all these made up only one-third of the total cargo in the wreck, two-thirds being still in the wreck lying at a depth of twenty metres. Of the 6,457 porcelain wares, only three pieces were Korean, the rest were entirely Chinese.

The porcelains found in the wreck may be classified according to the various kiln centres to which they belonged. These are Longquan greenware; yingqing ware (also called jing pai), Shufu ware and white ware of Jingdezhen; white glazed ware with brown spots and black spots, and black glazed ware of Cizhou; Jizhou ware; black Jian ware also known as temmoku; Jun ware; and other coarsely made wares of dark brown, yellowish-brown, and black glaze. The bulk of the finds are Longquan greenwares, yingqing, shufu and white porcelain of the Jingdezhen kiln centre.

1. Longquan Greenwares

Longquan county of Zhejiang province is the centre of the main kiln sites for Longquan ware. Developments during the Yuan Dynasty resulted in expansion of the centre beyond Da Yao in Longquan county to other districts such as Zhukou and Fengtang in Qingyuan county, and kilns were more heavily concentrated in the area from eastern Longquan to both banks of the Oujiang river of Lisui county. Some kilns have also been discovered in Yunho county and Yongchia county downstream from Oujiang. The number of kilns exceeded 150 in total, surpassing those of the previous dynasty both in kiln size and area. The ex-
pansion down to both banks of the Oujiang made for easier transportation, and the est-
establishment of the Maritime Trade Bureau 市舶务 in nearby Wenzhou in the Song Dynasty resulted in improved facilities for the export of greenwares, thus accelerating the pace of development of the Longquan kilns.

Research into the expansion of the Longquan kilns and the excavations at Da Yao and other kiln sites has given us a clearer understanding of the Longquan kiln products of various periods, their sequence of development, and their respective characteristics. The fact that many Song to Ming Longquan wares have been unearthed from ancient burials in various places, particularly those from the excavations of Yuan Dadu in recent years, providing us with abundant specimens of porcelain wares produced during the middle and late Yuan Dynasty, has created a sound basis from which to analyse the Longquan wares found in the wreck.

The shapes of Longquan wares found in the wreck are varied. They range from utensils such as bowls, stem-cups, alms-bowls (bo), cup-stands, dishes, wash basins (yi), jars (guan), spouted ewers, mei-ping vases, boxes, druggists' mortars, droppers, etc., to items for ornament such as vases, incense burners, flower pots, vases with five tubes (hua-cha), and Bodhisattva, etc. (Plate II, 6).

The bowls with rounded lip, steep sides and small foot-rims found in the wreck are decorated both inside and outside; outside with linear decoration and incised lotus petals, inside with lotus flowers, plum twig and moon, peony scrolls, etc. and some with characters "上色青瓷" (fig. 1) written in black-ink. Frequently three or four parallel lines are found on the exterior of the mouth-
rim, crossed at intervals by three short incised marks. The lotus petals on the exterior of the bowls are of elongated shape, some being like chrysanthemum petals. Similar decoration sometimes appears also on the lipped mouth-rim dishes. Porcelain wares with such characteristics are typical wares of the Yuan Longquan kilns. They are to be found both in the remains of Yuan Dadu and at other Longquan kiln site remains (Plate I, 1-4; Plate II, 3-4; Plate III, 1-2).

There are two types of stem-cup found in the wreck: one with tall flared stem, many of this type having been unearthed at Yuan Dadu; the other type has a rounded lip, a deeper and rounded body with a more waisted stem, and commonly found in Longquan kiln sites (Plate III, 3-4).

The alms-bowls with inverted mouth found in the wreck are decorated on the exterior with a continuous lotus petal motif, a form of decoration which appeared during the middle and late Yuan periods and is often seen among the wares found at Longquan kiln sites and in Yuan burials, see for example, the one unearthed from a Yuan tomb dated the Third Year of Huangqing (1314) in Beijing (Plate IV,1-2).

Cup-stands (fig. 2) were also popular during the Yuan period and such wares have been discovered at Yuan Dadu and at Longquan kiln sites.

There are two types of saucer-dishes found in the wreck - those with rounded lip and plain mouth-rim, and those having a flattened mouth-rim, some of the latter type being made in the form of lotus petals and so designed in order to prevent warping of the rim (Plate 1, 1-2; Plate V, 1-2). Techniques of decorating the dishes include incising, impressing and applique. The motifs include peony scrolls, chrysanthemum, lotus flowers, classical scrolls, dragons, phoenix, twin fish, etc. Some of these motifs such as dragon, phoenix, and twin fish had appeared during the Southern Song, and continued to be very popular in the Yuan period. Some of the dishes from the wreck have characters incised on the base such as "Shi Si Shuai Fu Gong Yong" 使司帅府公用 (Plate V, 3-4), or have inscriptions in black on the interior of the dish such as "口盘口口", etc. Many dishes with similar characteristics and decoration have
been discovered at Yuan Dadu and Longquan kiln sites. Longquan dishes decorated with lotus petals have also been found amongst a large quantity of porcelain wares discovered in a junk of Yuan date excavated at Kaiho village in Cixian, Hebei. This wooden vessel bearing the name "Zhangde Feng Sheng Liang Quan" (provision boat of Zhangde sub-province) may be given a date after the Twelfth Year of Zhizhen (1352)^2.

The wreck also contained ribbed washers with fluted interiors, such Yuan characteristics being common amongst finds at Dadu and Longquan (Plate II, 1-2).

Also in the wreck were Longquan jars, the largest having a fluted body with a lotus leaf cover, and glazed on the base. Another piece has the inscription "元字系拾叁号III(押)" (Number Yuan 73 followed by an indecipherable mark) in black ink round the base, the foot-rim where the biscuit is exposed being reddish in colour. This colouration is due to the presence of iron in the clay which oxidises the exposed biscuit during the course of firing, and is characteristic of many wares found among the remains of the Dadu and Longquan kilns (Plate VI, 3-5).

Among the unusual Longquan wares found in the wreck are spouted washers (yi) (plate IV, 4), dishes with plum blossom applique in the centre, and jarlets, all decorated with a pattern of brown spots in the glaze. This was a technique created by the Yuan potters based on methods used in applying brown colour decoration on greenwares during the period of Eastern Jin (317-419). Though this is a characteristic Yuan technique, not many of these wares have been unearthed from Longquan kiln remains.

There are many types of greenware vases found in the wreck: vases with fish handles (Plate II, 5), phoenix handles, and elephant trunk handles combined with floral and cloud scroll bands. There are more than ten vases types in all, including those with cup-mouth and elongated neck, five-tube flowerstands (hua-cha), pai-chai ping (cabbage-shaped body with ring handles), archaic bronze zun shapes, tube handled vases, garlic mouth vases, cloud and dragon vases, dan-ping (tall necked, pear-shaped vases with flared mouth), small vases with integrated stands, and large vases with floral scrolls round the body.

All the types described in the previous paragraph have been found in Longquan kiln remains. The style of most of these wares, common to the Southern Song, continued to be popular in the Yuan Dynasty, and it is understandable that wares of this type have been discovered in the wreck.

The outstanding features of the large vases decorated with floral scrolls are the curved horizontal lines round the neck, the mid-section of the body bearing carved peony or lotus scrolls or flowers in relief, and supported on the lower portions by a band of elongated lotus petals (Plate VI, 1-2). These vases are tall (the taller one in the wreck is 84 cm in height) and thickly potted. Large vases like this found in Longquan kiln sites made their debut in the Yuan Dynasty. They have also been found in Dadu remains and in a hoard found at Pai-ta village, a suburb of Huohouoteshi City, Inner Mongolia. Three vases unearthed in Inner Mongolia were found together with a Jun ware incense burner marked with cyclical year "己酉年". This corresponds with the the Second Year of the Zhida reign (1309) of the Yuan Dynasty, hence the date of the large Longquan vases should approximate fairly closely to that of the incense burner.

There is one yu-hu-chun (bottle vase) with embossed decoration round the body, consisting of three raised horizontal lines round the neck, cloud and dragon decoration on the body, and wave pattern design near the base. The shape and decoration of this piece are similar to those found in Longquan greenwares unearthed from a Yuan tomb at Beianho in Haining, Beijing (Plate VII, 4-5).

The incense burners found in the wreck comprise various styles including those with circular ribs and three small feet, those with
tripod legs, "li" shapes, "ting" shapes with 
trigram decoration, censors with elephant 
trunk lugs and ring handles, hexagonal 
censors with lotus flower decoration, and 
"lien" shapes with chrysanthemum or peony 
scrolls. The "li" tripod (Plate IV, 3) is in 
imitation of an ancient bronze style, as are 
those with circular ribs and three feet, those 
with eight trigram decoration, and the chry-
santhemum or peony "lien" types. They had 
already appeared in the Southern Song and 
their production continued in the Yuan 
period. They are often to be found among 
the wares in remains of Yuan tombs and 
Longquan kiln sites. Two pieces of the 
"lien" type unearthed from a tomb dated 
Third Year of Zhida (1310) in Xuanzhou, 
Fujian, are identical to those "lien" type 
censors found in the wreck (Plate VII, 1-3).

Consideration of the form and decoration of 
Longquan greenwares recovered from the 
wreck as described above leads to the view 
that they are mostly products of the Da Yao 
kiln of Longquan county, especially the tall 
and heavy vases, and the large jars and 
dishes. Characteristics of Yuan Da Yao 
products are: a refined hard body of greyish-
white colour, unglazed foot-rims burnt 
orange, body smooth and neatly potted. 
Forms are stable and elegant with well 
defined angles, foot-rims having vertical 
walls, and cut square at the base. Yuan 
Longquan wares are generally glazed only 
one, the glaze being thin and rather tran-
slucent, yellowish-green, blue-green or pea-
green in colour, and of a clear, soft tone.

Some of the greenwares from the wreck 
such as ring handled vases, small mouthed 
medicine jarets, cloud and dragon jarets 
(Plate XI, 4), incense burners embossed with 
floral designs, etc., are products of the 
Qikou kilns. Decoration is generally applied 
or carved in relief. All these characteristics 
of the Yuan Longquan kiln products are 
identical with those found in remains at 
Yuan Dadu, in Yuan tombs and from buried 
hoards. The Longquan greenwares 
discovered in the wreck also have the same 
characteristics.

2. Yingqing, Shufu and white wares of 
the Jingdezhen group of kilns

The Jingdezhen kiln is one of the most 
famous of China’s ancient kilns. Its products 
had already become export items in the 
Tang and Song dynasties, while in the Yuan 
the production of porcelain was expanded, 
based on the foundations established during 
the Southern Song; and records show that 
more than three hundred government and 
private kilns extended over a wide area at 
that time. Jingdezhen became the centre of 
porcelain production in the country during 
Yuan, and its products were sold widely 
both in domestic and foreign markets. The 
Jingdezhen Museum of Pottery and Porce-
lain records that since 1949 more than forty 
kiln sites built during periods of the Tang 
through to Ming have been found in this 
city and its vicinity.

Most of the yingqing and white wares 
found in the wreck are from these kilns. 
They include bowls, stem-cups, dishes, 
ewers, jars, vases, incense burners, 
droppers, head- rests, etc.

The yingqing and white glazed bowls, 
stem-cups (Plate III, 5-6) and dishes are de-
corated both inside and externally with 
the motifs such as cloud and dragon, fish, 
phoenix, leaves, "chrysanthemum, lotus or 
plum flower petals, peony scrolls, etc. 
Some of the white glazed bowls bear the in-
scription "玉出鳯山" (jade from the Kun 
mountain) (Plate IX, 4) on the interior, 
and others carry the words "上色白麗" (bowl 
of superior whiteness) (Fig. 3). Noteworthy 
is the fact that the mouth-rims of the bowls 
and dishes are bound with silver, these 
wares having been fired in an upside down 
position in imitation of the Ding ware pro-
duction methods, although the production 
of Jingdezhen porcelain in this way during 
the Yuan period gradually declined (Plate IX, 
1-3).

In recent years, Song and Yuan kilns pro-
ducing yingqing ware have been located in 
such places as Jiangshan, Taishun in Zhejiang 
province; Cian, Gangzhou, Leping in Jiangxi
province; Guangze, Mingqing, Dehua, Tongan, Quanzhou in Fujian province, and some of these kilns have yielded yingqing ceramics produced by the upside down method of firing\(^\text{16}\). Could the yingqing wares found in the wreck have been products of any of these kilns?

Ewers found in the wreck are of several shapes: double gourd, rectangular, and vase-shapes with lids; some with dragon form handles, lidded ones of yu-hu-chun form incised with a phoenix motif with plantain leaves on the neck and lotus petals on the lid; others impressed with keyfret and floral scrolls on the body. The ewers in double gourd shape, of charming appearance, with a pattern of brown spots applied to the bluish-white glaze, are a decorative innovation. The dropper in the shape of a boy riding on a water-buffalo also shows such decoration. Some jarlets and double gourd shaped ewers from the Yuan Dadu remains show similar characteristics (Plate VIII, 1-3).

Yingqing vases in the wreck include meipiing, yu-hu-chun vases, twin-lug vases, jarlets with stands, etc.; shapes of the twin lugs include clouds, fish, "ru yi" lappets, and rectangular shapes. A yingqing yu-hu-chun vase with a cloud and dragon motif unearthed from the foundations of a Yuan period pagoda at Wayeo village, Fengtai, Beijing\(^\text{11}\), looks identical to those found in the wreck which have plantain leaves round the neck. The motif of dragon cavorting in clouds with a broad band of lappets round the lowest portion of the body is similar to the decoration found on the yingqing meipiing and jars in the wreck. This decoration and style is also similar to that on the large blue-and-white bowls unearthed from the Yuan Dadu remains (Plate X, 1-5; Plate XI, 5-6).

The most remarkable piece of yingqing found in the wreck is a pillow or head-rest ornamented with a reclining human figure. Upon a rectangular base with rounded corners, there is modelled a female figure wearing a long gown fastened down the front, in a reclining position with the left-hand supporting the head; behind her a column in the shape of a tree trunk serves to support the oval shaped head-rest. The surface of the head-rest, which is slightly concave and upward curling at both ends, extends over the reclining figure, and is incised with a motif of branching veins, the whole being in the shape of a large lotus leaf. The shape of the head-rest is very unusual, the lines of carving delicate and fluid, and this is really a masterpiece of the Jingdezhen potters’ art. It is interesting to note that a similar porcelain head-rest was discovered in Chenjiang, Jiangsu province\(^\text{13}\). Though the surface of this piece is damaged, the female figure reclining on the base and wearing a long gown is identical and perhaps even appears to be prettier. In the book entitled “Pottery and Porcelain” by American author, W.E. Cox, on page 136, there is illustrated a yingqing porcelain head-rest from the collection of the Metropolitan Museum of Art, which is similar in design to the head-rest from the wreck and the one found in Chenjiang (Plate XII, 1-3).

In addition to the foregoing wares, the yingqing phoenix shaped droppers and the three-legged incense burner with twin handles, together with other pieces found in the wreck, are similar in design or decoration to those found in the Yuan Dadu remains (Plate XI, 1-3).

The production of Yuan Jingdezhen kilns not only includes the yingqing and white porcelain with characteristics inherited from Southern Song in that they are fine wares, thinly and neatly potted, with body of refined white clay of high density, with a thick, unctuous and rather translucent glaze; but also the large thickly potted wares, coarse of fabric and with thin uneven glaze which first appeared during the Yuan period. In addition, these kilns also produced smaller wares of coarse and inferior quality. The foregoing characteristics are common to most of the yingqing and white porcelain wares found in the wreck hence, in our view, they may be considered to be products of Jingdezhen. Since 1949, more than thirty kiln sites of Song and Yuan date have been discovered in various provinces in South and Southeast China, in addition to Jingdezhen, where yingqing porcelain has
been made. Wares from these kilns are also of varying qualities, but until we are able to examine the material from the wreck, it is not possible to attribute any of the pieces from the wreck to these kilns.

Bowls in the wreck with straight sides, slightly tapering to an angled base, are typical of Yuan Jingdezhen kilns and are commonly called “Shufu bowls” (Plate VIII, 4-5). Generally, the interior of such bowls has decoration consisting of peony scrolls, lotus flowers or chrysanthemum petals. The glaze differs from that of yingqing, and is of a milky greyish-green colour termed “moon white” or “Shufu” glaze. The lower limestone content (10%) of the glaze tends to result in slight under-firing which produces an opaque effect, and the resultant apparently thicker glaze tends to render the incised decoration less clear.

The shufu wares from the wreck also include shallow bowls or dishes with plain rims (fig. 4, 1-2). The shape and decoration of these bowls and dishes are similar to the shufu bowls and dishes unearthed in large quantities at Yuan Dadu, and those bowls marked with “Shufu” recovered from the Yuan wooden junk at Cixian.

The production of Jingdezhen shufu ware has been traced in recent years to the Hutien kiln. Research by the Jingdezhen Bureau of Pottery and Porcelain indicates that the glaze used in the production of shufu ware was highly cohesive. This caused the use of spurs to be discontinued and refractory sand was used instead to serve as a cushion. This facilitated more economic stacking of the wares and improved the efficiency of the kiln, resulting in a higher volume of production. A further innovation followed, namely the use of thicker foot-rims, so required to prevent the piece sinking into the sand during the firing process. The wares made in this manner were better able to withstand the hazards of transportation to export markets, and thus assisted the development of the Jingdezhen porcelain industry.

The large scale production of shufu wares at Jingdezhen during the middle and late Yuan periods, as a result of technical improvements, resulted in a tremendous increase in sales of these wares both inside and outside China. These wares have been found not only in Yuan Dadu remains and in the wooden junk at Cixian, but also in other parts of the world such as Iran, Tanzania, Egypt, the Philippines, etc., therefore, it is not surprising to find numerous shufu wares in the wreck which are very likely to have originated from the Hutien kiln of Jingdezhen.

3. Wares from other kiln centres

Not many of the wares found in the wreck are products of other kiln centres. There are black glazed jian bowls (Plate XIV, 3), and jarels (temmoku), and jizhou white glazed ware with black floral designs, depressed, pear-shaped body and elongated neck (dan ping) (plate XI, 1). Attention should be drawn to two white glazed jars, one decorated in brown, the other in black (Plate XIII, 1-4); and a black glazed ovoid jar with small mouth and two loop handles (Plate XIV, 4-5). These pieces are strikingly similar to wares unearthed from Yuan Dadu remains and from kilns producing cizhou type wares at Pengcheng in Hebei, and Hopiji in Henan¹⁴, and elsewhere, in the glaze colour, decorative motifs and style of drawing, and are considered by us to be products of such kilns. A flower pot with flat mouth-rim decorated in wave pattern, a small hole in the base, and with a milky bluish-white glaze, resembles in shape the flower pots made at Longquan kilns (Plate XIII, 5-6). This and the three-legged washer (bulb bowl) with bosses decoration, and the ewers of similar glaze colour, are all jun wares. Such wares have been discovered in the Jun kiln remains at Yuxian in Henan¹⁵, and Yuan Dadu.

In the wreck, there is also one group of roughly potted ceramic wares of coarse and porous body showing pronounced wheel marks on the surface, on which a thin layer of brown or black glaze has been applied. Shapes include jars with a flat mouth-rim
and twin-handled elongated jars, tapering to a small base. Such wares have been found in large quantities at Yuan Dadu remains and in the Yuan wooden junk at Cixian in Hebei, and were in use by the common masses at that time. Private kilns making these wares were widespread in Henan, Hobei, Shantong, Shanxi, Jiangxi, Zhejiang, Guangdong, Fujian, etc. (Plate XIV, 1, 2, 6, 7).

4. Dating of the wares and of the wreck

From the foregoing account, the Chinese ceramics found in the wreck, and those wares of middle and late Yuan period unearthed in China have much in common in so far as their shape and decoration is concerned. We are, therefore, of the view that the wares from the wreck are likely to be of this period and, to be more specific, we suggest after the Yuan Dado reign (1297-1308).

Our foregoing analysis in support of our conclusion may be summarised as follows:

1. The large Longquan vase with the inscription Second Year of Zhida reign (1309) unearthed from the hoard at Huohaoqeteshih in Inner Mongolia; the three legged “tian” shaped Longquan incense burner with floral motif discovered in a Yuan tomb dated Third Year of Zhida (1310) in Quanzhou, Fujian; and the Longquan alms-bowl with inverted mouth and twin fish decoration discovered in a Yuan tomb dated Third Year of Huangqing 皇庆 (1314) are all distinctly dated and have characteristics in common with the same type of porcelain wares recovered from the wreck.

2. The porcelain wares discovered in the wooden junk named “Zhangde Feng Sheng Liang Quan” in Cixian, Hebei, were made after the Twelfth Year of Zhizhen (1352). Among them were Longquan greenware dishes with lotus petal design, Jingdezhen Shufu bowls, yingying stem cups and other coarsely made jars, etc., all of which are identifiable with those wares of similar type found in the wreck.

3. Various porcelain wares unearthed from the Yuan Dadu remains, and many of the wares found in the wreck not only share the same broad characteristics, but some have identical decoration down to the minutest detail. These Dadu remains lie beneath the Northern City Wall of Beijing, built in the eighth moon of the First Year of Hongwu (1368), hence the latest date attributable to the porcelain wares found in these remains would be just prior to the First Year of Hongwu. The archaeologists accordingly have concluded that the majority of the wares found in the Dadu remains are datable to the middle and late Yuan, and this presents a strong argument in favour of attributing the porcelain wares found in the wreck to the same period.

4. The Jingdezhen Bureau of Pottery and Porcelain records that Shufu wares came into use between the middle and late Yuan. Many Shufu wares for everyday use were found in the Yuan Dadu remains and in the wooden junk built at the end of Yuan in Cixian county. Similar Shufu wares also appeared in the wreck, and all the foregoing types manifest characteristics of porcelain wares typical of the middle and late Yuan periods.

In addition to the above, the characteristics of the three pieces of Korean porcelain found in the wreck are also consistent with porcelain made during the above period. All of these pieces are greenwares - of which two are Kang-jin ware, the other being Pu-an ware.

Research indicates that Korean greenwares may be dated to three periods. Whilst the technique of inlaid work on Korean greenware first appeared in the second period, the three pieces found in the wreck probably belong to the third period which extends from the 12th to the 14th century.

Some sherdsof Korean greenware have been discovered in the Yuan Dadu remains, one being part of a lid, the other part of a mouth-rim of a jar or vase. Both sherds have
white inlaid decoration, the lid remnant having a crane and cloud motif similar to that on the kang-jin period greenware dish. This goes to show that the porcelain wares found in the wreck and the sherds found in the Dadu remains are all datable to the first-half of the 14th century.

The dating of the porcelain wares in the wreck has now been assessed, and we are left to consider the date of the shipwreck itself.

First, we must take account of anything in the wreck which bears a distinctive date. Hitherto, estimates of the time of the wreck have been based in relation to the latest date on one group of copper coins - “Zhi da tong pao” - among more than a hundred thousand coins found. As is well-known, “Zhi da tong pao” coins were minted in the Third Year of the Zhide reign of Emperor Yuan Wuzong (1310). However, what in our view is a more important clue in estimating the date of the wreck is the Longquan greenware dish bearing the six character inscription “Shi si shuai fu gong yong”.

“Shi si shuai fu” is presumed to be an abbreviation of the expression “Xuan wei shi si tu yuan shuai fu” (Office of the Pacification Commissioner and Area Commander). According to the Yuan Annals, Section 7 under “Establishment”, Pacification Commissions were established in six tao (administrative areas). One of them was at Zhide (eastern Zhejiang) now Ningpo, but the combined office referred to above had not then been instituted. Section 7 of the Annals only recorded events up to the Third Year of Zhide (1332). It was not until the reign of Zhide when peasant uprisings were widespread throughout the country that the combined office of Pacification Commissioner and Area Commander and its branches was established. In the Yuan Annals under “Notes on Yuan Shundi”, it is recorded that in the eighth month of the Twelfth Year of Zhide (1352), the rebel Fang Kuochen attacked Taizhou, and was repulsed by the combined forces of the Area Commands of Zhide and Fujian.

Zhizhen (1354), the Area Commander of Zhide was captured by Fang. This would indicate that the combined office of Pacification Commissioner and Area Commander was already in existence in 1352. In Section 5 under “Geographical Notes” of the Yuan Annals, specific mention is made of such combined office for the Zhide area and its location at Qingyuan (now Ningpo). This places it much closer to Longquan and Lisui by comparison with other similar offices established at Guangdong and Fujian. We consider it possible that such Longquan wares were specially made for the Zhide office in Ningpo, accordingly it seems likely that the four character abbreviation “Shi si shuai fu” refers to the office at Zhide.

But how did these porcelain wares which were made for the exclusive use of such an office at the end of the Yuan Dynasty come to reach a merchantman plying the overseas trade? Apparently, this happened after the Zhide office of the Pacification Commissioner and Area Commander was abolished (following the capture of its Commander and seizure of Taizhou by the rebel Fang Kuochen), therefore, it seems possible that the porcelain could have reached the ship in question even later than 1354, thus estimates of the date of the shipwreck may be substantially later than the year 1310 when the “Zhi da tong pao” coins were minted.

What then could be the latest possible date of the shipwreck? In our view, we would place this not later than the Twenty-seventh Year of Zhizhen (1367). In the 9th moon of that year, Zhu Yuanzhang (first emperor of the Ming Dynasty) sent an expeditionary force against Fang Kuochen, and within three months seized the cities of Taizhou, Wenzhou and Qingyuan. Fang Kuochen fled to sea but surrendered at the end of the year, and the whole of the East Zhejiang area was then occupied by Ming forces. From the beginning of the Ming Dynasty, Zhu Yuanzhang enforced a strict embargo of maritime trade. In the book “Records of Hong Wu”, volume 70, it is mentioned that in the 12th moon of the Fourth Year of Hong Wu (1370) “Fang Kuochen’s soldiers in Wenzhou, Taizhou and Qingyuan, together with former civilian sea-
farers, 111,730 in all, were drafted to various garrison units, and inhabitants of coastal areas were prohibited from going to sea". Again, in volume 139 dated the Fourteenth Year of Hong Wu (1380), it is recorded that coastal dwellers were prohibited from consorting with foreign nations. However, Japanese pirates continued to harass the coastal areas and extended their activities to the coastal areas from Shandong to Zhejiang and Fujian. Against this background, it is difficult to imagine that there was any activity by trading vessels along the Zhejiang coast. In these circumstances, we consider that if the ship in question had transported the porcelain wares from Qingyuan (now Ningbo), it would have taken place before the end of the Twenty-seventh Year of Zhizhen (1387), in other words, during the period when East Zhejiang was occupied by Fang Kuochen Forces at the end of the Yuan Dynasty.

5. Further Thoughts

Various suggestions have been put forward as to the port of origin and destination of the ship. In the foregoing paragraphs, we have assumed that the ship was loaded at what is today the port of Ningbo, although this is merely hypothesis. It could possibly have sailed from Wenzhou, Quanzhou or some other port, we are not able to say. When the wreck has been raised, it will be possible to examine its form and construction, and this will serve as a basis for further assessment.

And what was the destination of the vessel? On the evidence of the large quantity of Chinese porcelain, it appears that it was a trading vessel sailing from China to Korea and Japan. The pepper it carried on board, a favourite condiment with the Korean people, and the three very fine pieces of Korean greenware discovered in the wreck, all indicate that the ship called at some Korean port, though this was not the final destination. After leaving its Korean port of call, some unexpected catastrophe must have overtaken the vessel.

Among the huge quantity of Chinese porcelain found in the wreck, there are many pieces similar to those discovered in Japan, where a very good market had existed for these wares. For this reason, it is thought that the ship may have been heading for Japan. However, another view is that as some of the porcelain wares in the wreck, such as brown spotted greenwares and yingqing wares which have not hitherto been found in Japan but have been unearthed in large numbers in the Philippines, therefore, it is possible that the ship would have sailed for the Philippines after leaving Japan. In our view, this is indeed a valid assumption.

Some views have been expressed on the effect that the absence of blue-and-white ceramics in the shipwreck could indicate that the production of blue-and-white had not yet commenced at that time. In our view, such an assumption is unsound - the absence of blue-and-white from the wreck is one thing, the debut of blue-and-white is quite another, and the two should not be linked.

The earliest blue-and-white wares recovered under controlled excavation have been of Yuan date, and have been found only in small quantities. This indicates that these wares were in an innovative stage at the time, and unlikely to be available in quantity due to problems relating to materials, skills and technology, and unlike the greenwares of Longquan and yingqing of Jingdezhen which were in common use at that time, these wares were more costly to come by. It would have been logical, therefore, for the ship in question to have been loaded with greenwares, yingqing, and shufu wares at ports along the Chekiang coast.

If no blue-and-white ceramics are found on completion of the salvage work on the wreck, this should come as no surprise, as it would merely reflect the state of the porcelain industry in China about the middle of the 14th century.

By Li Dejin, Jiang Zhongyi and Guan Jiakun in Kaogu Xuebao, 1979, No. 2, pp. 245-253

Translated by Lin Wo Ling
FOOTNOTES


2. It is not clear when this bureau was first established, but it was in existence in the Southern Song in the First Year of Shaoxing (1131), vide the “Song Hui Yao Ji Kao”, sections 15 and 24 in chapter 44 on “Government Officials”. It was abolished after the reign of Qinyuan (1195), vide the “Si Ming Zhi”, chapter 6, and restored at the beginning of the Yuan, vide the “Yuan Annals, Shi Huo Zhi”, chapter 2. Nevertheless, the port of Wenzhou had never been abandoned. The author of “Zhen La Feng Tu Ji”, Zhou Daguan, had actually embarked from Wenzhou in the First Year of Zhen Yuan (1295).


9. As the published photographs do not always show clearly the differences between Shufu wares and yingqing and white wares, we are obliged to lump the yingqing and white wares together in our discussion.


12. “Song Yingqing Head-rest in the Collection of the Chenjiang Museum”, Wen Wu, 1978, No. 11, p. 82, Plate VIII, 1.


18. This suggestion was made by Mikami Tsugio during a discussion held in autumn of 1977, and the same view was expressed in an academic report when he visited China in August 1978.
Fig. 1
Writing with black ink inside a greenware bowl (Shipwreck)

Fig. 2
Longquan greenware cup-stand (Shipwreck)

Fig. 3
Writing with black ink inside a white glazed bowl (Shipwreck)

Fig. 4
Bowls with "Shufu" glaze
1. from the shipwreck
2. unearthed from Yuan Dadu
1. Longquan greenware dish (Yuan Dadu)

2. Longquan greenware dish (Shipwreck)

3. Longquan greenware bowl (Shipwreck)

4. Longquan greenware bowl (Yuan Dadu)
PLATE II

1. Longquan greenware ribbed washer (Shipwreck)
2. Longquan greenware ribbed washer (Yuan Dadu)
3. Longquan greenware bowl (Shipwreck)
4. Longquan greenware bowl (Yuan Dadu)

5. Longquan greenware twin fish handle vase (Shipwreck)
6. Longquan greenware Bodhisattva (Shipwreck)
PLATE III

1. Longquan greenware dish (Shipwreck)

2. Longquan greenware dish (Shanghai Museum)

3. Longquan greenware stem-cup (Shipwreck)

4. Longquan greenware stem-cup (Yuan Dadu)

5. Yingqing stem-cup (Shipwreck)

6. Yingqing stem-cup (Yuan Dadu)
1. Longquan greenware alms-bowl (Beijing Yuan Tomb dated 1314)

2. Longquan greenware alms-bowl (Shipwreck)

3. Longquan greenware "li" shaped incense burner (Shipwreck)

4. Longquan greenware washer (Shipwreck)
1. Longquan greenware dish (Yuan Dadu)

2. Longquan greenware dish (Shipwreck)

3. Longquan greenware dish (Shipwreck)

4. Longquan greenware dish (Yuan Dadu)
1. Longquan greenware large vase (Hoard in Inner Mongolia)

2. Longquan greenware large vase (Shipwreck)

3. Longquan greenware jar (Yuan Dadu)

4. Longquan greenware jar (Shipwreck)

5. Writing with ink at the foot-rim of a Longquan greenware jar
1. Longquan greenware "lien" shaped censor (Shipwreck)
2. Longquan greenware "lien" shaped censor (Shipwreck)
3. Longquan greenware "lien" shaped censor (Yuan tomb in Xuanzhou, Fujian)

4. Longquan greenware yu-hu-chun vase (Shipwreck)
5. Longquan greenware yu-hu-chun vase (Yuan tomb in Beijing)
1. Yingqing brown spot ewer (Shipwreck)

2. Yingqing brown spot ewer (Yuan Dadu)

3. Yingqing brown spot dropper (Shipwreck)

4. Yingqing "Shufu" bowl (Yuan Dadu)

5. Yingqing "Shufu" bowl (Shipwreck)
1. Yingqing silver mounted dish (Shipwreck)

2. White glazed silver mounted dish (Shipwreck)

3. White glazed silver mounted bowl (Shipwreck)

4. Writing with ink at the base of the same bowl
PLATE X

1. Yingqing vase (From the foundations of a Yuan pagoda in Beijing)
2. Yingqing vase (Shipwreck)
3. Yingqing twin-lug vase with applique (Yuan Dadu)
4. Yingqing mei-ping (Shipwreck)
5. Yingqing twin-lug vase (Shipwreck)
1. Yingqing phoenix-shaped dropper (Shipwreck)

2. Yingqing incense burner (Shipwreck)

3. Yingqing incense burner (Yuan Dadu)

4. Longquan greenware twin-ear jar (Shipwreck)

5. Yingqing jar (Shipwreck)

6. Yingqing jar (Yuan Dadu)
PLATE XII

1. Yingqing porcelain head-rest (Chenjiang Museum)

2. Yingqing figure porcelain head-rest (Shipwreck)

3. Yingqing figure porcelain head-rest (Metropolitan Museum of Art, New York)

4. Long necked dan ping (Shipwreck)
1. White glazed jar with brown decoration (Shipwreck)
2. White glazed jar with black decoration (Shipwreck)
3. Jar lid (Yuan Dadu)
4. White glazed jar with black decoration (Yuan Dadu)
5. Jun vase (Shipwreck)
1. Black glazed jar (Shipwreck)
2. Black glazed jar (Yuan Dadu)
3. Black glazed bowl (Shipwreck)
4. Black glazed jar with twin handles (Yuan Dadu)
5. Black glazed jar with twin handles (Shipwreck)