

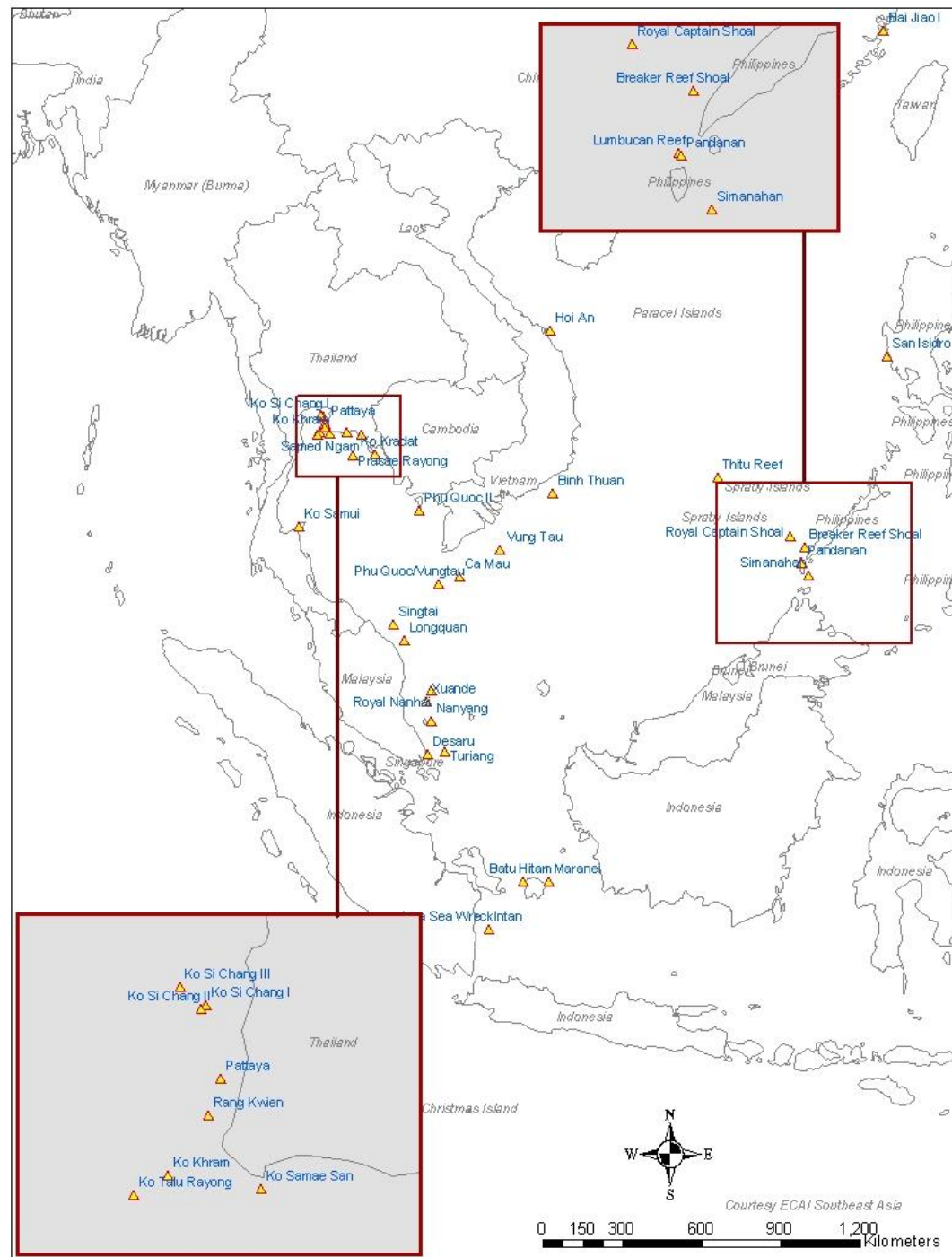
Shipwreck Ceramics and the Fall of Melaka

Roxanna M. Brown, Director
Southeast Asian Ceramics Museum
talk for
Southeast Asian Ceramic Society, West
Malaysia branch, Kuala Lumpur

20 July 2007

Since
1974:

150+
wreck
sites in
S. E.
Asia



New evidence from shipwrecks on

1. Who/what paid for Borobudur (early 9th century)?
2. Why the *deva-raja* cult, Cambodia? (early 9th century)?
3. Ming gap & the Golden Age for S. E. Asian ceramics.
4. Zheng He ceramics.
5. The conch motif and the fall of Melaka

Shipwrecks with Ceramics 9th – early 14th Centuries

Belitung AD 826+	Intan c. 918-960, Cirebon c. 950-1000	Pulau Buaya c. 1000-1050	Tanjung Simpang , c. 1050-1100	Jepara 1130 +	Allaipiddy c.1150-1200, Karang China c. 1100-1300	Breaker Reef, Java Sea, Huaguangjiao I: all c. 1200-1299; Quanzhou c. 1277	Sinan c. 1325 Datu Island c.1300-1325
98% Changsha ceramics	Mostly Guangdong	Mixed Guangdong, Fujian	Mixed Guangdong, Fujian	Minnan (Fujian), Longquan	Most Fujian, some Guangdong, Jingdezhen	Most Fujian, some Guangdong, some Jingdezhen	Longquan, Jingdezhen
West Indian Ocean <i>dhow</i>	Intan: lashed lug	no data	single piece softwood at location	No data	No data	Java Sea probably lashed lug	

B. Groslier

877-889
Roluos earliest
Kh glaze:
roof tiles,
conical bowls,
boxes, covered urn

boxes; no bowls at Angkor,
; cup-mouth bottles; major Ch import from c. 950

No new Ch infl; begin brown Kh; animal shapes, lenticular, baluster jars

c. 1050 begin Anlong Thom kilns;
1075-1125 Sras Srang burials (also end 12th)

Brown: proposed time span Buriram kilns c. 1050-1125

1. Ships circa A.D. 800 – 1367
2. Ships circa A.D. 1368-1573
3. Ships post-1573

Belitung wreck (c. 826)



Cirebon (c. 960) shipwreck





- 1 Plan of Borobudur (above)
- 2 Niches containing Buddhas on the middle levels of Borobudur (left)
- 3 Stupas containing Buddhas on the upper levels of Borobudur (below)



AD 800-850:

Bulk China
trade

Borobudur

Deva-rajah cult

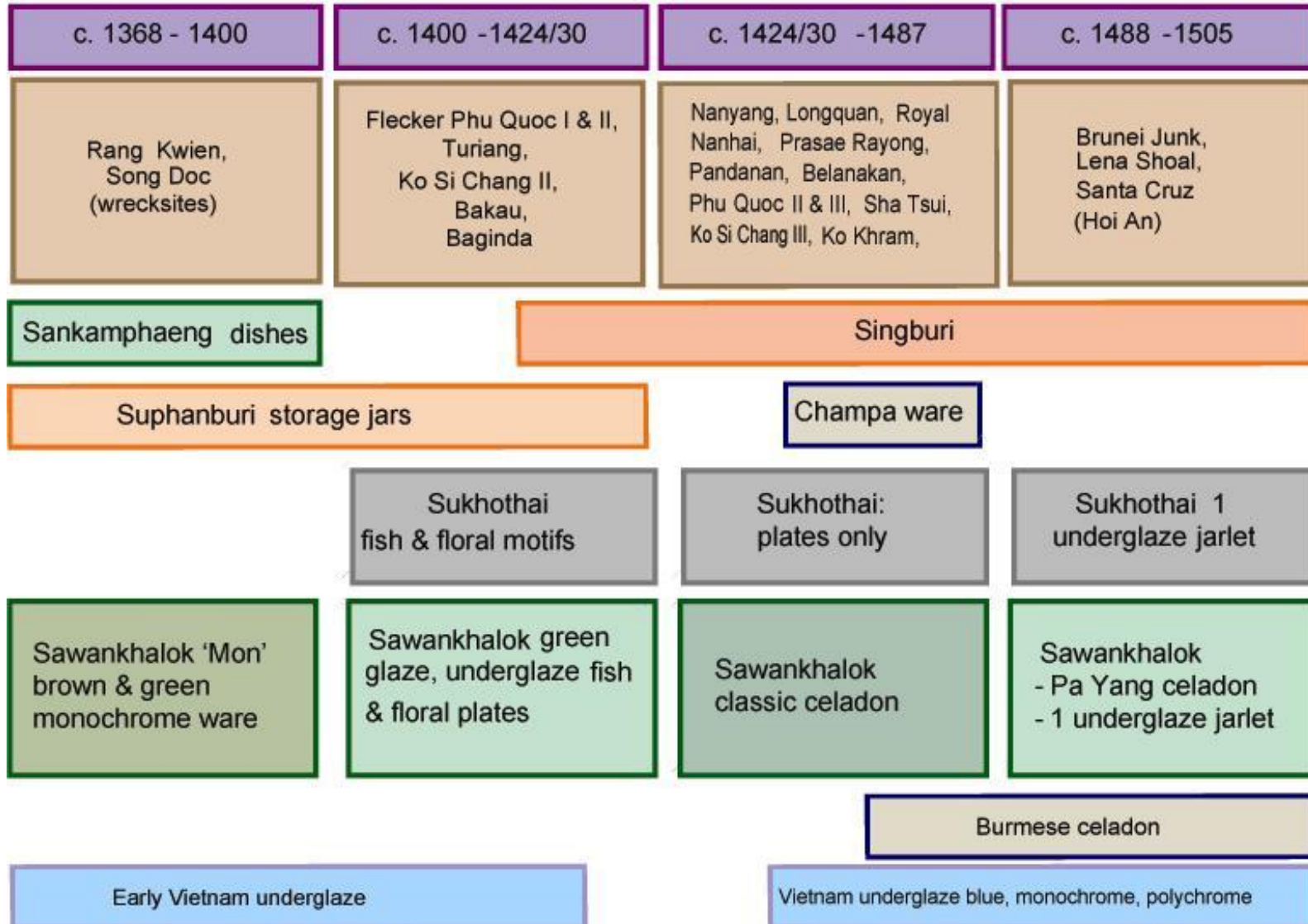
Jayavarman II 802-850

Khmer *deva-raja* cult: “so that the country of the Kambujas would no longer be dependent on Java....”



Southeast Asian Trade Wares 15th Century

©Roxanna M. Brown March 2006



About 50% Chinese
Celadon & other monochrome ware

1 - 5% Chinese

About 75%
Chinese

'Ming gap'

- Term 'Ming gap' from Tom Harrisson -- referred to the absence of Ming blue & white at the Sarawak river excavations (NOT to an absence of blue & white across the region). The missing Sarawak blue & white was instead discovered in excavations at Brunei.

New definition:

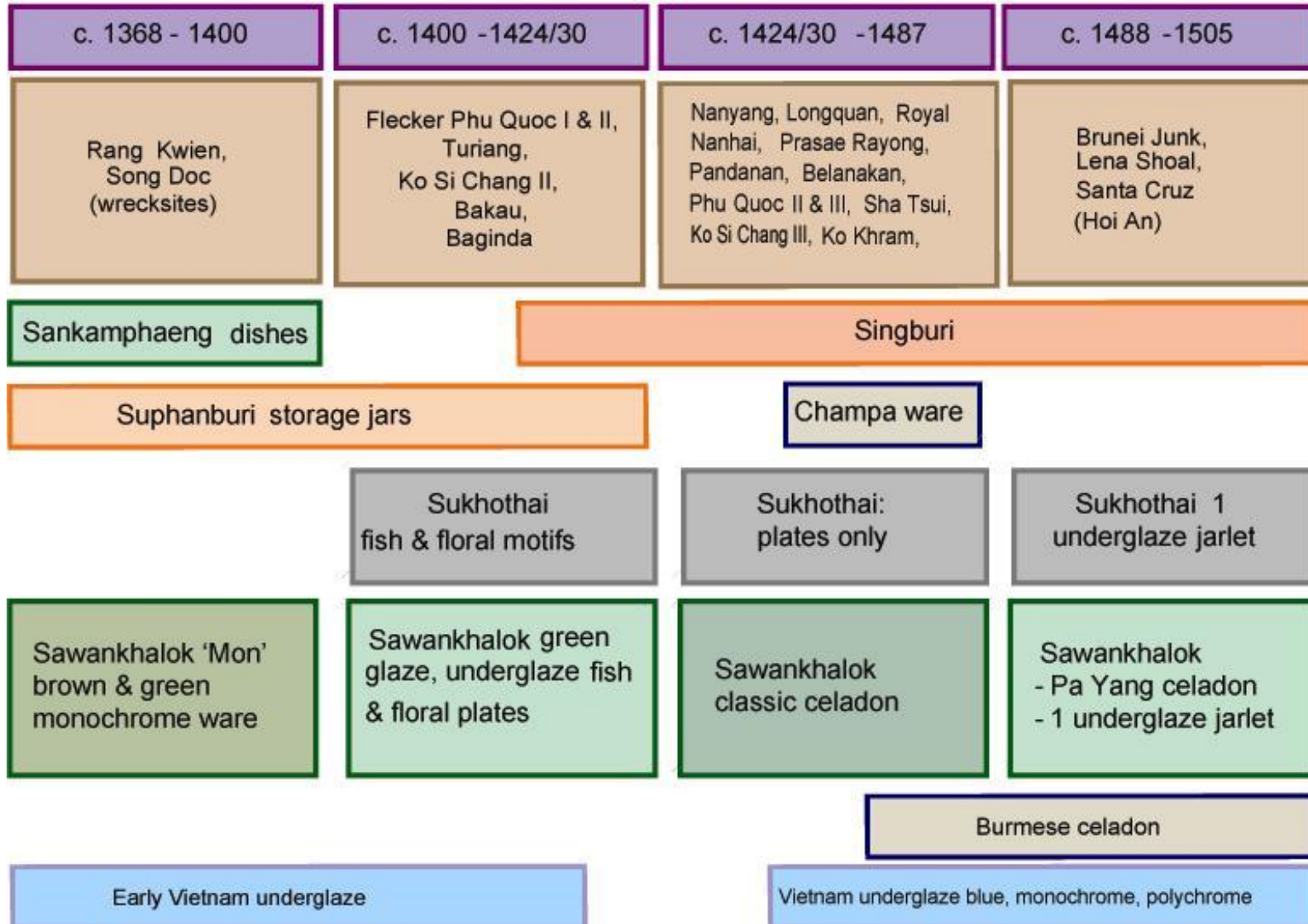
1. Severe shortage of blue & white to S. E. Asia circa 1352 – 1470
2. Drop in overall Chinese ceramics export (from previous 100%) to about 50% *circa* 1368-1424
3. Drop in overall Chinese ceramics export to less than 1% circa 1425-1487

-- Ming gap ends with Hongzhi
(1488-1505) reign --

Zhenghe ..

Southeast Asian Trade Wares 15th Century

©Roxanna M. Brown March 2006



About 50% Chinese
Celadon & other monochrome ware

1 - 5% Chinese

About 75%
Chinese

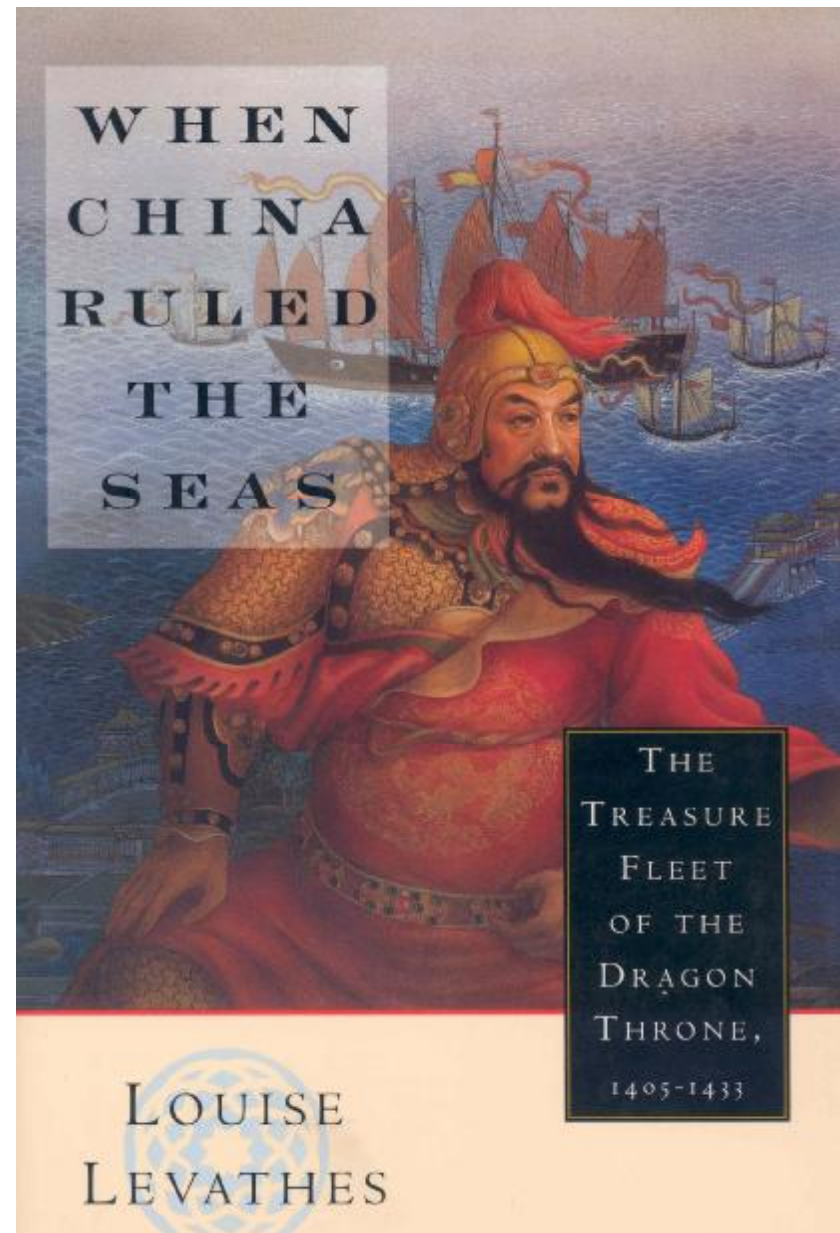
Zheng He-like voyages from 1369, e.g. 180 ships built 1384, 300 in 1387

1383 (9 Sept) 'envoys sent to confer cloth and 19,000 pieces porcelain on Champa, Siam, Cambodia'

Zheng He one of 13 named admirals in Yongle reign

Missions end 1424; except one more in 1432; ships dismantled Nov 1435

*Geoffrey Wade translations of Chinese chronicles



Blue & white?! Archaeology shows...

Early Ming celadon, Song Doc shipwreck 1380-1400



‘Zhenghe’ ceramics

Turiang-type cargoes (c. 1400-1424)



‘Zhenghe’ ceramics

Early Thai green glaze – Sawankhalok Turiang-type cargoes c. 1400-1424



Classic Thai celadon 1425-1487



Royal Nanhai (c. 1460)



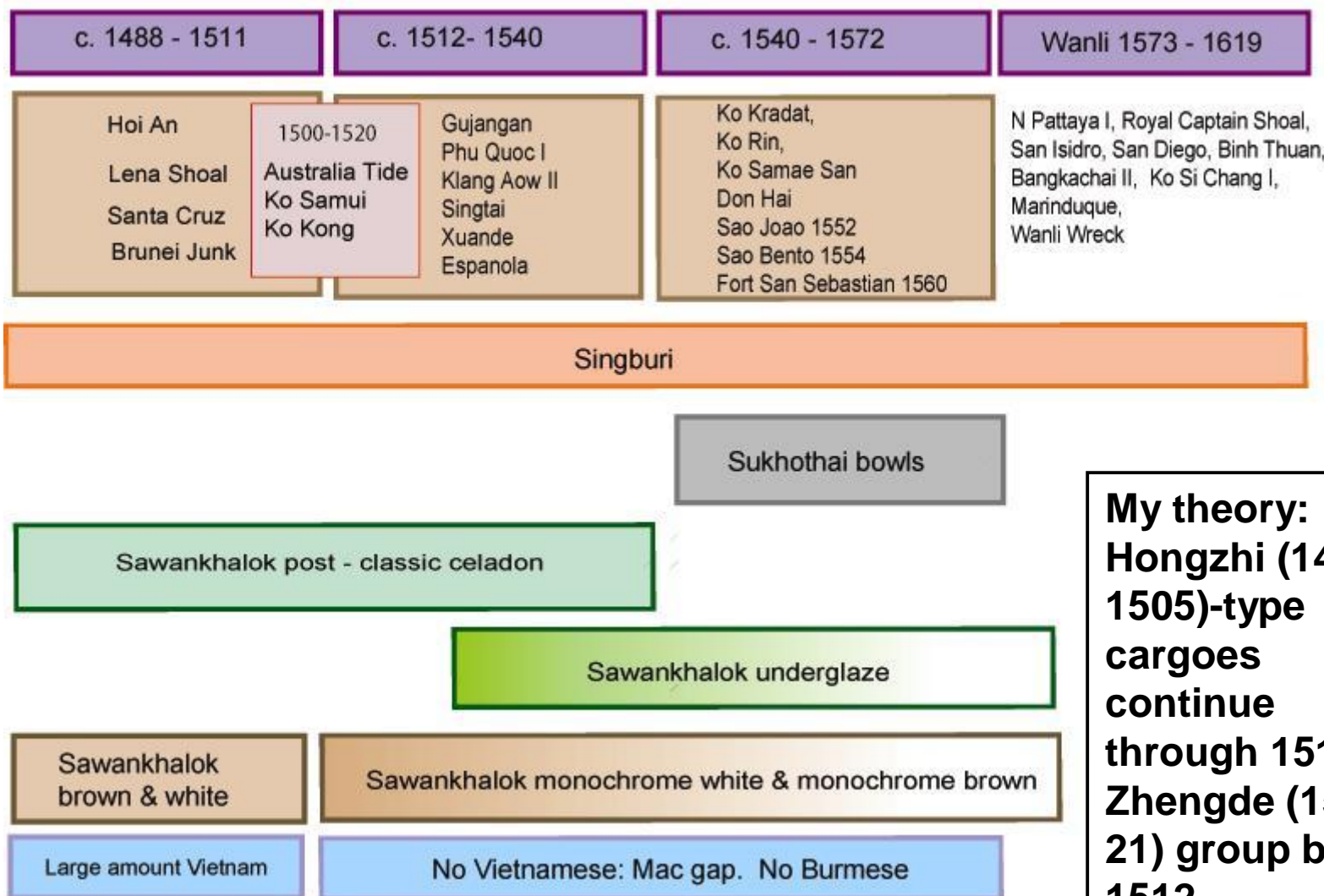
1% and less Chinese,
e.g.:

Royal Nanhai (c. 1460):
21,000 pieces Thai classic celadon
6 Chinese blue & white, 1 celadon
2 Vietnamese blue & white



Southeast Asian Trade Wares 16th Century

© Roxanna M. Brown March 2007



My theory:
Hongzhi (1488-1505)-type cargoes continue through 1511, Zhengde (1506-21) group begins 1512

**My theory:
Hongzhi (1488-1505)-type cargoes remain unchanged
through 1511**

2 groups of shipwrecks definitely follow one after the other, and Chinese agree 1st group is Hongzhi. 2nd must be Zhengde (1506-21)?

What could cause the drastic differences between the 2 groups?

Lesser quality Chinese ware, overall smaller cargoes & smaller ships

Hongzhi blue & white



Zhengde blue & white



Key event:

Counter-attack January 1512

- Empoli: 35 500-tonne junks, 70 slightly smaller, then many very small
- Pires: Meantime Java gathered all its forces and came against Malacca with a hundred sail, ...some 40 junks and 60 lancharas and a hundred *calaluzes*... Our ships went out to meet them, at which the Javanese withdrew with the tide, leaving everything and taking to the *calaluzes*. **All the rest were burnt, ..**

Increased shipping reported in China for Hongzhi (1488-1505) reign

6 April 1493

- The Censor-in-Chief Min Gui, supreme commander of Guangdong/Guang-xi, memorialized: "In the coastal areas of Guangdong, many people are privately dealing with [those who come on the] *fan* ships. The **ships come in an unbroken stream** and ...[those on] the *fan* ships start selling their merchandise....

According to Gui's memorial, the problem lies with the great number of *fan* ships According to this Ministry, since the first year of the Hong-zhi reign (1488/89) the only *fan* ships which have brought tribute missions through Guangdong have been one from Champa and one from Siam.

Zhengde-type porcelain



No substantial change in China until Wu Ting-ju sacked 1521-22

13 January 1521 [Because of regulations] The *yi* persons could thus not make much profit and the number who came was limited. Recently, the administration commissioner Wu Ting-ju put forward a proposal based on his claim that [the province] lacked aromatics to send to the Court and lacked provisions for the armed forces. Thus, frequency restrictions were ignored and the goods of any ship which arrived were taxed. This has resulted in *fan* ships continually coming to our coastal bays.... Ting-ju's proposals have led to these troubles. The Ministry of Revenue should be instructed to examine the precedents and remove him."

Geoff Wade, translator, *Southeast Asia in the Ming Shi-lu: an open access resource*, Singapore: Asia Research Institute and the Singapore E-Press, National University of Singapore, <http://epress.nus.edu.sg/msl/entry/1389>, accessed January 09, 2007.

Drop in trade

Pires (1512-1515, p.195) .. And through the destruction of Malacca they [Grisee merchants] do not navigate...nor have they any junks, because most of the Javanese junks come from Pegu, where the Javanese – and other people who bought in Malacca – used to send for them to be made; ... it is already five years since this stopped, and the Governor of India burned and defeated all the enemy junks, they were all left without any, and they have no junks.”

(p 217) “This king [Tidore] is very desirous of trading with us, because the Moluccas Islands are going to ruin, and for the last three years they have only gathered a few cloves, because of the drop in navigation since the capture of Malacca.

Hongzhi cargoes 

Hongzhi (1488-1506)-type cargoes:

1. **First** bulk Ming blue & white export
2. Greatest variety types of ware, i.e.:
 - a. Chinese (1) blue & white (2) celadon, other monochrome ware, (3) 1st polychrome Chinese from ships
 - b. Burmese celadon (& Burmese lead-glazed..?)
 - c. Vietnamese blue & white, and monochrome (& polychrome?)
 - d. Rare heirloom Champa ware
 - e. Sawankhalok post-classic celadon (1 single underglaze jarlet known)
 - f. Sukhothai underglaze, 1 single jarlet known



wrecksites →

Lena Shoal, Philippines

Hongzhi-type cargo



- Discovered 1996
- Excavated 1998
- About 4,000 ceramics

Santa Cruz, Philippines

Hongzhi-type cargo



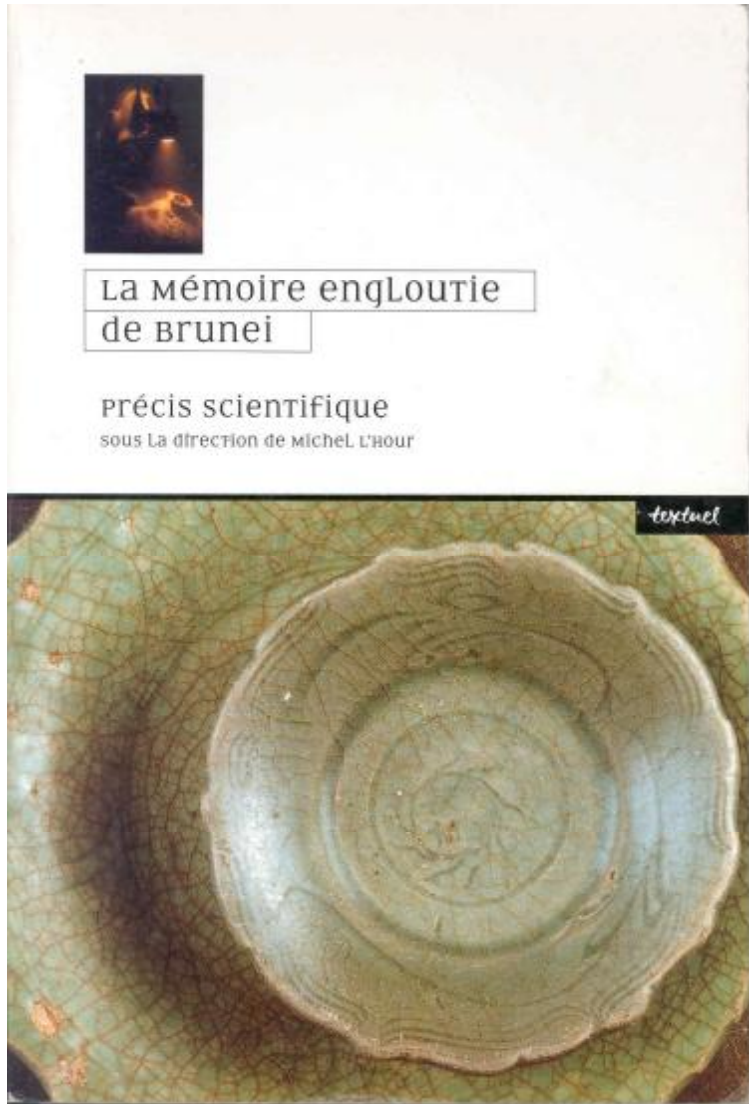
Excavated June-
September 2001
-15,000 objects
(11,500 ceramics,
about 8,000 intact)



-no official report yet



Brunei Junk, Brunei Hongzhi-type cargo



Reported 1997,
excavated 1998

About 12,250
ceramics

Book 2001

Hoi An, Vietnam

Hongzhi-type ??

Butterfield's
auction Oct
2000



Gujangan (Jolo) shipwreck, Philippines, Zhenade-type cargo



Discovered by
fishermen 1997

Reported 1998

Excavated 1999

NO official report yet

Larry Gotuaco, *Arts of Asia*, Nov-Dec 2002

Xuande shipwreck (c. 1530-40), Malaysia, Zhengde-type cargo

Excavated
1996

Oriental Art
Summer
1997

300-400
ceramics

The 'Xuande' Wreck Ceramics

Seen Szeinard

(A supplement to the preceding article by Rosanna Brown)

The Mystery of a Cargo Without a Ship

In April 1996 pieces of a cargo from an early Ming dynasty vessel were discovered off the east coast of peninsular Malaysia. Although the site was a source of some controversy, the remains were located in 52 metres of water, 60 nautical miles from shore. The cargo had been secured by a person from a local fishermen who had accidentally snagged some ceramic ceramics in his trawler's net. Despite the fact that the cargo was in a remote area, the pieces were not lost over a period of six days when the trawler had covered a relatively confined area of twenty square miles. While this meant that a large-scale survey was not necessary, the find was sufficiently interesting to warrant a large-scale survey.

To conduct this survey, the author and his crew aboard the *Calvin* decided to temporarily interrupt the excavation of another wreck, named the *Royal Maria* (previously dated to the 19th century), an excavation approved by the federal government of Malaysia.

The search area for the newly reported site was subject to two natural ocean currents several days which deep diving is impossible. This diving can take place for a month, twice yearly. To make use of the diving time, it was decided to search for the possible new wreck using large-range, high-frequency side-scan, sonar, acoustically scanning the seabed in one hundred metre swath in ten survey times. When it became possible, 'trawls' were usually deployed by an ROV (remote operated vehicle) or a manually operated by divers. One of the ROV however saved over two man-hours and consequently gave the searchers more time to investigate the 'island' targets.

After many herring miles of survey and repeated visual inspections by ROV, one elongated, oval scar on the seabed, measuring 18 x 7 metres, clearly indicated a wreck site. The author lost the sonar trace to the bottom and sighted the remains of a large cargo from centuries earlier. The cargo, though about the size, however, was the low density of ceramic artefacts. The suggested mound of broken ceramic wares, so clearly suggested by the side-scan sonar, was instead only a thin layer of scattered 'overboarded' (the command of *overboard* and *overboard* breaks Chinese blue-and-white trade wares, later suspected to be historically significant). For some or other, they displayed the coveted reign mark of the Ming emperor Xuande (1425-1435).

Two small, heavily loaded cannons were also found lying on the seabed of the precisely marked ship-shaped scar on the bottom. No vessel of any kind or quantity was discovered, then or later.

Subsequent investigation revealed that Chinese blue-and-

white ceramic wares covered the recorded scar, plus the area immediately to its west. Several hundred and several hundred black wares from Thailand lay scattered outside the emperor's site. All these ceramics, outside the ship's outline, were partly or totally buried in a massive deposit of 30 centimetres of silt and the material within the perimeter was only half buried.

Despite thorough probing within the confines of the site, penetrating 1.3 metres into the seabed, no wood or other parts of a vessel or its cargo could be located. This might suggest that the ship had accidentally broken and spilled its deck cargo overboard. But a deck cargo, falling in any manner from the surface, would be expected to spread over a much larger area. To be sailing with the correct winds, the ship must have sailed from the straits between December and March, when there would also have been the same strong under-water currents that prevent diving.

If indeed a ship only partly loaded with pottery had sunk and then later completely moved away, one would expect to find half-buried loads (for the vessel's cargo) or the place of heavy cargo. Yet no half-buried loads have been located. The only remaining explanation is that the ship, still fully loaded and heavy, sank into the seabed leaving behind the deck cargo in the surface. The last (perhaps optimistic) possibility would appear the most feasible - except for the cannons that lay on the sea floor. Why did they, with their higher density, not sink?

Metal detectors deployed to scan the sea and its immediate offshore did not detect any metallic objects other than some copper brackles. Subsequent surveys with a proton magnetometer did not confirm the presence of any ferrous materials which, other, but not always, are present in formal iron and steel cannonballs. Yet another survey with a sub-bottom profiler, penetrating 60 metres into the seabed, failed to locate a wreck or a further stash of cargo. The upmost four metres into the seabed proved to be so soft that the instrument could not detect any details. It is possible that bits of the wreck itself did penetrate the upper soft layer of the seabed and remain below an easily probed depth of 1.5 metres, perhaps lying atop a barrier strata found at a depth of 4 metres below the present level. Why this latter instrument did not detect a submerged wreck or debris cargo remains a mystery.

Another indicator that an actual physical vessel, at least for some time, sat at this point on the seabed is the once deep 'scar' (the present extent of the seabed side). This type of erosion is most common in estuaries where a strong ocean current is deflected by an obstruction. Along the path of its changed direction, the erosion accelerates, and consequently creates a trench directly beside the obstacle. This type of erosion, next to the ship's side, but terminated at most 100 metres west in the area. Later, when the vessel had moved away, the deck cargo would collapse into the trench. There, it would be found today. Meanwhile, the previously present



Fig. 1. A small number of ceramic vessels were found during the survey. The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10).



Fig. 2. A small number of ceramic vessels were found during the survey. The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10).



Fig. 3. A small number of ceramic vessels were found during the survey. The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10).

Fig. 4. A small number of ceramic vessels were found during the survey. The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10). The vessels were found in a group of 15-20 (see also page 10).

Phu Quoc I, Vietnam, Zhengde-type

Found early 1970s

About 100
fragments
collected

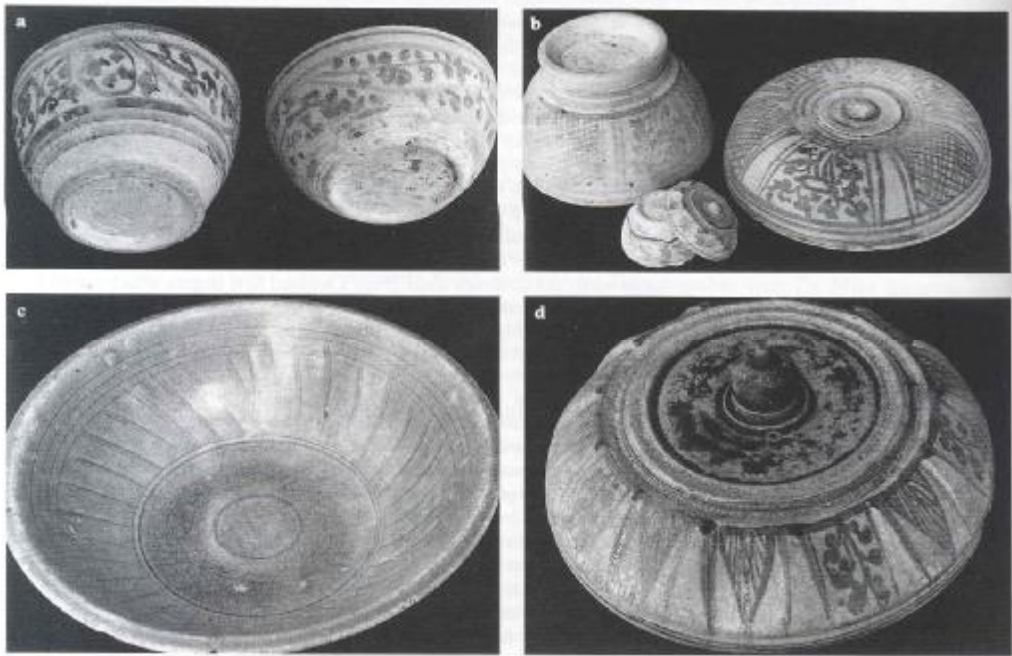


Fig. 6 a, b, c, d Sawankhalok wares recovered from the Phu Quoc shipwreck in association with blue-and-white bowls. See fn. 17.

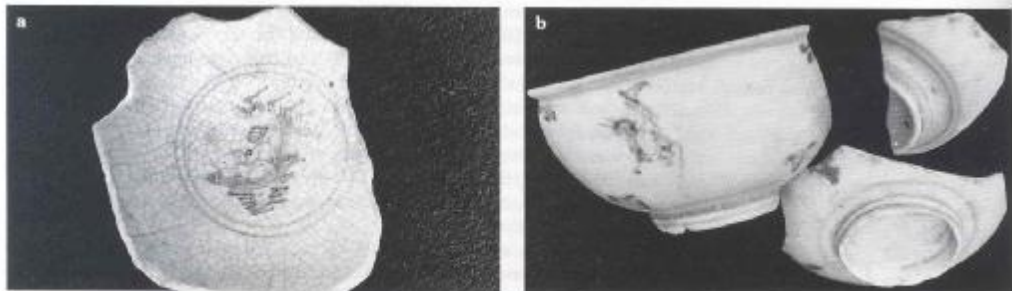


Fig. 7 a, b Interior and exterior views of fragments from the Phu Quoc shipwreck, all from a single type of Chinese blue-and-white bowl. C. 1500. See fn. 17.

Brown, *The Ceramics of Southeast Asia*, 2nd edition, 1988

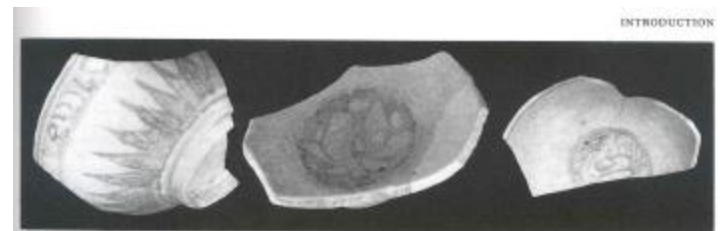


Fig. 8 Two alternate well testifies-ornith and lotus-plant exterior fragments of a type of Chinese blue-and-white bowl recovered with Sawankhalok wares from the Phu Quoc shipwreck. C. 1500. See fn. 17.

better chronology for the trade wares of Sawankhalok/Sukhothai than 'late thirteenth or fourteenth century' for the Sawankhalok Mon and Mon-associated wares, and 'fourteenth to mid-sixteenth centuries' for the remainder. The kiln sites themselves have so far been found to be too disturbed to help in this respect. Although the kiln structures might one day all be dated, it is difficult to know which wares were fired in which kilns, and neither C-14 dating of associated charcoal, nor TL dating of the wares themselves, can give a more precise dating than plus or minus 100-200 years. This inability to establish a chronology for the fifteenth and sixteenth centuries has been the one frustrating aspect of the Sawankhalok kiln excavations. This same problem applies to Vietnamese and Chinese trade wares of the same period. Eventually, all three chronologies will probably be solved together. What is still sorely missing in the study of South-East Asian ceramics is a large site containing trade wares which could, beyond doubt, be dated to either the fifteenth century or to the sixteenth century. When that find comes, if ever, it will be a major event.

Klang Aow II, Gulf of Thailand, Zhengde-type

50-100 fragments, early 2004;
Ref. *Newsletter* October 2004



Chinese blue & white, Thai
Sawankhalok underglaze

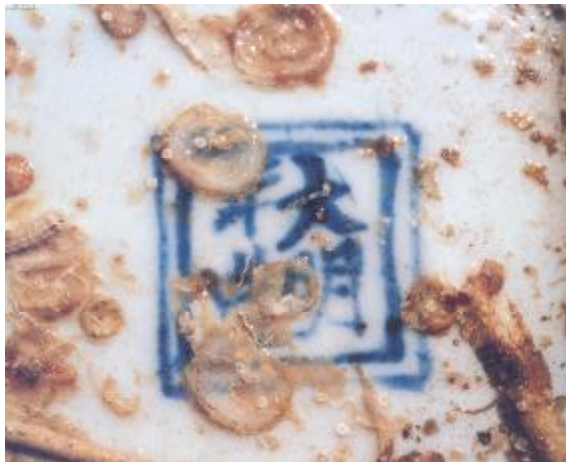


Australia Tide/Klang Aow I, Gulf of Thailand,
Zhengde-type
except NO Swk underglaze, NO Sukh



Hongzhi group (1488-1511) base marks rare

2 on Brunei Junk



Zhengde group (1512-40) base marks more common; but for **earlier** reigns (e.g. Xuande)



Fig. B. Three monochrome 18.5 cm wide, 4 cm high and twice-encircled Chinese mark on their slightly convex base. Made in the great Ming dyn. The bodies are fine-grained, fired. The glaze is opaque an surface except on the base wh Two of the dishes, both into exactly similar underglaze bl. third, slightly chipped dish sl drawn reign mark in blackish

was
car's
this
from
area
the
free

ally
are
why
has
and



A blue and white ceramic pitcher with a floral pattern. The pitcher has a long, curved handle and a spout. The body is decorated with a dense pattern of blue flowers and leaves on a white background. The neck is also decorated with a similar pattern. The base is slightly flared.



10. *Hesperis* Xantho, *tyros* mlt.

Other Ceramics



Fig. 1. Ewer, usually paired and 25 cm high, with slightly flared sides and a flat sprayed forming, decorated in underglaze blue. Each side is painted with a lotus spray, one of them with an aperturization and the other more closed. Each spray is enclosed in a perspective striped medallion. The thick glaze has a greenish to bluish tint and satin finish. The ewer is very similar to No. 29,435 in the Ardabil Shrine collection which carries a mark similar to the ewer in Fig. D. (Papa, Chinese Pottery from the Ardabil Shrine, p. 90).



displays an unusual girdle-shaped bulge. The shards show that these vessels were made from mould formed horizontal sections that were then kiln fired one to the other. A similar onion top over in the Ardabil Shrine is illustrated by Pope, *Chinese Porcelain from the Ardabil Shrine*, No. 29, 434, of 58.



Fig. 3. Two bowls, 11 cm wide and 6 cm high, decorated in underglaze blue with a gilt in the centre medallion. The covers are plain except for a scalloped border (similar to A) of the inverted moulden. The exterior is plain, with opaque white glaze. With a finely carved footring, encircled in double rings at the base, is a four-character seal: 'Xuan' (year). The marks reads 'Made in the Xuanhe year'.



fig. 6. A limited number of residual closed dishes lying between 17–18 cm in diameter, with a height of 1.5–3 cm, all depressed in underplate. The forced rough rim has a triple border or rim. At the center may be a single line stop impression. On the exterior is a flared spool featuring a sharp rim. The exterior is a fine white clay sensitive "spoil" flower. With a fine white clay and the marks are finely laid enough to be secret. The glaze has a chattering over fire and cold break.



Fig. 7. A limited quantity of dishes with straight mouth rim varying between 14–18 cm in diameter and approximately 3 cm high. These contain roughly the same variety of designs as in Fig. 6, although depicting a garden landscape with an ornamental rock and papyrus in its own rendition.

• The largest quantity of dishes are those with a slightly curved, rounded upper margin, namely 14 cm wide and 3.5 cm high, decreasing in varying degrees the quantities of underglaze blue with an engraved design in the dense medium, then round the rim, and then with varying floor decoration to the exterior rim. The design includes a landscape with (ornamental) rock, a fence and water-lily, crapheuses in landscape, round the rim, and a vegetal strip interpreted with low bud-like arborescences (flax, cork, cedar, red oak and a red ribbon). Made with the white body, these pieces display a better preserved glaze than usually seen among the other types of wares. It is slightly bluish and tends to acquire a high gloss. The design in the dense medium tend to be similar to Fig. 3. (see Appendix)

Fig. 3. A group of small daisies, 12 cm wide and 2.5 cm high, decorated in a pale blue with generally widely elongated, thin, slightly wavy, light white to gray radial coloured. The feelings are very soft and rounded. The shape of the corolla is long and with leaves in a wide area (for the corolla modification design). This design features two Chinese flowers in varying poses, one is still showing the side of the flower, the other is facing the ground. So sometimes the flowers appear to be a 100%, or a semi to a third stage. The exterior walls show vertical sprays. While the colour in this example is a deep blue, in most the blue is pale and white.



Fig 5. The pendant (diam. 10 cm wide and 21 cm high) features a rounded base that has an open bottom. As a 'hole-bottom' (the bottom hole on this group is only 2.4 cm in diameter), the clay body is fine and white. The slip is white-glazed and the others are decorated in varying shades of deep pale blue with leaf motifs, a bird on a branch, or a stylized design collected to represent a Chinese sage. There are subtle leaves round the exterior. Bits of gold are also seen at the lower exterior wall.

Other wire rings, for two or three, thirty pointed and also glazed, with straight mouth rim, each 5 cm. wide and 4 cm. high. An unglazed ring on the interior bottom allowed the snout to be washed for ichth. living. One of these shows scars from the bottom of the dish now stuck on it (two illustrations).

Hongzhi group: Burma
celadon, Vietnamese



Zhengde
group:

NO
Burmese

NO
Vietnamese

Hongzhi group: Swk post-classic celadon



Zhengde group: Swk post-classic celadon (mainly large bowls) + opaque white + underglaze black



Hongzhi group:
Chinese celadon
about 25% of total
Chinese ceramics



Zhengde group:
**NO Chinese
celadon**



Hongzhi group
(1488-1511):
hole-bottom,
wide dishes

Lena Shoal

Zhengde group
(1512-40): hole-
bottom saucers

Xuande wreck



REVIEW

Hongzhi-type cargo, c.1488-1511

- Sawankhlok post-classic celadon
- Sukhothai very rare
- Chinese celadon
- Burmese celadon
- Vietnamese

Zhengde-type cargo, c.1512-1540

- Sawankhalok post-classic celadon + monochrome white + underglaze black
- Fair quantity Sukhothai bowls (cakra, picul)
- NO (rare?) Chinese celadon
- NO Burmese, NO Vietnamese

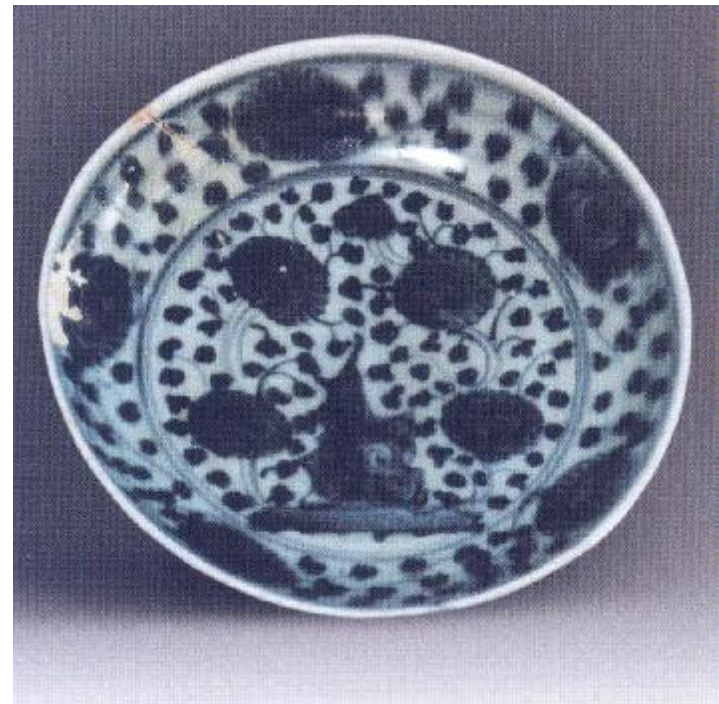
Next: style changes in Chinese blue & white ware

Rock & peonies

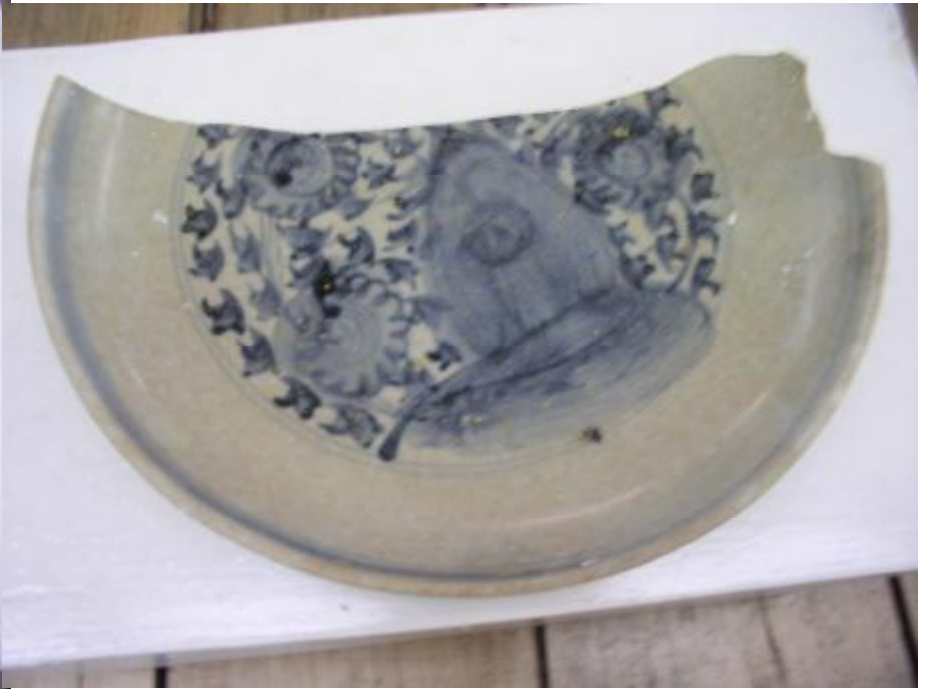
Hongzhi group rare



Lena Shoal



Rock & peonies: Zhengde group common



Conch motif: Hongzhi group, with *ershu*;
Zhengde group plain



Hongzhi blue & white earliest:

Rock & peonies, rare



Lena

Santa Cruz



Zhengde-type (Xuande wreck)



Makara

Hongzhi-type



Zhengde-
type
(Xuande
wreck)



Zhengde group ONLY:
Ribs on exterior dishes
(Xuande wreck)



Zhengde-group ONLY: 4-horsemen, lotus-shape bowls

Gujangan wreck



Trade ceramics offer new evidence:

1. S. E. Asia AD 800-850: bulk trade, Borobudur, Angkor *deva-raja* cult.
2. Ming ban/Ming gap
3. Zhenghe *celadon*
4. Shipwreck ceramics & the Fall of Melaka
 - a. Fewer & lesser quality Chinese ware after 1512
 - b. Vietnamese & Burmese drop out, Thailand increases export amount and variety
 - c. The 2 types of cargo very easy to identify by knowing only a few basic Chinese blue and white designs