Surprising new analysis argues

**Sukhothai ware probably fired in up-draft kilns**

THE RECENTLY examined PhD thesis of Australian Gary Hill of La Trobe University (Bendigo) argues that Sukhothai glazed ware was fired primarily in updraft kilns. See drawing ‘A’, right. [Hill will notify us when the work is officially available.]

First, he argues, the maximum height of the usual 5-dish stack of Sukhothai plates, including tubular support, is 83.5 cms, but the ceiling height of a Sukhothai crossdraft kiln is about 2 m. This would seriously waste heat flow, as shown in ‘B’. For effective heat use, Hill says the flow was probably blocked by unglazed jars and/or architectural pieces (other major products of the site), as in ‘C’ where dish shapes are set near the fireplace.

Second, there are many more updraft kilns then crossdraft at Sukhothai, and the debris at the updraft kilns was already noted to be almost exclusively underglaze dishes by researchers Supyen Samart and Don Hein in the 1960s. Hill notes that only 13 crossdraft kilns have been identified, while the remaining structures include 6 ‘proto updraft’ and 45 true updraft kilns.

Third, the walls of smaller diameter updraft kilns display sintering that would require about 1240 C. – the estimated temperature for Sukhothai underglaze ware. Larger diameter updraft kilns were probably for earthenware.

Elsewhere in the thesis, Hill uses material analysis to argue that the characteristic white speckles of Sukhothai clay are from specially added quartz. He also gives evidence that the Sukhothai disc-shape supports were made new (some by hand, most in moulds) for each firing and then discarded.

**Letter from the editor**

WITH THIS ISSUE, we begin a fifth year for our newsletter which the volunteers jokingly describe as “tabloid meets archaeological ceramics and nothing is too dirty to print”. The year has started exceptionally well, with the acquisition of more than a thousand mainly Sawankhalok Thai shards donated by Don and Toni Hein in early January. With this, the research value of our museum is doubled. We already had the largest collection of Tak-Omkoi burial site ceramics; now we have the largest research collection of Thai kilnsite shards available for research.

Asked his opinion about Sukhothai updraft kilns, Hein verified that the debris at these kilns is underglaze ware, and also noted that Sukhothai glaze looks oxidized (the atmosphere in updraft kilns) but he thought the updraft idea was so radical that an experimental firing would be necessary to prove high temperatures could be attained. RMB

Past newsletters at http://museum.bu.ac.th
**Letters to the editor**

### Possible Arabic date

In a search for unexpected marks [Burma dish, Nov-Dec 2007 issue], I offer a probable Arabic date on a Zhangzhou bowl (D: 20 cm). Four marks on the cavetto appear to be the Arabic number 2131 CY (read right to left). For AD 2007, the CY is 2558, so it means 2558-2131=427 years. So the dated year should be 2007 minus 427 years, or AD 1580, a year within the Wanli (1573-1619) reign. Zheng Jin Le, Jakarta

### Dragon jar in Burma

This Chinese dragon jar was discovered during digging at Martaban, Burma about 15 years ago in an extensively looted area locally called the old market place. The jar was found under a clump of bamboo and contained rusted remains of iron objects; in fact expansion during rusting may have caused the breakage. As seen in the photo, I was not able to recover all of the pieces. The type is well documented. It is medium height (550 mm), slightly shouldered (400 mm), with a rounded mouthrim (215 mm), conical neck, and narrow base (180 mm). Thin degraded brown glaze covers the body except close to the base (showing the glaze had been applied by pouring while the jar was inverted), and the mouthrim is unglazed. Varying wall thickness and horizontal striations on the body surface show that the jar was finished by scraping on a wheel. The inside is wiped with a thin wash. Six vertical loop lugs (3 extant) with impressed decoration are located at the upper shoulder.

The jar has two 3-clawed dragons in high relief. The dragon form was luted and then the scale and spine details were impressed. Two smaller dragons of the same type in low relief appear above the tail of the larger dragons. Two sprigged flaming pearl motifs are located between the dragons and a 3rd one above one of the dragons. There is also one horizontal plant branch between the dragons.

Don Hein, Australia

### Earliest Vietnam inscription

Nguyen Dinh Chien, Museum of History, Hanoi noted in the original news article on the 1450 inscription [Nov-Dec 07] that it was not the earliest one. In fact, Stevenson & Guy (Vietnamese Ceramics 1997) show two earlier ones. The first (p.178) is probably a 2-character maker’s name. I have translated the 2nd [scan below] which is described only as “inscribed characters giving date equivalent to AD 149” (p.177).

It reads: ‘The 3rd year of Kien Hoa [Jian-hy] reign, intercalary month, 20th day, made by [a member of] the Ly family/ clan’. This becomes Wednesday Feb 15, AD 149. The jar can be seen on request in Musees Royaux d’Art et d’Histoire, Belgium. Nguyen Xuan Hien, Netherlands

### Topkapi Saray palace

I read with interest the article [Nov-Dec 2007] on the inscription from 1450 on the Vietnamese vase, Topkapi Saray Palace Museum. Since records say the palace was not built until later in the 15th century, I wonder if there is any explanation for how the vase reached this collection?

Kathy Harper, USA

**Editor:** Regina Krahl (Chinese Ceramics in the Topkapi, 1986) writes that the palace was founded in 1465-74, and that there are zero records on the formation of the collection. How these pieces reached the Middle East is still a mystery.

**Shipwreck limepot**

In regards to the limepot query [Sept-Oct 07], the 15th C Pandanan wreck found off Palawan Island, Philippines, is another shipwreck from which a limepot was recovered. Allison Diem in her chapter in Pearl Road (1997), the report of the recovery, says the limepot was from the central Vietnam Binh Dinhs kilns. Ms. Diem speculates that the pot was probably used by a crew member as Binh Dinh kilns did not produce limepots for export. The pot is shown on p. 99 in the book [scan below].

David Rehtuss, Washington Oriental Ceramic Group

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### Vietnam and cobalt

A very interesting point on Vietnam blue & white is noted in Li Tana’s paper soon to be published in a 15th C volume.

“Besides providing access to copper, this Yunnan route might have been a lifeline for the production of the famous blue and white ceramic wares, the crowning glory for the production of the famous blue and white ceramic wares. Cobalt ... had been imported from the Middle East.... In 1426 this ingredient was discovered in Yunnan, and from there the Yunnan route might have been the major source for the cobalt-blue used on the Viet blue and white ceramics. Geoff Wade, Asia Research Institute, Singapore
Swatow extended

THE ORIENTAL Ceramic Society of the Philippines’ Zhangzhou Ware Found in the Philippines – ‘Swatow’ Export Ceramics from Fujian 16th – 17th Century has been extended to 5 April 2008. Open 10-6 pm, Mon-Sat (except Easter 20-23 March), at the Yuchengco Museum, Makati. The catalogue [review next issue] was written by Rita Tan.

Major feat in China

THERE WERE doubts, but the feat of lifting an ancient ship intact from the seabed to a museum setting was accomplished during 22-28 Dec 2007. The wreck was discovered in 1987, and it was preserved in hopes for a spectacular excavation that may uncover 60,000-80,000 ceramics. The Newsletter could not find many photos of ceramic finds so far, but here are two. They show mass-produced ware as well as exceptional pieces of stunning quality. Our own guess on age is that it falls between the three sister-cargoes of Breaker Reef, Java Sea Wreck and Huaguangjiao I, which (based on C14 results, Java Sea Wreck) are most likely mid-13th C., and the Sinan (c. 1325) wreck off Korea. For evidence, we note Longquan plates (stacked at rear in lower photo). This shape is not documented in the earlier cargoes.

High prices in London

SOME 20 lots of mostly Thai ceramics were sold at Christie’s South Kensington on 12 December 2007. Four lots and their prices appear below (prices include the buyer’s premium of 17.5%). The ceramics were from the Reidun & Ivar Loose collection with many purchased in Indonesia and Thailand in the 1960s. Some were included in museum exhibitions in Bergen, Norway in 1972 and Gothenberg, Sweden in 1973 and published in the exhibition catalogues. Notes on where and when each piece was acquired, included in the auction catalogue, were no doubt a key factor in the high prices.

Khmer kiln on hold

ALTHOUGH THE Khmer Ceramics Festival conference successfully offered a day-long update on ceramics from many of the most important names behind the research, the experimental kiln [below] was not lighted [Nov-Dec 2007, p. 3]. According to calculations by Serge Rega, who designed it using information from excavations at Phnom Kulen in January 2007, the kiln would require about 10 days firing. The wood would cost about US$1,500 – an amount that was unavailable in time for the gathering. Nonetheless, based on a preliminary short firing to dry the clay body of the newly-built kiln, Serge believes the kiln will fire ceramics successfully.

The firing was planned for the conference ‘Ancient Khmer and Southeast Asian Ceramics: New Archaeological Findings, Production and the Revival of Techniques’ held December 14 at Wat Damnak, Siem Reap. For abstracts, see www.khmerstudies.org. All the participants hoped it would become an annual event.

Sukhothai guidebook

Southeast Asian Ceramics Museum

The museum houses an initial collection of 2,050 ceramics donated by Mr. Surat Osathanugrah. With few exceptions, these ceramics were all found in Thailand. There is pottery from as early as about 3,000 BC and as late as the 19th century.

There are ceramics from production centers in Thailand as well as ceramics that were imported in olden times from neighboring countries.

Khmer ceramics from old kilns presently located within Thailand are represented. There are also Vietnamese ceramics, a great variety of Chinese ceramics, Burmese, Lao and Japanese ceramics.

Display galleries show all the types of ceramics found in Thailand and the technology involved in local Thai production. The museum collections include kiln site wasters and fragments that are essential for teaching ceramics dating and identification.

It is also home to one of the largest collections of ceramics from the 14th-16th centuries Tak-Omkoi sites of western Thailand.

The museum formally opened to the general public on 11 May 2005.

Majapahit history drops a veil

THIS IMPORTANT REVIEW of Majapahit excavation shards – ones previously identified only as “ceramics from the 10th-16th centuries” – leads to significant new findings. Major advances in the dating of trade ceramics over the past decade allow the authors to identify earlier 9th C. shards in the mix as well as a total absence of examples for the Southern Song (1127-1279) period. So, although there was an earlier occupation, the site was not currently occupied when Wijaya decided to found a capital there in 1294. Majapahit’s golden age was reportedly in the reign of Hayam Wuruk (1350-1389) and the large amounts of 14th C ceramics support this claim.

The authors note the presence of some Hongzhi (1488-1505) reign pieces, but the proportion is small compared to large numbers of 14th C pieces. The amount of Hongzhi ware is also surprisingly small compared to large amounts from other S. E. Asian sites. This evidence supports Tome Pires’ (Suma Oriental, 1512-1515) information that the kingdom had passed its prime 100 years earlier. The shards also corroborate stories that it had been the greatest maritime kingdom of its time by including fragments of rare Chinese Yuan-dynasty blue and white. Three shards from early 15th C Chinese blue and white are even more rare. Archaeology has not yet been able to confirm finds of this ware elsewhere in S. E. Asia.

The authors are superbly qualified, and the result is fresh new data on a major S. E. Asian classical kingdom in the region. Prof. Naniek is the ceramics specialist at the Indonesian National Research Centre for Archaeology, and Dr. Dupoizat has catalogued trade ceramics from three shipwreck cargoes as well as from many land sites in Java, Sumatra and Cambodia.

Jar fragment, one of only three Chinese blue and white shards from the beginning of the 15th century.