NUS MUSEUM

Archaeology Library

Front cover: Kiln wasters – bowl bases with stacking ring around the centre medallion

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NUS CENTRE FOR THE ARTS

Introduction

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People used to think of libraries as collections of written materials. Libraries have now become much more eclectic in their holdings. Audio-visual materials are found in many libraries.

In the Archaeology Library of the NUS Museum, the role of information repository is played by artifacts, most of which are broken pieces of pottery. These fragments may seem like a random jumble of objects without any clear meaning. However, words are not always easy to decipher either, especially if they are written in unfamiliar languages or scripts. Like any other fragments of code, the meanings of these objects require prior knowledge of the culturally-assigned meanings as well as the intentions of the people who created them before the messages which they express can be understood.

No texts can be understood in isolation. Their contexts also must be known. The display cases holding the Lee Kong Chian collection of Chinese works of near the Archaeology Library also contain artifacts including ceramics and metal objects. There are two major differences between the Lee Kong Chian collection and the Archaeology Library. One obvious difference is that the Lee Kong Chian collection consists of intact objects. A second, less obvious difference is that most of the Lee Kong Chian artifacts have no known provenance. We can infer some information about where and when they were made, and the symbolism inherent in their forms and materials, but we know nothing about their role in history. Who owned them? How were they used? How did they come to rest in the NUS Museum? Most of them were bought from dealers or donated, but we know nothing about their previous histories. Were they used in temples, palaces, or buried in graves? Were they passed down through generations as heirlooms? Their informational content is limited. They have few stories to tell us.

The artifacts in the Archaeology Library were found in archaeological research. We know where they were deposited by their last owners, and what other artifacts were found beside them. Even though they are fragments, they can tell us a lot more about the humans of the past who made, used, and discarded or lost them, than the LKC artifacts, which are beautiful but detached from each other and their own pasts. The objects in the Archaeology Library thus come with complex contextual information which can be used to unravel not only the past histories of the artifacts themselves, but of the society and the times when they were part of important events. They can thus be read like manuscripts, paintings, or carvings. They talk to each other; they exist in a perpetual dialogue with the other items found with them, and with the soil layer and geographical location where they were unearthed or lifted

off the seabed. This Archaeology Library can teach us much about the past lives of Singaporeans and the people of the other regions with whom ancient Singaporeans were in contact.

Archaeological research has been in progress in Singapore since 1984. This gallery presents some results of that research, and demonstrates that Singaporeans in the 14th century already had access to a wide range of local and imported consumer items. Pottery is a very good source of historical data; although it is easily broken, it is very difficult to destroy. Sherds are practically immortal. The goal of the Archaeology Library is to serve as a reference collection which is relevant to many people, from primary school pupils to students and scholars who are interested in the history of Asian trade and society. Such reference collections are rare, and are usually closed to the public. By making this collection available, the NUS Museum enables people to appreciate the sophistication of early Singapore's commerce and lifestyle and the importance of efficient communication with other ports and kingdoms.

Singapore became a large town in the early 14th century. It was an independent polity, but had to pay tribute to empires in Thailand (Ayutthaya) and Java (Majapahit). From 1400 to 1600 Singapore was a part of a Malay kingdom ruled first from Melaka, and subsequently from capitals in Johor and Riau. Trade with China, the Indian Ocean, and other Southeast Asian countries was a major part of ancient Singapore's activity.

The artifacts under the floor of the Library remind visitors that most of the items on the shelves were found in archaeologists' trenches. The trench also symbolizes a timeline, with artifacts arranged in order of age beginning in 1300 and continuing until the 20th century. The artifacts have been sorted into categories; the museum has thus provided a kind of guide to one way in which these objects can begin to be read, as documents of history. The fact that you can walk on top of them reminds visitors that when they walk in parts of modern Singapore, they are walking over artifacts still lying undiscovered in the ground.

The sequence begins with Malay earthenware made in 14th century Singapore, and stoneware and porcelain from China from the Yuan dynasty. Also in this part of the trench are stoneware jars with dragon motifs, probably made in Vietnam, and sherds of stoneware jars, both glazed and unglazed, of unknown origin. The colonial period in the 19th century is represented by Chinese porcelain, including white monochromes, porcelain with cobalt blue decoration, Malay black-burnished cooking pots, construction materials such as roof tiles and bricks, and glass.

Excavation at Istana Kampong Glam, Singapore, 2000

Excavation at Empress Place, Singapore, 1998

White sand at the Padang, Singapore, 2003

Archaeological sites in Singapore as of 2014
Map courtesy of Goh Geok Yian

Thai celadon ware with 'onion-skin' pattern on cavetto. The dish (left) was found on the 15th century Longquan wreck while the bowl (right) came from the 14th century Nanyang wreck. National University of Singapore Museum Collection

Artifacts from the Sea

Not all the items in the Archaeology Library are broken. The oldest objects here were found on a sunken ship about 700 km south of Singapore near the island of Belitung, Indonesia. This island is located in the middle of the shipping route from the South China Sea to the Java Sea. Two important shipwrecks have been found here. One of them known as the *Belitung or Batu Hitam* Wreck was a dhow made in the Persian Gulf which sank around 830 CE. Its main cargo consisted of Chinese ceramics. The *Belitung* objects here have been loaned to the NUS Museum by the Asian Civilisations Museum. They include glazed pottery from several parts of China. Most were bowls used for drinking tea, made at the site of Changsha in Hunan Province. Unusual ceramics include cups for drinking wine, equipped with tubes through which the liquid could be sucked like a straw.

The ship was probably on its way to Java when it sank. No evidence that Singapore was inhabited at that time has yet been found, but 40 km west of Singapore is an island called Karimun which was well-known to ancient seafarers. An inscription was carved in tall letters of a type used in Buddhist monasteries in Bengal in the 9th century. The text tells us that an adherent of Mahayana Buddhism named Gautama left his footprints on the rock, and that he possessed an astronomical instrument called an armillary sphere. From this we can conclude that a society of literate people with access to rare imported scientific instruments lived in the Singapore vicinity when the *Belitung* ship sank. In the 19th century some Sea People (*Orang Laut*) regularly migrated back and forth between Singapore and Karimun. Perhaps future archaeologists someday will discover evidence that people lived on Singapore in the 9th century.

Six centuries later another ship sank near the *Belitung*. This vessel, called the *Maranei* or *Bakau* Shipwreck, was built in China and was carrying cargo from China, Thailand, and Vietnam to Java. The ship sailed at a time when Chinese merchants were forbidden to leave China; it was thus on a smuggling voyage. It is one of the oldest ships to have carried cannon on board. Singapore may have been one of the ship's ports of call before it sank.

Ceramics from Labor, Pinggang and Tuara – three 18th wrecks found in the sea off Sulawesi

More shipwrecks from the 15th century have been found off the east coast of the Malay Peninsula. Several of these combine Chinese and Southeast Asian shipbuilding techniques. They carried cargoes of ceramics made in Thailand, which took the place of Chinese wares during the era when China cut itself off from the outside world.

Other items from shipwrecks in the library include blue and white Chinese ceramics from the 17th and 18th centuries, found near Sulawesi, eastern Indonesia. Together, the artifacts from shipwrecks tell us a different story from the rest of the library. On land, artifacts from the same layer may have been deposited there over a period of decades. Shipwrecks on the other hand are frozen moments, time capsules of a single day or night when disaster struck. They record information about items being traded in markets in and near Singapore at a single point in time. They also tell us about the lives of the sailors and traders who were on the ships when they sank.

Artefacts on the deck of the barge during the excavation of the Java Sea Wreck

Ceramics from India

Indian culture was highly influential in early Southeast Asia, but many Indian exports were made of perishable material such as cloth, and are not found in our Archaeology Library. Indian ceramics are mainly low-fired earthenware meant for daily use. They are not highly decorative and were not usually exported, although some may have been carried abroad by traders for their own domestic use. Examples of these in the library mainly come from southern India. These were not found in excavations; they were picked up from the surface of the ground by archaeologist E. Edwards McKinnon.

Backfilling of archaeological excavation, Kota Cina, 1977

Excavation of brick foundation, Kota Cina, 1977

Kota Cina = Chinese Stockade: An Early Foreign Enclave in Northeast Sumatra.

The site of Kota Cina on Sumatra's northeast coast was inhabited from around 1080 until 1250. Several major ports at the north end of the Straits of Melaka prospered during this period. Stone statues of Hindu and Buddhist deities from southern India and Sri Lanka found at Kota Cina suggest that this port practiced religious tolerance. During this period Chinese traders began to visit Southeast Asia rather than waiting for foreigners to come to China. The

Stone lingga, Kota Cina

Buddha statue, Kota Cina

Indian stone and glass beads, Kota Cina

Chinese government relaxed old restrictions on commerce. Sites of this period display a broad variety of Chinese ceramics.

Kota Cina yielded many Chinese coins. These were no doubt used in daily life. Chinese officials complained that much of China's metal currency was being shipped to Southeast Asia to pay for useless luxuries such as incense, kingfisher feathers, ivory, and various substances from the forests which were used as medicine in China. To compensate for the imbalance in trade, China's government encouraged the export of ceramics. Chinese producers and sellers of ceramics had to adjust their wares to the local tastes of Southeast Asian societies. The Chinese wares of the Song Dynasty (960-1279) tell us about the dialogue between Southeast Asian connoisseurs and Chinese potters in a display of international contacts.

The Archaeology Library also includes sherds found at the kiln sites in China where pottery was made. These items can also be used to study the techniques and tools used by the potters. We also can observe the different types of pottery made for use in China which was not popular in foreign markets.

Local earthenware pottery was also made in northeast Sumatra. It was used in everyday activities such as cooking and storing food and other commodities. It was decorated in various ways including paddling with carved pieces of wood to produce geometric patterns. Some earthenware made from very fine clay was also imported from southern Thailand where ceremonial water ewers called *kendi* were produced. The porous earthenware cooled the water inside it through evaporation.

Chinese porcelain kendi, Kota Cina

Local paddlemarked shell tempered earthenware, Kota Cina

Southern Thai fine paste ware

Arabo-Persian pottery, Kota Cina

Temasek and Singapore, 1300-1600

Temasek is first mentioned in a Chinese text written in 1349, by a merchant named Wang Dayuan who visited here twice in the 1330s. The name Longya men, "Dragon's Tooth Strait", appeared earlier, in 1320, when a Chinese mission came here to acquire tame elephants. Wang noted that Longya men was at the western part of Temasek. There was a port there which was associated with pirates. Nearby was a settlement of honest people at a place he called *Banzu*, the Chinese transcription of Malay *Pancur*, "spring of water", which was on a hill. This spring still existed when the British arrived in 1819; it flowed from the western side of what is now Fort Canning Hill into the Singapore River, and provided a superb source of drinking water. According to tradition, it had also been the bathing place of Singapore's ancient princesses.

According to the *Malay Annals* or *Sejarah Melayu*/*Sululatu's-salatin*, Temasek's name was changed to Singapore when a prince saw a strange creature here and decided to found a kingdom. The *Annals* say that Singapore became a great seaport which fell to a Javanese attack around 1396. Javanese sources also claimed to have conquered Temasek and made it into a vassal. Melaka was founded in 1400, but Singapore remained an international port and formed the base of Melaka's navy until 1511, when the Portuguese conquered Melaka. Singapore still had a harbourmaster in 1604. Soon thereafter, much of Singapore's population moved to the nearby island of Bintan, though Sea Nomads based in Singapore waters continued to play a significant role in local warfare for the next 200 years.

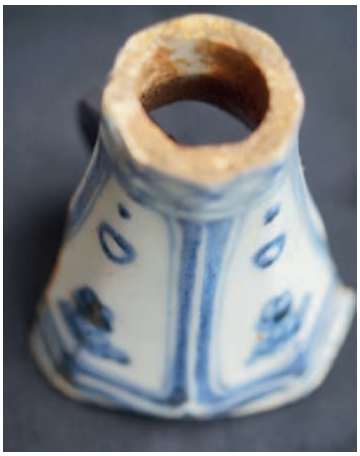
Archaeological research in Singapore began in 1984. The results prove that the Chinese, Javanese, and Malay sources are based on reality. Dense remains of 14th century occupation were first discovered on Fort Canning Hill, and more remains of the 14th through 16th centuries have been found along the Singapore River, at the Padang, and in the grounds of St. Andrew's Cathedral. The hill was a centre of religion, artisans, and royalty. The lowlands were occupied by craftsmen and traders.

The vast majority of ancient documents from Temasek displayed in this library are ceramic sherds. A few are fragments of glassware including ornate bottles and thousands of beads found on Fort Canning. Fragments of molten glass which congealed on the ground prove that the shards were recycled into bangles on the hill.

Rare or unique Chinese items include fragments of a porcelain compass and a pillow in the form of a Chinese theatre, both found on Fort Canning Hill. Traces of gold jewellery making were found in the same area, indicating that artists working for the palace once practiced their skills there.

Blue and white compass bowl, Fort Canning Hill, Singapore

Gold, Fort Canning Hill, Singapore



Mouth of blue and white vase (玉壶春瓶), Fort Canning Hill, Singapore

Base of blue and white stem cup, Fort Canning Hill, Singapore

A few ceramics decorated with cobalt blue designs were found on the *Belitung* Shipwreck, but no more were made for the next 500 years. This ware was revived in the 1320s at Jingdezhen, but was interrupted in 1352 when the site was overrun during the battles between Yuan and Chinese which led to the founding of the Ming Dynasty in 1368. It was only made for export during this period; few examples are found in China. The underglaze blue decorated wares from Singapore are among the first ever made, and demonstrate how prosperous and cosmopolitan the port was in the early 14thcentury.

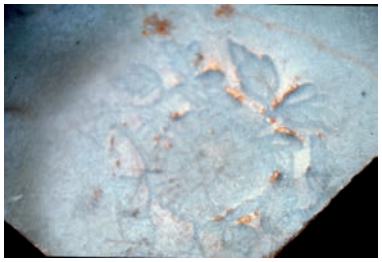
Blue and white bowl, Fort Canning Hill, Singapore

Green jarlets, Fort Canning Hill, Singapore

Green porcelain on the other hand is a very old type of Chinese pottery. It was decorated with many techniques and motifs, such as molded relief fish, stamped

Green fluted bowl, Fort Canning Hill, Singapore

Stamped lotus motif on greenware, Fort Canning Hill, Singapore



Stamped chrysanthemum morif on greenware, Fort Canning Hill, Singapore

chrysanthemum blossoms, and incised lines. Most people in ancient Singapore probably owned a few pieces of this ware.

Plain white porcelain was highly esteemed in China. Two favorite shades of white were bluish (called *qingbai* in Chinese) and a bone-white tone called *blanc de chine* by later Western collectors. The white wares were smaller and more refined than the green porcelain.

Body of white porcelain incense burner, Fort Canning Hill, Singapore

Fragments of white porcelain pillow, Fort Canning Hill, Singapore

White porcelain, Fort Canning Hill, Singapore

Guangdong jar, St. Andrew's Cathedral, Singapore

Stoneware stamp, St. Andrew's Cathedral, Singapore

The most common 14th century artifacts in Singapore were coarse Chinese jars. They were made as shipping containers for all kinds of commodities, from finer more fragile ceramics to food and drink. Once unloaded in Singapore, they were adapted for many other purposes such as containing lime for betel chewing, which was probably common here. Even these ordinary objects had some decoration, including stamped Chinese characters which may have been names of businesses, or expressions of hope for prosperity.

The most common Singapore product found in archaeological research is earthenware pottery. Local earthenware was approximately as common as Chinese ceramics despite its fragility. Singapore had a range of industries involving the processing of imported materials, including tin and copper as well as gold and glass, but there must have been many potters producing utensils used in everyday life. They are often decorated with the carved-paddle impressed technique.

Earthenware from various sites in Singapore. Carved-paddle impressing, stamping and punctuating are a few of the techniques used to decorate the body of the vessels.

Candi Tikus, Trowulan

Candi Brahu, Trowulan

Candi Kedaton, Trowulan

Segaran, Trowulan

Trowulan

Temasek had to pay tribute to the Javanese kingdom of Majapahit, the capital of which was located at Trowulan, near Surabaya. We can learn much by comparing the remains of the capital in Java and the port in Singapore, which are 1,000 km apart. The ruins of Trowulan cover about 100 square kilometers, whereas the city of ancient Temasek covers about 1 square kilometer. Trowulan was the centre of a great empire, with large brick temples. Temasek also had brick temples, but only fragments of them remain. Trowulan also imported much Chinese porcelain. In the 15th century Trowulan also imported porcelain from Vietnam. In Singapore only about 10 pieces of Vietnamese porcelain have been found.

Teracotta of foreigner, Trowulan

14th century statue of Sri Tribhuwanatunggadewi, the regent of Majapahit from 1328 – 1350.

Palm leaf manuscript of *Desawarnana*, a poem writen at the Majapahit court in 1365, which lists Temasek as one of Majapahit's vassals

Excavation at Balai Penyelamatan, Trowulan, East Java, 1986

Masjid Agung, Banten Lama

Chinese temple opposite 17th century Dutch Fort Speelwijk, Banten Lama

Banten palace entrance, Banten Lama

Banten Lama/Pacinan

In the 17th and 18th centuries the major trading port in Southeast Asia was located at Banten Lama (Banten), in west Java. Chinese lived in a special zone set aside for them called Pacinan in Javanese. They imported porcelain of very high quality from China, as well as some Japanese ceramics.

Singapore 19th to early 20th century

In 1819 Singapore resumed its ancient position as a major port linking the South China and Java Seas and the Indian Ocean. Few written documents describe the lives of the common people who lived here during that period. Fortunately we have many artifacts to help us fill the gap in the historical record. These come from Tanjong Pagar (Duxton Hill), Pulau Saigon (a former island in the Singapore River), the former Istana Kampong Glam (now the Malay Heritage Centre), Pulau Ubin, and other sites in the downtown area. The diversity of ceramics from around the world, including European ware, tells us much about what it was like to live on this island before Singaporeans began to write about their past.

Other Southeast Asian Sites

This library is mainly dedicated to displaying artifacts which tell us about Singapore. A few items from other parts of Southeast Asia are also included for comparison. Some of these come from Johor, which was Singapore's capital at various times in the 16th and 17th centuries. Others come from the important kingdoms of Bagan (Myanmar) and Cambodia (Angkor) which were not major commercial centres, but which made pottery of their own with unique characteristics. Samples from Sukhothai, Thailand, represent the period when Temasek was attacked by Siamese in the 14th century, and the probability that Temasek also had to pay tribute to Ayutthaya in the 15th century.

Excavation at Duxton Hill, Singapore, 1989

Pulau Saigon, Singapore, 1988

Excavation at St. Andrew's Cathedral, Singapore, 2003

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Brown glazed stoneware found at Kota Cina