

TREASURE FROM THE JAVA SEA (THE 10TH CENTURY INTAN SHIPWRECK)

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The excavation of a 10th century shipwreck in the Java Sea has yielded a remarkable array of treasures and artefacts traded by the mighty empire of Srivijaya.

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There was not much to see on the seabed. The gently undulating sand was punctuated here and there with encrusted stoneware fragments, the odd flash of green on corroded copper, an intact basin, and the occasional granite grindstone. Far more impressive were dozens of blue-spotted stingrays that burst from the sand only metres from my mask, scattering in all directions as I swam over the wreck remains.

Surface artefacts indicated a wreck site roughly 50 metres in diameter. The wreck mound was barely discernible. But the nature of the rather unimpressive stoneware littering the seabed cried out for closer investigation. Stylistically it closely resembled ceramics produced by the kilns of southern China during the Five Dynasties period - the first half of the 10th century A.D.

An expedition was mounted the moment all the necessary permits could be obtained from the Indonesian Government. A fishing boat was chartered from a small island in the Thousand Island group, just north of Jakarta. Talented local divers were hired. While usually employed at fishing, or diving for sea cucumbers and aquarium fish, these divers were also skilled at shipwreck excavation, the Thousand Islands being a graveyard for wrecks both old and new. As with all people who live their lives on the sea, the divers and crew had a healthy respect for this element, inextricably mixed with strong superstition. Before we left the island chickens were sacrificed and their blood poured over the bow of our boat to appease the souls of the sailors that were lost on the wreck. The chickens were then barbecued and eaten with rice, cakes and coffee on the fore-deck after prayers had been said. Their feet were dangled from a string off the stern where they remained for the duration of the excavation.

The wreck site was a diver's delight. Twenty seven metres deep, clear water and low currents allowed us to use a simple surface supplied hooka diving system, with scuba for emergency back-up. With half an hour of decompression in the water after each dive, watching the antics of bat fish and fusiliers that gathered beneath our boat, we could dive for 50 minutes every morning and 40 minutes every afternoon. A rope grid was set up over the entire site to ensure that it was excavated systematically and in order to record the location of all recovered artefacts. Water dredges were used to gently suck away the layer of sand and silt that hid the ancient cargo from view.

While always expecting new and exciting discoveries, nothing prepared us for the diversity and the extraordinary archaeological significance of the cargo we uncovered. The artefacts from this one shipwreck provide graphic evidence of great craftsmanship, advanced technology, religious fervour, cross-cultural influences, and aggressive international trade.

Ceramics were certainly the most profuse artefact type to be recovered. By the end of the excavation over 8,000 intact pieces had been brought to the surface. Nearly half of these were small brown-ware pots, some with handles, some without. The pots, storage jars and basins probably came from kilns in the Chinese provinces of Guangdong and Fujian. Unfortunately, after a thousand years on the seabed, only a few of the ceramics retained their glaze. The best preserved were a dozen or so beautiful white glazed jarlets and dishes. Green-ware bowls and covered boxes with finely incised decorations, and lobed ewers probably originated from the famous Yue kilns of Zhejiang Province. But not all of the ceramics were from China. Hundreds of fine-paste-ware bottles and kendis were probably manufactured in southern Thailand. Large jar shards with a thick, almost iridescent, blue-green glaze were of Middle-Eastern provenance.

Dozens of Chinese coins, many concreted together in stacks, confirmed the date of the ceramics. They were all minted in the year 918 AD or shortly thereafter.

The metals trade was booming. Thousands of pyramidal tin ingots were recovered in concentrations near the centre of the site. They probably came from the rich tin mines near Kedah on the Malay peninsula. Intermingled with the tin were thousands of bronze ingots, most of them simple dome shapes, but others in flat bars and rods. Interestingly, fragments of large bronze statues were also uncovered. Such large pieces did not break up as a result of the wrecking process. They were most probably scrap metal destined for recasting by Javanese craftsmen. Lead slab ingots were also exposed and hauled to the surface with much difficulty. There were over a hundred silver ingots on the wreck, many inscribed with characters indicating that they were payment for a salt tax. They were smuggled out of the country and may have been destined to form Javanese silver coins, silver being absent from the island's mineral resources.

The ship's location on the ancient trade route from Bangka Strait, the fact that none of the bulk cargo items originated from Java, and the presence of several artefacts that are known to come from Sumatra, indicate that the ship was sailing from Sumatra to Java. Although Chinese ceramics and other Chinese commodities formed a large part of the cargo, the ship did not go anywhere near China. The non-Chinese tin was stowed underneath the Chinese ceramics. Hence the Chinese cargo was transhipped at a entrepot port in Sumatra, probably at or near Palembang, the seat of the powerful Srivijaya empire that held sway over much of Indonesia and the Malay peninsula from the 7th to the 13th centuries.

Amongst the material thought to have come from Sumatra are a number of organics, including ivory, deer antlers, aromatic resin, and thousands of candlenuts. The candle nuts, known locally as *buah kemiri* or *buah keras*, were magnificently preserved, to the extent that the fragrance of the kernel could be favourably compared with that emitted by a bag of fresh candlenuts hanging in the fishing boat's galley. Considering the age of the wreck, the state of preservation of the organic finds was nothing short of amazing. Apart from those just mentioned we also found tiger bones and teeth, an elephant's tooth, human bones, and a highly polished human molar.

The presence of these organic artefacts is all the more remarkable when one considers that almost none of the ship's structure has survived. Apart from a few isolated chunks of wood, none larger than a fist, the entire hull has been eroded away or devoured by voracious toredo worms. Fortunately, some of those surviving chunks incorporate important structural elements, including dowel holes, and in one case, an intact dowel. Dowels were used for edge-joining hull planks, a shipbuilding feature that occurred throughout Southeast Asia during the first millennium and beyond. The Chinese used iron nails for edge-joining. Several wood samples have been identified

as Southeast Asian species. So it can be reasonably concluded that the ship was Southeast Asian, and from the cargo and location, most likely Indonesian.

Some of China's finest bronze-ware was on board, elaborately decorated mirrors cast with a special copper/tin/lead alloy that polished to a highly reflective surface. The most impressive examples were embellished with lions, horses, monkeys and birds, all frolicking amongst scrolling vines and bunches of grapes, a popular design carried over from the earlier Tang Dynasty. The Chinese mirrors were excavated alongside their Indonesian counterparts. Chinese mirrors are typically held by a ribbon passing through a knob on the back. Indonesian mirrors, while decorated simply with incised concentric circles, often have elaborate handles attached. Many Indonesian mirror handles recovered from the wreck take the form of a lotus flower, often incorporating a female figure on the stem. One beautiful piece is in the form of *Hanoman*, the Hindu monkey god.

Superb Indonesian bronze sculpture, previously known only from Javanese land sites, made up a considerable portion of the cargo. Religious bronzes included *vajra*, a three or five pronged sceptre, and *ghanta*, which are bells with a *vajra* handle. These two objects were the principal attributes of Buddhist priests, much as the swinging censor is an attribute of the Catholic clergy. Fragmented figurines of Buddha and Buddhist deities also survived, as did *khakkhara*, a rattle-type finial that would have been mounted on the wooden staff of a mendicant priest to announce his presence. Domestic bronzes include elaborate oil lamps, pellet bells for cows or elephants, trays, bowls, and tripods for supporting bronze or ceramic cooking pots. Another array of bronze artefacts was intended as decorative and functional elements for temple doors, including frightening *kala*-head door knockers, floral bolt finials, handles and hinges.

Glass shards were discovered all over the site, possibly from vessels hand blown by Middle-Eastern craftsmen. Most were bases and rims, displaying a wonderful array of colours from clear, pale-green and blue, through brown and dark-green to a very deep blue and purple. Only one pale-blue bottle with a zigzag decoration remained intact. There were hundreds of glass eye-beads, in blue, green and grey. The eye-type decoration on the beads is said to ward off the evil eye.

Such a magnificent cargo would not be complete without an assemblage of gold coins and jewellery, and that is just what the wreck provided. The coins are of the classic sandalwood flower design, and are larger than any previously documented gold coins from Indonesia. They also provide conclusive evidence that gold coins of this design were minted in Sumatra, rather than in Java where there are minimal gold deposits. Most of the jewellery is in the form of rings, some set with amethysts, rubies, emeralds, sapphires and rock crystals. Two massive rings are decorated with ancient *kawi* script, giving them a secondary role as a seal. A twisting *naga*, or snake, hinged on a hexagonal column, is the clasp of a gold necklace. A nearly identical *naga* clasp on a complete chain can be found in the National Museum of Singapore collection. Exquisite scroll-work decorates a gold *caping*, a modesty cover worn by small children. Gold flecks peep through an iron concretion, the golden handle of a large iron dagger. A long slender hexagonal handle may have belonged to a small kris.

After two months of excavation work, well out of sight of land, our salvage platform had taken on the appearance of a derelict refugee boat. The profusion of ropes and hoses dangling over the side combined with racks of drying diving gear to emphasise the look of abandonment. Long tendrils of green weed skirted the hull, rising and falling as we rolled in the swell. But diving twice a day, the constant play of muscles needed to stay upright on a pitching boat, and hauling

hundreds of kilograms of artefacts to the surface by hand at regular intervals, created a lean and fit crew. With a diet of fresh fish caught over the wreck and fruit and vegetables sent out from Jakarta it was indeed a healthy life.

It was with some regret that we pulled the last basket of artefacts on deck. The excavation was over. The divers exposed nothing but sand and shells, having systematically excavated over 70 five-metre grid squares. The blue-spotted rays were still there, joined by huge schools of red snapper, barracuda, and assorted potato cod that had arrived to feast on the worms and crustaceans exposed by the divers. It is hard to imagine a more pleasant working environment.

Back in Jakarta the ceramics were placed in pools of fresh water for desalination. If not leached out, slow growing salt crystals could eventually produce enough force to flake off any remaining glaze, or even crack the clay body. Metallic and organic artefacts were placed in appropriate chemicals to prevent long term deterioration. The field work was done, but only now could the exhausting task of research and documentation begin.

This shipwreck is unique - a locally made vessel trading between Sumatra and Java, between the powerful empire of Srivijaya and the Javanese state of Mataram, over a thousand years ago. She carried bronzes cast in Sumatra, yet showing the strong Buddhist and Hindu influences of India. She carried beautiful ceramics, bronze mirrors, and silver ingots from China. She carried intricate fine-paste-ware kendis and bottles from Thailand. She carried tin from the Malay peninsula. And she carried glass and pottery from the Middle-East. It is hard to conceive that so much cultural and commercial interaction between the lands of the Indian Ocean and the China Seas could be so vividly displayed in the cargo of one small ship. The rapidly contracting world we now live in is not so new. The seeds were sown long ago.

Illustrations:

1. Home for two months, our fishing boat excavation platform.
2. Amidst spaghetti-like hoses, a diver prepares for his stint on the seabed.
3. A basket load of ceramics feels the heat of the sun for the first time in over a thousand years.
4. A freely incised fish adorns the side of an encrusted ewer.
5. Nested snugly inside a coil of rope, a jarlet awaits cleaning.
6. Three glass eye beads, said to ward off the evil eye.
7. A bronze kala-head door knocker intended for a temple door.
8. Rows of silver ingots, several inscribed with Chinese characters.
9. A hinged golden *naga*, the clasp for a gold necklace.
10. Piles of brown-ware pots undergoing desalination.