



The Underwater Archaeology Center of China was set up 22 years ago by a man with a mission — Zhang Wei. Until then, underwater archaeology was unheard of in China and there was little or no interest in the many shipwrecks along the country's vast coastline or further south into the Asian Sea (*Nan Hai*). Zhang (right), a university graduate (Beijing) and trained diver (Holland), was spurred into action by the discovery of a wreck in August 1987, near Shangchuan (St John's) and Xiachuan Islands. This ancient wooden ship, and the fruits of his labours, are now in the world's largest museum dedicated to underwater archaeology.



The Guangdong Maritime Silk Road Museum houses the 'oldest and best preserved shipwreck in China'. It is labelled Nanhai No.1, as its name is not yet known. It was a merchantman, about a 100 feet in length, laden with porcelain, silver, copper coins and other items when it went down, probably in a storm, more than 800 years ago.

The museum building is quite spectacular. It looks like a huge space station (right) sited on an empty expanse of sandy beach on Hailing Island in the southwest of Guangdong province, about three hours drive west from Zhuhai.

The recovery of the Nanhai No.1 represents a massive leap forward for Chinese maritime archaeology and there are now about 60 marine archaeologists (all trained at a nearby camp) engaged in wreck searches high up into the Pearl River Delta and even within inland lakes and waterways.

Bill Jeffery (PhD) was one of an early group of Australian archaeologists

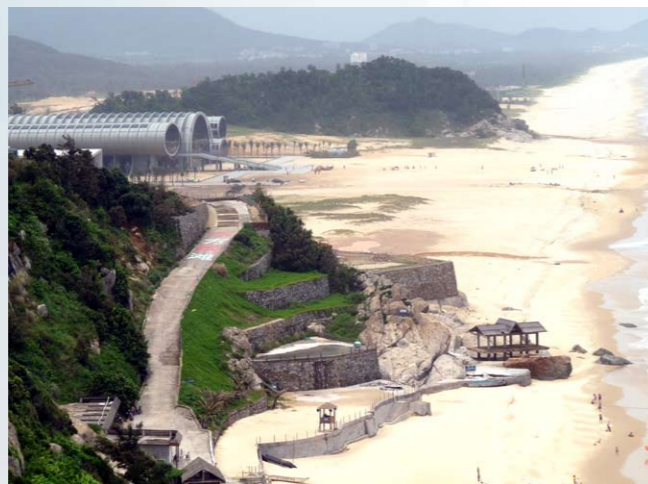
who were invited to train the first batch of Chinese scientists back in 1990. He finds their progress remarkable. "It's amazing what they've achieved and how much money has been invested in maritime archaeology," says Jeffery.

The deputy curator of the museum is Zhang Wan Xing. He makes an enthusiastic and knowledgeable guide to this giant new museum which is already a firm favourite among locals, judging by the number of vehicles and people in the car park outside.

The centrepiece of the museum is a huge Perspex 'fish tank' nearly 70 metres long known as the Crystal Palace which houses the Nanhai No.1.

Unlike any other shipwreck in the world, the Nanhai No.1 was salvaged intact from the seabed in a stunning feat of underwater engineering that took eight months to complete—starting on the 8th of April and ending on the 24th of December 2007. The story is told, in an animated reconstruction, in a special theatre.

The sunken ship was discovered by a Sino-British team while searching for the wreck of



an 18th century trader, the *Rhynsburg*. China's State Administration of Cultural Heritage stepped in and two years later 'official' salvage work began, but with little success. The Nanhai No.1 was lying 14 nautical miles southeast of Hailing Island in 25 metres of silted and very murky waters. Strong tidal streams

made matters worse for the salvors. But the ship was in a well preserved state and, after many years of investigations, it was clear that it was something special. Coins recovered (right middle) dated the wreck at around 1132 — this means it operated during the Southern Song period (1127-1279).

Recent calculations have the ship measuring 30.4 metres in length, with a beam of 9.8 metres and a draft of four metres. There is damage to the accommodation on the upper deck and there is a large fracture to the forward end on the hull.

To raise the ship, an enormous 35.7-metre steel container was built, open at the bottom like an inverted steel shoe box with a sacrificial base section. The structure weighed over 500 tonnes.

Using a specialist heavy lift barge, the giant container was positioned on the seabed directly over the wreck. Over 4,000 tonnes of weighted blocks were



then placed on top of the steel box forcing it down so that it buried itself deep into the soft sediments of the seabed.

Cross members were then inserted

into the container along its length. The sacrificial base section beneath the cross members was then cut free and the entire wreck site raised to the surface . . . complete with fish, sediment, crabs and seawater!

The combined weight of the wreck, its new housing and the seawater meant that the lift nearly exceeded the 5,000-tonne load limit of the barge.

So, it had to be suspended beneath the surface of the water until a second lift vessel could share the load and assist in bringing it on deck. One small mistake, or mechanical failure, and the entire contents of the huge 'wreck box', including 60,000 to 80,000 priceless historic artefacts, could have

been smashed to pieces. On the 22nd of December 2007, after 10 years of preparation, the final lift (right) was completed in just one day.

The wreck box was then landed at Hailing Island and transferred, via a purpose-built 363-metre concrete ramp, over the beach and into the new museum. Once inside, the construction of the museum's external wall was completed.

When the giant box was removed it left the entire wreck encased in its original sediment, sitting at the bottom of the Crystal Palace (top right). Excavation has continued since then, without the need for divers, boats and underwater vehicles all struggling against the elements. "The entire wreck never leaves its seawater environment," deputy curator, Zhang, explains.

The uncovering of Nanhai No.1 will be a long and detailed business. "It could take archaeologists over 10 years to complete a job of that magnitude," estimates Bill Jeffery.

But what was it that prompted this sudden interest and investment in China's maritime heritage? Zhang is quite candid: "It was Mike Hatcher and the Nanking cargo."

The Chinese authorities were horrified when salvage expert and treasure hunter, Hatcher, recovered the cargo of the VOC ship, *Geldermalsen*, wrecked in 1752, not far from Singapore. The cargo included Chinese porcelain and gold (right) and became known as the Nanking Cargo (or even the Hatcher Cargo). It fetched over US\$20 million at auction at Christies in Amsterdam in 1986.

The Chinese were powerless to have the items returned to them or to

prevent the sale going ahead, so in desperation they sent two officials to The Netherlands to bid for some of the items.

Their US\$30,000 budget did not even allow them to meet a single starting price of any of the 160,000 pieces on sale.

Not surprisingly this was the catalyst that triggered the passionate interest by the Chinese government to locate and protect the country's wrecks and ancient artefacts from overseas treasure hunters. The Nanhai No.1 is a powerful symbol of their determination.



the four most prominent kilns of the Song dynasty — Jingdezhen, Longquan, Dehua and Cizao.

One delicate shadowy-blue glazed bowl with embossed motifs and a rim of chrysanthemum petals (right) is unique and has never been seen before. This is of great scientific significance and also

makes many of these pieces priceless in commercial terms. "The Chinese have been making products to order since the 9th century," adds Dr Stephen Davies of the Hong Kong Maritime Museum.

Elsewhere in the Guangdong Maritime Silk Road Museum, the Nanhai No.1's porcelain is exhibited along with other artefacts including the ship's stone anchor stock and iron nails wrapped in bamboo packaging that would have been deck cargo.

At this stage Zhang doesn't know where the vessel was from or where it might have been heading. No records are known to exist from that far back . . . but there's always hope some will be found.

Given the fascinating salvage of Nanhai No.1, and the radical design of the building (below), the sheer size of the excavation can leave the visitor wondering what is missing. In time, there will be more recovered, more items on display and, hopefully, more to inform those with an interest about

China's maritime relationships with Asia, Africa and beyond.

The majority of visitors will, like us, be asking simple questions about the ship and the learned men absorbed in the project could even provide some educated guesswork. Like where the vessel was built, where it might have been heading, how many crew on board, what navigational tools were used and, most importantly, what happened on that fateful day more than 800 years ago when a Chinese merchant ship foundered and sank just 14 miles from safety.

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