The “good life,” without moderation, can be...
nothing they had seen before. “The ornamentation was totally different” from anything else made in China at the time, says Zhang Wanxing. “Everybody was shocked and excited,” adds Cui Yong, vice director of the Underwater Archeology Research Center of the Guangdong Provincial Institute of Cultural Relics and Archaeology.

The first formal underwater excavation began in 1989. Zhang Wei, director of the National Underwater Team and vice director of the National Museum of China, found a wooden block—perhaps part of a mast—and a second diver found a fragment of porcelain. Those were the only two items recovered by divers until 2001, when an excavation sponsored by the Hong Kong China Exploration Association netted more than 6000 objects, including ceramics, coins, and metalwork. From 2002 to 2004, a $5.9 million program undertaken by the National Museum of China used radar soundings to map out Nanhai 1 and confirmed the excellent condition it appeared to be in.

A huge decision confronted the experts: whether to excavate Nanhai 1 where it lay or haul it ashore first. One other wreck had been raised intact successfully: the Vasa, a 17th century Swedish warship that was lifted from the bottom of Stockholm harbor in 1961 (Science, 12 September 2003, p. 1459). But Vasa was a special case: The harbor’s frigid, less saline waters had shielded its hull from marine worms that devour wood. Nanhai 1 was saved by silt that had quickly engulfed it.

On a visit to China in 2004, George Bass of the Institute of Nautical Archaeology (INA) in College Station, Texas, widely considered the father of marine archaeology, recommended that Nanhai 1 be excavated like almost all other wrecks have been: by disassembling it on the seabed. Zhang Wei agreed, envisioning a 2-year-long in situ excavation. But in 2005 an expert panel organized by the National Heritage Board of China opted instead for a more ambitious plan proposed by the Guangdong government.

The $13 million salvage operation, using a 530-ton steel container specially designed for Nanhai 1, was “dangerous and difficult,” says Zhang Wanxing. Engineers slid 36 steel beams, each weighing 5.3 tons, through 15 meters of mud—with an allowance for error of less than 10 centimeters in the murky water. They succeeded, and once Nanhai 1 was cradled in its container, a floating crane that bobbed precariously on the swells raised it to the surface.

The success put Chinese underwater archaeology on the map—and left Bass, for one, “awed.” “We carried out an excavation that no other country had dared to try,” says Zhang Wanxing. Jeffrey, too, is impressed. “It is something you dream about: sealing the ship and all its cargo and fittings inside a large container, raising it, and bringing it ashore so you can excavate it in sheltered, cleaner, and warmer waters,” he says.

The groundbreaking operation spawned a new concern, however: how long Nanhai 1 can hold up in its present environment. “Leaving it in water would be highly unusual, as this will eventually degrade the wood,” says INA archaeologist Shelley Wachsmann. }

Although Nanhai 1 is still submerged in seawater, says Zhang Wei, “it’s uncertain how to maintain the chemical and physical environment … and whether the boat can be protected.” Simulations done at Sun Yat-sen University in Guangzhou have provided some guidance on ideal conditions for Nanhai 1. But “it is not so easy” to put theory into practice, says Zhang Wanxing.

Zhang Wei and others also had nagging doubts about whether Nanhai 1 survived the move to Hailing, about 75 kilometers from the salvage site. A preliminary analysis organized last summer by Guangdong provincial Institute of Cultural Relics and Archaeology was reassuring: Nanhai 1, they found, is intact. “That set my mind at rest,” says Zhang Wanxing. The team also excavated portions of the hull and recovered more than 200 artifacts, mostly porcelain. Protecting the ship’s integrity is now the top priority.

Once archaeologists are satisfied Nanhai 1 can withstand further scrutiny, they will begin a methodical disassembly. The excavation will be carried out in full view in the $22 million museum, which opened last December. “It’s really a good opportunity for the public to learn about underwater archaeology,” says Zhao Jiabin, director of the Underwater Archaeology Research Center of the National Museum of China. The museum already has loads of artifacts on display and in its storerooms that will help scholars fathom the maritime Silk Road, says Zhang Wanxing. And more secrets are waiting to be revealed. –LI JIAO

Li Jiao is a writer in Beijing.