An Ordinary Ship and Its Stories of Early Globalism
World Travel, Mass Production, and Art in the Global Middle Ages

ABSTRACT An ordinary ship and its cargo can tell the story of far-flung global markets, human voyaging, and early industrialization in China that supplied exports to the world. Sometime after 825 CE an Arab dhow set sail from the port of Guangzhou in coastal south China, having unloaded its goods from the Near East, and reloaded with some estimated 70,000 ceramics and other items, on its return voyage to the Abbasid empire. Taking the route that has been called "the maritime silk road," this hand-sewn ship made of planks fastened with coconut fiber (without any nails) seems to have decided to offload some cargo first in maritime Southeast Asia, perhaps intending to pick up a secondary cargo of spices, resins, and aromatics for which the Indonesian islands were famed. The dhow sank near the island of Belitung, at a reef called Batu Hitam ("Black Rock").

Fifty-five thousand ceramic wares, along with gold and silver ornaments, ingots, mirrors, ewers, vases, jars, cups, incense burners, boxes, flasks, bottles, graters, and the like—and two objects that may have been children’s toys, and a re-soldered gold bracelet sized for a woman’s wrist—were excavated intact in 1998, and are housed at the Asian Civilisations Museum in Singapore. This ninth-century dhow is the only ship of its kind ever recovered, though hand-sewn ships that plied the Indian Ocean are described in travel accounts from as early as the first-century CE. The dhow is a remarkable example of the global ships carrying people, goods, ideas, religion, and culture, which knit the world into relationship along transoceanic routes. Its vast trove of ceramics is the earliest physical evidence attesting the industrial production of ceramics in China for export to foreign markets as early as the Tang Dynasty (618–907). Designs painted on the great majority of the ceramic wares were favored in the export market, not in China.

Part of the trove includes prototypes of blue-and-white ceramics for which China would become famous 400 years later: ceramic experiments that feature Iraqi designs attesting global interrelationships in art and the exchange of ideas. The crews of ships such as this one were multiracial, multireligious, and assembled from everywhere: The cargo, knowledges, and stories these diverse, anonymous voyagers helped to transfer across the world transform our understanding of scale, time, and globalism.

KEYWORDS: Global Middle Ages, globalism, modernity, Industrial Revolution, Tang shipwreck, Belitung Shipwreck, Asian Civilisations Museum, Tang ceramics

Sometime in the ninth century of the Common Era, in or after 825, an Arab dhow set sail from the port of Guangzhou in coastal South China—having unloaded its goods from the Near East, and reloaded with some estimated 70,000 Chinese ceramics and other items—on its return voyage to the Abbasid Empire. Taking the route that has been called

1. Several scholars make the estimate of 70,000 items, of which an estimated 80% has survived. Marine archeologist Michael Flecker, who directed the second season of the wreck’s excavation, suggests an original weight of around

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“the maritime silk road,” and powered by the northeast monsoon—one of a pair of seasonal bi-directional winds that famously enabled premodern transoceanic navigation from the Persian Gulf across the Indian Ocean to China and back²—this handsewn ship made of planks fastened with plant fiber seems to have decided to offload some cargo first in maritime Southeast Asia, perhaps intending to pick up a secondary load of spices, resins, and aromatics for which the East Indies and Indonesian islands were famed.³

The dhōw sank off the west coast of the island of Belitung in Indonesia in the Gelasa Strait, at a reef called Batu Hitam, “Black Rock” (see map in Figure 1).⁴

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² 25 metric tons, and an estimated breakage level of less than 20%, a relatively low rate (“The Origin of the Tang Shipwreck: A Look at Its Archaeology and History,” in The Tang Shipwreck: Art and Exchange in the 9th Century, eds. Chong and Murphy [Singapore: Asian Civilisations Museum, 2017], 18). The trajectory of the dhōw’s probable journey—given its cargo, the ship’s constituent woods and methods of manufacture, likely sites of shipbuilding, and the history of Indian Ocean trade, ports, goods, routes, navigation, and monsoons—has been repeated in various compendiums of scholarship. See, e.g. individual studies in Chong and Murphy; Krahl et al. (below); and the Nalanda-Srivijaya Centre’s The Belitung Wreck: Sunken Treasures from Tang China (New Zealand: Seabed Explorations, 2004): https://www.iscas.edu.sg/centres/nalanda-srivijaya-centre/research-tools/compilations/the-belitung-wreck-sunken-treasures-from-tang-china.

Dating is possible because one Changsha bowl bears an inscription that says it was made on the sixteenth day of the seventh month of the second year of the Baoli era (i.e. the second year of the short regnal period of the Tang emperor Jinzong): July 16, 816. “It is reasonable to assume, as is done in the interpretation of other shipwreck material, that the cargo was newly produced when shipped or at least consigned for sale within a few seasons of its manufacture” (John Guy, “Rare and Strange Goods: International Trade in Ninth-Century Asia,” in Krahl et al., 20). Radiocarbon dating of the ship’s timber, using “a section of the wooden chock (wedge) that was located beneath the keelson of the ship” supplied a range of dates consonant with the date on the Changsha bowl [Wilson and Flecker, “Dating the Belitung Shipwreck,” in Shipwrecked: Tang Treasures and Monsoon Winds, eds. Krahl, Guy, Wilson, and Raby [Washington, D.C.: Smithsonian Books, 2011], 16).

1. The “maritime silk road,” like the braided overland caravan routes bearing that famous name, “the Silk Road,” is not a “road,” of course, but a term that merely functions as a metaphoric shorthand. Indeed, the transoceanic trajectory with known side routes that emerged over time out of a collection of maritime passages interlinked by key ports and popular commercial destinations and termini might be seen by some as a network more than a “road.” The great system of winds that we call the monsoons (after the Arabic for “season,” mawsim) powered premodern navigation in the Indian Ocean and South China Sea by taking vessels eastward in one season, and back west in another. Named for the general direction from which they blew, the southwest monsoon took ships eastward in the summer months from around the beginning of June to around the end of September, the northeast monsoon, in the opposite direction, issued in the winter months from around October/November to March. Annual variation meant that these bi-directional winds could arrive early or late.

2. Stephen Murphy, curator of the shipwreck’s artifacts at the Asian Civilisations Museum in Singapore, reasons that the “owners or merchants who chartered the Tang Shipwreck may have stopped off in Java to trade some of their ceramic cargo for the rare spices from the Moluccas, with the knowledge that they would make hefty profits from these lightweight and easily transportable commodities” (“Ports of Call in Ninth-Century Southeast Asia: The Route of the Tang Shipwreck,” in Chong and Murphy, 146). John Guy, curator of South and Southeast Asian Art at the Metropolitan Museum of Art in New York, agrees with this projection (“Rare and Strange Goods,“ 15). Flecker, too, believes it is “quite possible that the Belitung ship was heading for an Indonesian port to top up its cargo with spices from the eastern archipelago before finally embarking on the long crossing of the Indian Ocean” (“A Ninth-Century Arab Shipwreck in Indonesia: The First Archaeological Evidence of Direct Trade with China,” in Krahl et al., 118). That the dhōw may have had stopover destinations for purposes of trade and other aims, including diplomatic aims, while on its way back to the Abbasid empire, is an argument that follows below.

3. Professor Hsieh Ming-liang of the National Taiwan University’s Graduate Institute of Art History supplies an example of the transoceanic maritime route accounted for by the mid-ninth century Arab merchant Suleyman al-Tajir (Suleyman the Merchant, a name which appears in the anonymously-authored first part of Abu Zayd al-Sirafi’s tenth-century account): a route which issues from Siraf in the Persian Gulf, moves south to Muscat in Oman, across to the southwestern coast of India, and thence across the Bay of Bengal to northwestern Sumatra, down the Straits of Malacca, through the Johor Straits, and thereafter northward to Vietnam, finally reaching Guangzhou (“The
Approximately 60,000 ceramic wares of all shapes and sizes, along with intricately patterned gold dishes and bowls and a remarkable gold cup with affixed human figures in relief, finely engraved silver boxes, wrought bronze mirrors, ewers, vases, jars, bowls, incense burners, flasks, a grater, coins, an ink stone, a glass bottle, silver bullion in the form of ingots, lead ingots, gold foil—and two whimsical toys, a bird-shaped whistle and a dog-shaped paperweight, as well as an intact gold bracelet, and tools and objects of daily use by the crew—were recovered in excavations in 1998 and 1999. About 53,000 of these artifacts are housed at the Asian Civilisations Museum in Singapore today.5

Navigational Route of the Belitung Wreck and the Late Tang Ceramic ‘Trade,’ in Chong and Murphy, 140). A short Chinese account by Jia Dan, a prime minister and geographer, “The Route to the Foreign Countries across the Sea from Guangdong” (Guangdong tong haiyi dao), compiled around 800, furnishes a similar trajectory in reverse, issuing from Guangdong and “ending in the country of Dashi [the Arabs], the Abbasid caliphate” (Hyunhee Park, Mapping the Chinese and Islamic Worlds: Cross-Cultural Exchange in Pre-modern Asia [Cambridge: Cambridge University Press, 2012], 31–34).

5. See Stephen A. Murphy, “Asia in the Ninth Century: The Context of the Tang Shipwreck,” in Chong and Murphy, 18. As with so many shipwrecks, looting had begun before excavation. The wreck was discovered when local divers harvesting sea cucumbers from the seabed happened upon a mound of coral-encrusted ceramics and began retrieving bowls and ewers. “The divers sold the wreck position to Seabed Explorations GBR, a German company that held an Indonesian excavation permit. At the behest of the government, Seabed immediately commenced work, excavating over two seasons, and interrupting work only because of the monsoon (Flecker, “Origin,” 22). Nonetheless, local divers ”returned to carry on looting, often at night. Large jars were too heavy to lift, so the divers smashed them to gain easy access to the perfectly preserved Changsha bowls within. Fortunately they were not equipped with airlifts or water dredges, so the destruction was limited” (Flecker, “Origin,” 22).
The lucky survival of this “supercargo”—as François Louis has dubbed the trove—on an ordinary commercial ship plying the sea routes, opens a rare window onto a global trade in the deep past where ships crisscrossed the oceans with cargoes that were not lost, unlike this one, but were successfully sourced and delivered between distant termini of the world, enriching merchants and manufacturers, and delighting consumers. Remarkably, this ordinary Arab dhows and its extraordinary cargo are our first physical evidence of a lively transoceanic commerce between the ports of West Asia and China as early as the Tang period:

The existence of Arab or Persian vessels on the sea route had long been suspected but was confirmed only by the discovery of the wreck in 1998. Contemporary literature—both first-hand reports by pilgrims, diplomats, and merchants and the popular folk tales that developed from their accounts—had alluded to the dominant role of Arab ships in this period: the Belitung discovery proved that such tales were true.

Although hand-sewn ships that plied the maritime trade routes across the Indian Ocean are described in travel accounts from as early as the first century of the Common Era, this ship without a single nail or dowel was the first ever to be recovered. The Greek

Because the wreck was commercially excavated, rather than excavated by the exacting practices standard in academic archeology, a degree of controversy has attended the excavation. However, several scholars, including the shipwreck’s curator, Stephen A. Murphy, and also John Guy, while preferring by far the exacting procedures of academic excavation, have defended the necessity of urgently preventing further looting and point to the successful excavation of some 60,000 items, the majority of which has since been made available for scholarly study and examination at the Asian Civilisations Museum in Singapore (the Indonesian government has retained a small portion of the cargo). Murphy furnishes a list of 532 items in the museum’s collection (“Asia in the Ninth Century,” 19). J. Keith Wilson, associate director and curator of Chinese art at the Freer and Sackler Galleries of the Smithsonian Institution, and Michael Flecker wryly note that “In an ideal world, all major archeological discoveries would be found as intact gatherings of material at uncompromised sites . . . . Of course, in reality, very few finds come close to these ideals” (“Dating the Belitung Shipwreck,” in Krah et al., 35).

7. “The sheer volume of the ceramics cargo . . . suggests that the ship was on its way to West Asia, where it would have generated considerable wealth for its owners. The Gulf to China route was a long and hazardous one . . . . But for those who returned safely, the rewards were great. One of the few [Arab] merchants involved in the Indian Ocean-China trade for whom we have contemporary records is Abū Qasim Ramīsh. He is remembered for gifting, at great personal expense, Chinese textiles to serve as a cover for the Ka′ba at Mecca, the holiest of Muslim shrines. This wealth flowed from the ships that had successfully completed the longest sea journey of its day, from the Gulf to China, and back. The Belitung ship was part of that great enterprise” (Guy, “Rare and Strange Goods,” 27).
8. Louis François, “Metal Objects on the Belitung Shipwreck,” in Chong and Murphy, 96. “The best known of the early records is the Aḥkār al-Sīn wal-Hind (An Account of China and India), which early in the tenth century was incorporated by Abu Zayd al-Sirafi into a collection of travel writings [that was published in 916 as Sīlīlat al-Tawarikh, The Chain of Histories]. He dated the original text to around 851 and credited it to an Arab from Bara called Sulayman al-Tajir (the Merchant) . . . . He comments on the sewn boats that the shipwrights of Siraf specialized in building; on coconut wood being imported and used by Omanis for their ships; on the dangers of navigating between Siraf and the Red Sea; and on the international trade in aromatics centered on Kalah (perhaps Kedah on the Malay peninsula). Of trade with China, Abu Zayd praised the exceptional artistic skill of the Chinese and described the experiences of various West Asian visitors to the Middle Kingdom and their treatment at the hands of Chinese officials and emperors. In Sulayman of Bara’s time, there had been many Iraqi merchants trading in India and China” (96).
9. China’s records also mention these strange hand-sewn ships: “Líng biāo lu 3i (Strange Things Noted in the South), written during the late Tang, describes the ships of foreign merchants as being stitched together with the fiber of coir-palms and having their seams caulked rather than using iron nails to secure their planks” (Guy, “Rare and Strange Goods,” 22). That this was an Arab or Persian ship (archeologists often do not distinguish between the two,
"Periplus of the Erythraean Sea" tells of vessels like this, sewn together with palm tree cords, which brought people, goods, ideas, religion, and culture across the known world along arterial waterways, knitting distant lands into relationship.10

Art historians and archaeologists often refer to the ship and its treasures as "the Tang Shipwreck" or the "Belitung Shipwreck." The importance of this vessel and its treasures is close to being unimaginable, impossible to overestimate. Not only was the vessel the first hand-sewn dhow ever to be recovered, but more crucially, its vast trove of high-quality, mass-produced ceramics is the earliest incontrovertible evidence attesting to industrial-level mass-production of ceramics in China for export to foreign markets as early as the Tang dynasty (fl. 618 to 907 CE). The rest of the cargo is equally extraordinary. The rare gold and silver items are among

and subsume Near Eastern ships under the category of "Arab" ships) is not in doubt, thanks to analysis of the woods, methods of construction, and historical records of shipbuilding sites and techniques.

The dhow is composed of mixed woods, primarily African timber and African juniper (Afzelia Africana, Afzelia bipindensis, Juniperus procera) and Indian teak (Tectona grandis), but also other woods such as rosewood (Dalbergia sissoo) and palm wood (Flecker, "Ninth-Century," 117; Tom Vosmer, "The Jewel of Muscat: Reconstructing a Ninth-Century Sewn-Plant Boat," in Krahel et al., 123). "Ethnographic evidence of shipbuilding in Oman shows strong parallels with the Belitung wreck. The cross-stitching and through-beam attachment are nearly identical on small craft surviving to today" (Flecker, "Ninth-Century," 116–117). Though the prospect of an Indian origin has been raised, most scholars identify the trade ship as Middle Eastern: "Based on the timber identifications, the Belitung ship was definitely not built in India. It likely was constructed in the Near East, perhaps in the region of Oman, Yemen, or Ira." (Flecker, "Ninth-Century," 118). By contrast, planking on Chinese ships was fastened with nails.

In 2013, a second Arab dhaw was discovered off the Gulf of Thailand, known as the Phanom Surin Shipwreck, and excavated in 2014 and 2015. Its few ceramics are dated earlier than the Belitung wreck—to the mid-eighth century, but the hull is small, suggesting either that the Phanom Surin dhaw had already offloaded its cargo when it was wrecked, or that its cargo had largely consisted of perishables, like textiles, spices, aromatics, etc. (John Guy, "Hollow and Useless Luxuries: The Tang Shipwreck and the Emerging Role of Arab Traders in the Late First Millennium Indian Ocean," in Chong and Murphy, 170–176). The small quantity recovered suggests that the ceramics—including a turquoise-glazed double-handled jar linked to kilns around Basra and the Persian Gulf, and fragments of Persian Gulf storage jars not seen in Southeast Asia before, called "torpedo jars"—might have been on board mainly for the use of the crew (Guy, "Hollow and Useless Luxuries," 171).

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FIGURE 2. The *Jewel of Muscat*, an Omani reconstruction of the ninth-century Arab *dhow* at Belitung, Maritime Experiential Museum, Singapore.

FIGURE 3. The *Jewel of Muscat*, detail, showing the hand-stitched planks of the hull.
“the most important Tang gold and silver ever made” and “the first such discovery made outside China;” some gold items flaunt patterns never before seen.  

Among the incomparable treasures are three Chinese blue-on-white dishes, the only intact specimens we have, created some 400 years before China’s inauguration of blue-and-white ceramics in the Song and Yuan dynasties. The dhow also touts the earliest and largest hoard of Chinese silver bullion ever unearthed inside or outside China—eighteen Chinese silver ingots—affording the earliest indication of Chinese silver bullion’s use in overseas trade, as well as two kilograms of gold foil. Not surprisingly, the entire find has been dubbed “the most important shipwreck in Asia.”

These items, of course, are only the part of the cargo that has survived. In his tenth-century accounts of China and India, Abu Zayd al-Sirafi tells us that for the delivery of Chinese musk to Arab and Persian lands, the maritime route, not the overland one, was favored at this time, and a mite testily criticizes the exposure of the musk to the “moist vapors” of sea travel. Buzurg ibn Shahriyar, a mid-tenth-century shipmaster who collected news of journeys from his informants in Siraf, Oman, and elsewhere, also tells of musk “worth a million dinars,” alongside silk and porcelain from China, as part of the cargoes of ships that plied the Indian Ocean-China Sea route. If the Belitung ship carried musk, however, no trace has survived. Any silk goods the dhow might have carried have also long since disintegrated, but astonishingly, star anise from China—probably Guangdong—has survived in remarkably good condition.

Taken together, this ordinary trade ship and its cargo comprising the earliest examples of many important developments elicit stories of early globalism that can transform our understanding of time, history, art, and modernity itself. The objects survive as ambassadors from the deep past; they are summaries of the socioeconomic relations that propelled international commerce; a shorthand for deciphering political and diplomatic initiatives that were taking place in the world; and a dramatization of the artistic exchanges that were crisscrossing the world’s creative pathways as early as the ninth century.

Unsurprisingly, the Belitung Wreck has been of greatest interest to art historians who specialize in Chinese ceramics—especially ceramics of the Tang dynasty—and to some specialists of the Indian Ocean trade, some scholars of premodern maritime Southeast Asia, and a small academic constituency specializing in ships, navigation, and excavation in the ninth century. By and large, however, outside disciplinary boundaries of this kind the dhow’s massive, multifaceted importance has yet to be brought to the attention of a wide-ranging audience in the humanities.

Nevertheless, for those who are today committed to expanding and advancing the study of early globalism/s, this ordinary ship with its extraordinary cargo is a spectacular
gift. The Tang Shipwreck represents a unique opportunity for a case study to piece together the multilayered relationalities disclosed by the objects, and track the implications of this find and its vessel for our understanding of the global interconnections of a vanished world. Working outward, microhistorically, from the objects themselves and their recoverable biographies, I will attempt a transhumanities reconstructive experiment of this kind.

FOR SALE TO THE WORLD: THE SIGNIFICANCE OF EARLY INDUSTRIALIZATION, SCALE, AND MASS-PRODUCED, EXPORT-MARKET CHINESE CERAMICS

The great majority of the dhow’s ceramics are mass-manufactured bowls from the Changsha kilns of Hunan province, with polychromatic underglaze designs painted on them that were favored in the export market rather than in China (Figure 4). Polychrome wares like these, featuring painted elements in brown, green, blue, and red appeared only in a limited context in China, as funerary objects, but found great popularity overseas. By contrast, monochrome wares were prized in Tang China. Pure white, exquisite, porcelain-like ceramics from China’s Xing kilns in Hebei province south of Beijing, and from Ding kilns of Quyang further north, were poetically likened to silver and snow (Figure 5). Much-admired celadon-green wares from the Yue kilns in Zhejiang province looked to Chinese connoisseurs like jade, intensifying the color of tea sipped from celadon

15. For overseas export, “Changsha potters did not differentiate between the various foreign markets during the early ninth century. The potters focused on making wares that could be sold to and used by all consumers, whether in East Asia, Southeast Asia, West Asia, or Africa” (Kan Shuyi, “Ceramics from Changsha: A World Commodity,” in Chong and Murphy, 52). “Ceramic shards (and more rarely, complete vessels)” have been found in “Korea, Japan, Vietnam, Indonesia, Thailand, Sri Lanka, Pakistan, Iran, Iraq, Oman, Egypt, and Kenya” (Kan, 52).

16. “Even though burial sites . . . in Guangdong province have yielded . . . painted Changsha wares, these discoveries are very rare, and the number of pieces excavated is low . . . . Changsha wares discovered in such finds total no more than twenty pieces” (Hsieh, “Navigational Route,” 140). Changsha kilns reached the apex of their production in the ninth century, their growth likely fostered by international demand, and facilitated by ocean-going transports like the Belitung dhow (Kan, “Ceramics from Changsha,” 46). Kan Shuyi discusses the three main zones of ceramic production at Changsha: Tongguan, Gucheng, and south of Shizhu Lake, within all of which lay individual manufacturing sites (47). In the Gucheng area, ”Sixty-four sites related to ceramic manufacturing (including kilns, workshops, and ceramic waste deposit areas) were most recently recorded in the 2010 survey of this sixty-eight hectare [168 acres] zone” (Kan, 47). According to Liu Yang, “Among the kilns, Lan’anzui, at Shizhu, was likely one of the most prolific of the time. In a 1986 excavation, more than 80 percent of the finds featuring color underglaze decoration were from this site. The thickest ceramic heap in the dilapidated ruins was 3.5 meters deep. Significantly, the name Shizhu was inscribed on one of the bowls from the Belitung wreck . . . tangible evidence that some of the bowls on board were manufactured at this site” (146).

17. “Xing white wares were found to echo the brilliance of silver. Silver shapes with sharp, angled profiles were particularly popular in white stoneware” (Regina Krahl, “Green, White, and Blue-and-White Stonewares: the Precious Part of the Ceramic Cargo,” in Chong and Murphy, 81). Krahl notes that Xing and Ding kiln sites were only sited 100 miles apart, and though “Literary references unfailingly suggest Ding ware to be very close but inferior to Xing in quality and craftsmanship” in fact “some specialists speak only of Hebei white wares in reference to the entire group” (Regina Krahl, “White Wares of Northern China,” in Krahl et al., 201). “The Ding kilns seem to have started in the Tang dynasty by imitating Xing ware but developed fast. By the Five Dynasties period (907–60) they had become more important than the Xing kilns and by the Song dynasty (960–1279) had eclipsed the latter entirely to become the sole white-ware producers of repute in northern China” (Krahl, “White Wares,” 202).
The “shiny green Yue glazes evoked for Chinese connoisseurs the beauty, preciousness, and colouration of polished jade” (Krahl, “Green, White, and Blue-and-White,” 81), while the “growing popularity of tea in the Tang” meant that “Tea was drunk in temples and in elegant homes, during meditation, with incense burning alongside, for its medicinal qualities, and simply as a fashionable, refreshing beverage. The poet and tea connoisseur Lu Yu (730-ca 804), in his famous treatise on the art of tea drinking, Chajing (The Classic of Tea), professed a personal preference for Yue ware tea bowls, since in his opinion their blue-green glaze enhanced the color of tea, yet relates that some of his contemporaries opted for the white Xing bowls instead, as they were said to give a cinnabar cast to the tea” (Krahl, “Green, White, and Blue-and-White,” 80). Krahl is among those who link the increased appreciation of fine ceramics to the growing popularity of tea in the period (“Green Wares of Southern China,” in Chong and Murphy, 186).

“Between the mid-eighth and late ninth centuries, Yue and Xing ware are repeatedly referred to in literature, particularly poetry, as symbols of beauty, elegance, taste, novelty, and wealth. . . . Yue and Xing wares were even compared to the twin souls hun and po, a Daoist concept of interacting opposites that form a whole. . . . a taste for the unmannered beauty of monochrome ceramics . . . crystallized at this time and reached its full maturity in the Song dynasty” (Regina Krahl, “Chinese Ceramics in the Late Tang Dynasty,” in Krahl et al., 48–49). Xing/Ding and Yue bowls were not only admired for exquisite beauty, however, but also for their utility as elite tableware; in his classic, the poet Lu Yu was adamant that tea bowls “had to be either Yue ware from Zhejiang or Xing ware from Hebei; others he declared unworthy” (Krahl, “Chinese Ceramics,” 46). Sipped from bowls, “Tea was then consumed very differently from today. Tea leaves, often shaped into cakes, were ground to a powder, infused with hot water in large bowls, and whisked into froth, or else added to a cauldron of boiling water, stirred, and then ladled into bowls. Mixed with salt and sometimes spices, herbs, fruits, and other aromatics, tea often resembled a soup more than a beverage” (Krahl, “Chinese Ceramics,” 46).
Because they were so highly prized by Chinese elites and the imperial court, the esteem in which these fine white and celadon wares were held in China meant that very much smaller quantities were exported, though they were also prized overseas. The Belitung *dhow* therefore only carried a small, select quantity of these high-value beauties, secreted in a section of the ship away from the mass-produced polychrome products. Numbers tell the story: of the 5,300 ceramics that have been recovered from the wreck, only 119 are Xing white wares and 218 are Yue green tableware.  

But the great popularity of polychrome ceramics overseas in the export market—especially in the Near East, but really everywhere—means that excavations have found Changsha bowls and shards all over the world, from Southeast Asia to India, to Central Asia, the Middle East, and Africa. An intricate system of stacking the bowls tightly in series, and in helical fashion inside large storage jars tightly packed with straw, has delivered the ship’s mass-market cargo, weighing some 25 metric tons (27.5 US tons), largely intact. Proximate dating is possible

20. See Murphy, “Asia in the Ninth Century,” 19. All the white wares found in the wreck, however, together total about 100 in number. The only true competitors for Yue wares “were white Xing wares from Hebei, and the choice between the two was primarily a matter of taste,” while “Yue is said to have been the official ware of the kings of Wu-Yue, who ruled the Zhejiang region during the Five Dynasties period (907–60)” (Krahl, “Green Wares,” 186). Esteemed in China as they were, Yue and Xing wares were also much-sought-after luxury goods in the Near East, with rich sites found all along the Iranian coast and inland, on the Gulf’s Arabian coast, in Mesopotamia, and north Africa (Krahl, “Green Wares,” 187). As for manufacturing sites, “Several hundred Yue kilns have been discovered along the Bay of Hangzhou, in particular around the shores of Shanglin Lake (Shanglinhu) southeast of Cixi, in close vicinity to Ningbo. Of some 200 kilns operating there mainly throughout the Tang and Song dynasties, the majority has now been investigated” (Krahl, “Green Wares,” 187).

21. “Large numbers of [Changsha bowl] sherds have been recovered across the Indian Ocean littoral, with notable finds located at Sri Lanka, Siraf, Samarra, Basra, Antioch, Cairo, and Tanzania. In Southeast Asia, Changsha wares have been recovered in large quantities on both sides of the Isthmus of Kra” (Derek Heng, “The Tang Shipwreck and the Nature of China’s Maritime Trade during the Late Tang Period,” in Chong and Murphy, 147). Analyzing the “cargo of contemporaneous vessels found in the West Java Sea, such as the Cirebon and Intan Shipwrecks” as well as later shipwrecks of the early twelfth- and early thirteenth-centuries, such as the Pulau Buaya Shipwreck and the Java Sea Shipwreck, whose cargoes comprised green and white ceramics produced in Guangdong and Fujian, Heng argues that though “The cargo of the Tang Shipwreck was partly marketable to island Southeast Asia,” the bulk of the cargo “was not intended for island Southeast Asia, but for the Indian Ocean littoral market” (147–148). The *dhow’s* ceramics cargo “mirrors those from key Persian sites, and is reminiscent of the direct Middle East-China trade of the fifth to seventh centuries” (Derek Heng, “Tang Shipwreck,” 148).

22. “Bowls were stacked both athwartships and longitudinally in the hull adjacent to the timbers resting on the keelson … They were also stowed inside large green-glazed storage jars. As many as 110 bowls could be stowed inside a jar when packed in a helical fashion” (Flecker, “Origin,” 28). “The bowls in the Tang Shipwreck were found tightly stacked from side to side in the ship, and also compactly fitted within large Guangdong stoneware jars” (Kan, “Ceramics from Changsha,” 54).
because one ceramic bowl carries a signature: the date of its creation in the Changsha kilns on July 16, 826.

In the last decade and a half, I have argued in several contexts that many markers of modernity already appear in what we think of as premodern time. Industrial mass production, in particular, has been long accepted as a key marker of modernity, and as evidence of the inception of an “Industrial Revolution” in the West. Looking globally, however, we see material evidence of key markers of modernity—such as industrial mass production—appearing in premodern time; leading ineluctably to the conclusion that modernity itself might be a repeating, transhistorical phenomenon, since signs of more than a single industrial revolution have occurred, and in more locales than the West.

A dramatic example are the iron and steel industries of China. The sinologist Robert Hartwell’s data show us that 700 years before Western Europe’s “Industrial Revolution,” the tonnage of coal burnt annually in eleventh-century Song China’s iron and steel industries was...
already “roughly equivalent to 70% of the total amount of coal used by all metal workers in Great Britain at the beginning of the eighteenth-century.”24 Data on the massive use of coal in China, Hartwell’s research suggests, argue for the existence of an eleventh-century industrial revolution already occurring in China, as witnessed by the northern Song’s intensive iron and steel industries.

But even earlier than Song industries is China’s mass production of ceramics in the Tang era, as we see from one ordinary trade ship’s massive cargo of export ceramics. A millennium before modern commercial ceramic production in the West, China was already mass-producing ceramics for the world: another marker of modernity, and material evidence, if we like, of an industrial revolution in ceramics production. It has long been axiomatic that paper money, movable type, printing, and gunpowder were already to be found in China’s long eras of premodernity. Why should scholarship and popular culture continue to subscribe to the idea, therefore, that the Scientific and Industrial Revolutions only began in the West, or that there was only one single industrial or scientific revolution? Should we not be speaking commonly of revolutions that occurred, and recurred, around the world across macrohistorical time?

A perspective like this becomes possible when we study what since 2004 I have called a “Global Middle Ages.”25 Looking globally, we see phenomena that are tagged “modern” recur over la longue durée—eras and centuries of premodernity—each time with difference, of course, each time not identically as before, around the world. This offers us a perspective of history not as simple, linear, and continuous, but as oscillating back and forth between inscriptions, ruptures, and re-inscriptions.

Study of the global past in deep time—that poetic term, “deep time,” is Wai Chee Dimock’s, and adapted from the physical sciences—can thus position critical responses to the tired old foundational narratives of the present, such as the belief in a single monolithic industrial or scientific revolution that occurred only in the West and only in modern time: foundational narratives that are interminably repeated in the academy and in public life.


25. This imperfect term, the “Global Middle Ages,” registers the politically and epistemologically freighted nature of the vocabulary we must use in order to communicate intelligibly with our fellow scholars. Autocritique of the term, in a founding workshop at the University of Minnesota in 2007 and later in print, registers the problematic nature of applying the idea of European time, and its “Middle Ages” (another problematic term devised by Renaissance historiography to name an interval between two ages of authenticity and authority, Greco-Roman antiquity and its renascence) to the rest of the globe, where asynchronous temporalities exist. However, autocritique has yet to deliver a universally accepted alternative naming. The codirectors of the Global Middle Ages Project (G-MAP), a consortium I founded and still lead today, are thus resigned to the use of the term until such time as better alternate naming becomes feasible. We also repeatedly remind that asynchronous eras are studied by premodernists around the world.

Correlatively, while we ourselves do not preemptively apply the term “medieval” or “Middle Ages” to other zones around the world, with their varied and different temporalities, societies, and cultures, scholars of these other zones have sometimes themselves used the term “medieval” or “Middle Ages” to describe their own historiography—say, by referring to “medieval India,” or “medieval Japan,” or to an “Islamic Middle Ages” or a “North American Middle Ages.” Such applications, by scholars of non-European studies themselves to their own geo-cultural zones and temporalities, thus have different valence from occasions when euromedievalists willy-nilly describe the rest of the world by exporting vocabulary typical of the European Middle Ages, and avoids the risk of an inadvertent intellectual colonization through language.
In the process, we can decenter the many, invidious explanations for western exceptionalism: tenacious claims, e.g., of a unique European genius, essence, climate, mathematical aptitude, scientific bent, or other environmental, societal, or cognitive matrix guiding destiny in the so-called "rise of the West" in grand narratives of western origination—such as unique and singular Scientific and Industrial Revolutions—which position the rest of the world as always catching up.

Instead of a heuristic model where a special civilizational genius, climate, aptitude, or essence guides historical destiny in upward progression, we have premodern China’s historical example: an example that attests to the difficulty of building continuously on technological and scientific innovations that occurred in premodernity in the context of repeated territorial invasion and political and social disruption. China’s example thus restores an acknowledgment of the role of historical contingency—of randomness and chance—as operative forces in the shaping of civilizational history.

China’s modernity-within-premodernity also guides us to an understanding of the plural character of time—of polychronicity, if we like—so that we are able to see different temporalities coexisting within a single historical moment, which helps us to make sense not only premodern worlds, but also of societies today around the globe, which can seem modern, postmodern, and premodern all at once.

The surviving 50,000 Changsha bowls from the Tang Shipwreck—out of an original 65,000 or so, and comprising some 95% of the surviving objects—thus carry the weight of extraordinary significance as historical witnesses. As corporate, material witnesses of an early industrial revolution in ceramics production, they evince a staggering industrial scale of consistently high quality. The ceramics, John Guy emphasizes, furnish a barometer of the level of the commercial development that gained momentum during the Tang dynasty (618–907), when industrial-scale production emerged for the first time. Mass production had occurred in the past, but usually for an imperial patron and often for funerary purposes so it was not commercial in the sense of being shaped by market demand.

The massive haul also indicates a substantial financial investment by either a premodern billionaire or, more likely, a consortium of ninth-century risk-sharers participating in contractual international investments in import-export cargos.

We know that Middle Eastern precursors of the medieval European commenda contract system, in which a number of parties might supply capital while other parties supplied labor, appeared early, in the form of the qirad/mudarabah agreements that some economic historians believe to be the precursor of the commenda system in the West. The oldest

26. “The manufacturing capability of these kilns in the 820s is proven by the consistent quality of the bowls in the ship’s cargo . . . Changsha potters were avant-garde in both technical and artistic aspects of their craft. They developed and popularized a distinctive decorative style featuring lively designs painted with iron and copper pigments. The pervasiveness of this aesthetic among the Tang Changsha wares reflects the potters’ confidence in handling this novel type of underglaze polychrome decoration” (Kan, “Ceramics from Changsha,” 59).
extant Italian *commenda* contract, which is Venetian, dates to 1074, though references appear in Italian documents as early as the ninth century. By contrast, the *qirad-mudarabah* arrangement is centuries older, and may have predated Islam. Flexible and sophisticated economic instruments of this kind, developed over centuries to allow for the sharing of risk and profit, and the pooling of human resources, could net “handsome rates of return” with a multiplier effect that vastly expanded early commercial wealth and vitality in Islamicate lands.

Yet before the discovery of the Tang Shipwreck, the extent of the international trade by sea in this early period had only been guessed at, even though it was known that maritime vessels allowed for the transportation of bulky, heavy goods *many times* the weight of caravan cargos. Indeed, ships like the Belitung *dhow* may have critically spurred the production of industrial-scale export ceramics in China, by enabling overseas demand for these ceramics to be met through serviceable ocean-going carriers.

Ships of this kind, transporting large cargoes on the arterial waterways of the world, would then truly be the medium facilitating Tang China’s early industrial revolution in ceramic mass production. Till the mid-Tang dynasty, Regina Krahl urges, colorful Changsha wares were sought after abroad, but rarely found until sea transport, from China’s coastal ports to the Middle East and Africa became entrenched in the latter decades of the eighth century. This was the very time when the output of ceramics in the Changsha kilns accelerated, with the kilns “reaching their apex of production in the ninth century.”

Valuably, the Belitung Wreck demonstrates that by the ninth century, an international network of manufacturers, consumers, and merchants had coalesced to coordinate massive orders of products “transported over vast distances at considerable risk and expense, [and] with considerable profit,” as Stephen Murphy puts it, when the cargoes were successfully delivered. Supply chains supported by ocean-going carriers capable of bearing massive loads thus meant that consumer desire and market demand could be satisfied. And, with the fanning out of China’s attractive ceramics across the world, no doubt desire and demand were reinvigorated and intensified in the perpetual-motion machine of international commerce.

Given its sheer size and expense, the Belitung vessel’s mass-market cargo may have represented not a single gargantuan commission of 65,000 ceramics intended for delivery to one purchaser, but consignments that were amassed and grouped for various buyers and investors situated at more than one terminus along the vessel’s route, and entrusted to the

29. The Prophet’s first wife and first follower, Khadijah, a wealthy trader, is sometimes thought to have entered into a *mudarabah* arrangement with the young caravanist Mohammad (Heck, *Arab Roots of Capitalism*, 225).
31. Kan, “Ceramics from Changsha,” 46. Ceramics, including the colorful ceramics popular outside China, found “an eager clientele abroad . . . [and] reached western Asia by the fifth century, and occasionally even earlier, but the onerous transport across the desert via camel caravans did not make ceramics trade goods of choice, and until the mid-Tang dynasty they remained rare abroad. Proper boat traffic with opportunities for mass transport from the southeastern ports of China to trading posts all across Asia and as far as Africa developed from the late eighth century onward, and the trade of Chinese ceramics to the Near East seems to have been well established by about 800” (Krahl, “Chinese Ceramics,” 49). Liu Yang adds that the first half of the ninth century saw “characteristic Changsha products with colored underglaze gradually become prolific,” while the second half of the ninth century “marked the height of Changsha’s productive popularity and prestige, when wares with color underglaze decoration predominated” (146). The Belitung *dhow’s* ceramics fall *precisely* within this period of prolific mass production.
32. Murphy, “Asia in the Ninth Century,” 19.
owner/s of the ship. Certainly, the tenth-century sailors’ reports recounted by Buzurg ibn Shahriyar—compiled, he attests, from informants in Siraf, Oman, and elsewhere—depict groups of merchants and investors who accompanied or waited for aggregated cargoes on ships that plied the Indian Ocean-China Sea trade.

The wreck’s Changsha bowls, comprising some 96% of all the Changsha stoneware on the dhow, sport an identical decorative schema that underscores their manufacture on an industrial scale. After these earthenware bowls were coated with a layer of slip, a dark brown wash was applied at opposite sides around the rim of the bowls—each bowl being dipped rapidly into the color to achieve this—so that a frame was created with a central focus where a painted design, commonly in brown, green, blue, and more occasionally red, was applied. A shiny transparent over-glaze then enveloped the whole. The painted motifs were repeated over and over, with variations, in a design repertoire suggesting calculated appeal to a wide range of international tastes.

The commonest motifs are of universal appeal, such as flowers, leaves, birds, mountains, clouds, vaporous swirls, trees, landscapes, and geometric and abstract shapes. However, several motifs show what seem like attempts at imitating Arabic calligraphy. Many also depict a fabled, fish-like sea monster known as the makara, notorious in Indian Ocean and Southeast Asian lore. Some display swastikas and stupas that respond to Buddhist cultures worldwide; others sport Chinese characters that detail their provenance, or fiant axioms and poems (Figures 7–11).

33. Freeman-Grenville, Book of Wonders.

34. Kan, “Ceramics from Changsha,” 52. In addition to their famed multi-color underglaze bowls, Changsha kilns also produced a number of other kinds of stoneware, examples of which were also found in the Tang Shipwreck. Of nearly 7,000 ceramic items excavated at kiln sites in Changsha in 1983, Chinese archaeologists distinguished about 70 different ceramic forms, including: ewers and vases (1,514 pieces); bowls and saucer dishes (1,596 pieces); jars (939 pieces); basins and washers (180 pieces); boxes (474 pieces); lamps (188 pieces); tools such as milling stones and milling blocks (81 pieces); objects for the scholar’s desk (64 pieces); pillows (48 pieces); and others (Liu Yang, “Tang Dynasty Changsha Ceramics,” in Krahl et al., 147). Utensil wares “such as bowls, ewers, jars, cups and cups stands, vases, basins, circular boxes, candlesticks, spitoons, lamps, milling stones” and two “entertainment pieces” (147) or “toys” (150) were found in the Arab dhow’s cargo.

35. “Changsha potters developed a number of important technical processes in the ninth century, including the use of iron-manganese rocks [which produced a purple-brown pigment] as high-temperature glaze colorants, underglaze decoration in oxide-rich pigments and glazes, the use of copper oxides as a green and blue-green coloring agent in high-fired glazes, and the apparent discovery and first use in China of copper-red effects” (Liu, “Tang Dynasty,” 150).

36. Whether the flourishes and curlicues seen in the design art of these Changsha bowls are intended to mimic and approximate Arabic calligraphy is of course a matter of interpretation, but art historians allow that “many of these Changsha wares found on the Beldung ship appear to have been designed to appeal to Islamic taste” (Jessica Hallett, “Pearl Cups Like the Moon: The Abbasid Reception of Chinese Ceramics,” in Krahl et al., 78). John Guy observes that Chinese jar fragments unearthed at the Great Mosque in Siraf also have “pseudo-Arabic” inscriptions which tend to confirm that export ceramics of this kind “were expressly produced for the Arab trade” (“Rare and Strange Goods,” 26).

37. Liu Yang emphasizes the influence of contemporary calligraphy, especially the calligraphy of the “wild cursive script,” on the ceramic art of these Changsha bowls, which he detects in the “rapid arm and brush movements” that produce the motifs of cloud swirls, vapor, foliage, floral patterns, and landscape of the bowl designs (151). Among the masters who had an impact on later calligraphers, Huaisu (737–after 798), known as the Wild Monk, was one of the most famous. His brushwork, composed under the influence of wine, is spontaneous, constituting a break from former methods. The fact that Changsha was home to Huaisu suggests that his style would be popular in the region. Indeed, calligraphy on the rediscovered Changsha bowls share the same style and spirit as Huaisu’s wild cursive script” (Liu, 151).
One soulful bowl expresses wistfulness and yearning in a poem that may disclose the artist’s state of mind, as well as his or her awareness of the conventions of Tang poetry:

How far is the southern sky in the eyes of a lone wild swan? / The chilly wind strikes terror into one’s heart. / I miss my beloved who is traveling afar, beyond the Great River, / and my heart flies to the frontier morning and night. 38

Another bowl quizzically displays a non-Chinese face, with curly hair, big eyes, and a large nose: the face of a foreigner from Central Asia or West Asia, and possibly the result of an inspired production worker’s familiarity with the Persian and Arab communities in Tang China, especially in its coastal ports and major cities, including the cosmopolitan capital, Chang’an (today’s Xi’an; see Figure 12). Chinese documents register the presence of large communities of Persians and Arabs, and record their tumultuous histories in the port cities of Guangzhou and Yangzhou, cosmopolitan hubs famed for international commerce.

The southern ports of Guangdong, Fujian, and Zhejiang grew in importance, fueled by the Southern Sea and Indian Ocean trade. Yangzhou, Hangzhou, Ningbo, Quanzhou,

38. Krahl et al., Shipwrecked, 156. The presence of poetry on the ship’s bowls is significant, since the Tang period marked “a golden age of poetry,” and the “civil service examination system made the ability to compose verse an absolute requirement for those seeking a high office” (157). “The excavation carried out in the vicinity of Changsha in 1983 yielded some 248 pieces of either intact or fragmentary Changsha ceramic works that bore inscriptions, 193 of which were inscribed with poems” (Liu, 157). “Many Tang poets also excelled in calligraphy and painting. These three arts later on became known as the sanjue, or the ‘Three Perfections.’ On some of the Changsha bowls, the poems are beautifully rendered in calligraphy, heralding the later development of the ‘Three Perfections’” (Liu, 157).
Zhangzhou, and Guangzhou saw the growth of their expatriate merchant communities—Malays (from western insular Southeast Asia), Chams (from central Vietnam), Indians, and West Asians, each residing in different quarters (fanfang) assigned to them in the city. The most populous communities were the non-Muslim Persians (Bosī), including West Asian Jews and Nestorian Christians, and Muslim Persians and Arabs (Dashi). The scale of these communities was extraordinary . . .

The Huaisheng mosque in Guangzhou is dated to the seventh century, and Middle Eastern pottery litters various sites in Yangzhou, China’s flourishing international metropolis at the junction of the Grand Canal and the Yangtze River. In the middle of the eighth century, at a time of unrest during the An Lu Shan rebellion, Middle Eastern traders and other foreigners based in Guangzhou sacked the port city in 758, and departed for Southeast Asia.  

later, more Chinese political upheaval led to looting and a massacre of the foreign population in Yangzhou, during which several thousand Middle Easterners were killed. But foreign populations in both cities rebounded, and Central and West Asian faces and figures appear on the dhow’s artifacts, including its precious metal ware (Figure 19).

Given that premodern industrial production required people, not machines, to create the ceramic art on these bowls, the vivacity of some images bears witness to lively individual talent and imagination among the ceramic workers. The art historian Liu Yang exclaims admiringly at the “numerous witty variations” of the Changsha artists’ design repertoire, “the organic forms charged . . . with energy,” the “emphasis on spontaneity, extreme formal simplicity, a concern for

41. Derek Heng, “The Tang Shipwreck,” 152; Qui, “Gold and Silver,” 184. Violence also famously recurred in 878–9, when “thousands of Muslims, Jews, Christians, and Parsis perished, according to the contemporary commentator Abu Zayd al-Sirafi. Nonetheless, the communities persisted until the end of the Yuan dynasty (1279–1368), when they were finally purged and expelled. They left evidence of their presence in the form of mosques and Muslim gravestones, most famously at Guangzhou and Quanzhou. Nestorian gravestones and the dispersed remains of Hindu temples have been traced at Quanzhou . . . . These archeological remains point to large foreign communities well sustained by this international trade over many centuries” (Guy, “Rare and Strange Goods,” 21). According to Abu Zayd al-Sirafi, an estimated 120,000 foreign merchants were massacred by Huang Chao, rebelling against the Tang, in Guangzhou (Krahl et al., 12).
the expressive potential of paint and a sense of immediacy," all bound together by "the harmony and integration of one element with another."  

At the same time, perhaps, the modular repetition of certain motifs—some of which are executed in slapdash fashion—may testify to the limiting constraints of the design templates, and to the boredom of the worker in the premodern production line who has to replicate, again and again, a palette of designs to be copied. Like the European scribes and illustrators who intruded marginal doodles, fantasy creatures, and quixotic scribbles into medieval manuscripts out of boredom or flights of invention, the workers of the industrial production line in premodern China also seem to have responded not only with dutiful copying, but also with flights of fancy, splicing delightful flourishes of ornamentation into the background of a primary motif, or letting the imagination take a humorous turn.

One charming comic turn is seen in a drawing of a bird in profile who is leaning forward earnestly while perched on one leg, with its other leg raised and thrust out before him (see Figure 13). Another is a surprising portrait of a decapitated bird, perhaps the impulse of an artist who was feeling particularly savage or mischievous that day.

42. Liu Yang, "Tang Dynasty," 151.
43. Krahl et al., Shipwrecked, Figure 191, 246; Liu, "Tang Dynasty," 155.
Art historians have speculated that these mass-market goods—manufactured as part of a single gargantuan commission? or, perhaps more likely, a number of hefty bulk commissions—may not only have catered to existing tastes in the international market, but may also have been intended to cultivate new demand for them internationally.\(^44\) Derek Heng, one of the foremost historians of the Indian Ocean/China Sea trade, sketches the stages involved in this premodern version of just-in-time production:

The commissioning of the volume of ceramics that the Tang Shipwreck vessel carried out of China would have required sufficient time for orders to be placed, resources accrued for the production of the ceramics, length of time of production, and the packing and shipping of the ceramics from Changsha down the Yangtze River to Hangzhou, where they would be loaded onto the vessel [before it sailed southward to Guangzhou, the south-coastal port of embarkation from China].\(^45\)

TRADING IN ART: PATHWAYS OF CREATIVITY IN INTERNATIONAL DESIGN, EXPERIMENT, AND INNOVATION

Many motifs in the Shipwreck blazon a confident knowledge of West Asian formal elements, signaling a response by China’s production line to Middle Eastern aesthetics and tastes. Large industrially-produced Changsha polychrome jars are adorned with molded palm trees, palm fronds, and palmettes with radiating petals that look like the leaflets of a palm (Figure 14), leading Derek Heng to conclude that “the types of decorations applied onto the Changsha ceramics, all of which hark to the practices, ethnicity, and activities of the Middle East, have important implications [for] the nature of commercial agency of foreign traders in China.”\(^46\) Did individual or groups of Middle Eastern merchants, ensconced in China, solicit designs, or color the making of aesthetic decisions in Chinese ceramic art to meet Middle Eastern market demand?

Design decisions made in the fashioning of ceramic items other than the mass-market Changsha wares also suggest a canny adaptation and re-creation of an artistic vocabulary imported from West Asia. Fanciful, white-and-green-splashed wares forged in the

44. The sheer quantity of Changsha bowls on the Belitung ship may suggest this massive trove was intended to be off-loaded at a number of destinations internationally, or was intended to cultivate new tastes and demand, or both. Kan observes in particular the variation of the bowls in size, with the presence of bowls of an uncommonly large size suggesting perhaps an attempt to cultivate new tastes: “It appears that the massive quantity of bowls on the Tang Shipwreck was specifically ordered and assembled for export. The presence of fifteen larger bowls, measuring 25 centimeters in diameter, further supports this idea. Bowls of this size are only known from the Tang Shipwreck, and they were no doubt specially commissioned for a foreign client. Indeed, there is scant evidence that Changsha potters otherwise produced bowls of such large dimensions, since the vast majority of examples found at kiln sites do not exceed 20 centimeters in diameter” (54). Even bowls with a 20 cm diameter make up less than 1% of the total number of Changsha bowls, Kan noted in a conversation.


46. Derek Heng, “The Tang Shipwreck,” 146. At the excavation of the Great Mosque in Siraf, two Chinese jar fragments were found that had Arabic names incised beneath the glaze: “These inscriptions, made on instruction at the time of manufacture, suggest that Arab-speaking merchants placed the order for these Chinese jars, perhaps that the names served as a record of ownership. They confirm that these jars were expressly produced for the Arab trade” (Guy, “Rare and Strange Goods,” 26). Billy So continues the examination of the export industry in ceramics in the post-Tang era of the tenth to the fourteenth centuries in South China (Prosperity, Region, and Institutions in Maritime China: The South Fukien Pattern, 946–1368 [Cambridge: Harvard University Asia Center, 2000]. See especially chapter 8).
Gongxian kilns of Henan province were sought after in the Abbasid caliphate, and among the *dhows*’ cargo are charmingly dappled, green-on-white ceramics that sport a lozenge motif with leafy fronds or flower petals at each corner—elements of a design repertoire that had been forged in the Abbasid empire, had made its way to China, and was now traveling back, resplendently adorning Chinese ewers, jars, boxes, and dishes (Figures 15–17). What was fashionable in the West was embraced by the East in cultivating markets and tastes internationally for the beautiful and the unique.\(^47\)

The potters of the Gongxian kilns in Henan province, like their northern Xing and Ding counterparts, also made white stoneware, but the coarser and impure, off-white clays of their region produced stoneware with darker bodies which needed to be covered first with a thick white slip, often applied in layers and more than once, then coated with a clear glaze. Such slip-covered Gongxian wares were more heavily potted and were fired

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\(^47\) Hsieh suggests that white-glazed ceramics that are painted green appear in China largely in tombs found in Henan province, Anhui province, and Shanxi ("White Ware" 162, 163, 171). Concluding that these bi-colored wares were otherwise manufactured for export, he points to how a large jar in the Shipwreck, "with combined lozenge and dragon design . . . is an excellent example of how traditional Chinese designs merged with new decorative patterns" ("White Ware," 167). Green-splashed drinking cups with tubes or "straws" for drawing up wine through the nose may have been a Chinese habit that was successfully exported to the Near East, since fragments of "nose-drinking" cups have been unearthed in Samarra, the Abbasid Empire’s capital for much of the ninth century (Hsieh, "White Ware with Green Décor," in Krahl et al., 174).
at lower temperatures than their majestic, pure-white, delicate cousins from the Xing and Ding kilns.

At their best, Gongxian creations were a beautiful, creamy ivory in color, but the potters—perhaps seeking innovation and originality, rather than mere imitation of their northern Chinese counterparts—decided to embellish their ceramics with green splashes and daubs, thus creating the playful, bi-colored, green-splashed ceramics so highly prized in the Middle East, especially by royalty and court elites.48 Their production peaked in the ninth and tenth centuries, and the dramatic ceramics—with a dappling so suggestive of liveliness and spontaneity—have been found in the Abbasid empire at Samarra in Iraq, the capital founded in 835, and at Siraf, Susa, and Nishapur in Iran.49 Impressively, the Belitung cargo features “the largest finding of green-splashed white wares yet recorded, some 200 pieces” of this select, high-value item.50

Such distinctive imports were prized acquisitions, so of course they were widely imitated by Middle Eastern kilns, which experimented with variations, often adding

48. Regina Krah1 concludes that “[t]he ones from the wreck are well made, although the potting is somewhat clumsy and the shapes can be warped” ("White Wares," 206). She adds: “it is noteworthy that only the Gongxian kilns thought fit to embellish their monochrome wares with color. By decorating their ceramics with intense green splashes or bright blue designs, they may have tried to escape . . . comparison [with Xing and Ding kilns] and to create more desirable alternatives, especially for the export market” ("White Wares," 207).

49. “[W]hite wares with green décor and green wares [i.e., celadon-colored Yue wares] excavated from Samarra in Iraq have been discovered only among the remains of the grand palace and the inner palace complex, which underlines the degree to which these wares were treasured. The eleventh-century Iranian historian Bayhaqi (995–1077) records that during the reign of Caliph Harun al-Rashid (786–809), the governor of Khorasan ‘Ali ibn ‘Isa, once made tribute to the caliph of 2,000 pieces of exquisite porcelain. Bayhaqi further notes that these wares included twenty (the Russian translation mentions 100) previously unseen pieces of “imperial Chinaware”” (Hsieh, "White Ware," 175).

fig. 16. Green-splashed large lidded box with West Asian lozenge motif, from the Gongxian kilns, at the Asian Civilisations Museum, Singapore.

inscriptions.  

Survivals from Iran and Iraq show that local kilns used materials appropriate to their own low-firing temperatures, then used white tin glazes to simulate the appearance of the ceramics created at Chinese kilns, which fired at higher temperatures.

As we work to recover object biographies from creations made over a millennium ago, one of the few things of which we can be certain is that artisans do not bother to copy, adapt, or attempt innovations of objects that have no prestige or value locally. The very existence of local adaptations of China’s green-splashed wares speaks of a lively market demand, both for Chinese artistry, and for local artistry that copied and adapted the originals, thus underscoring the dynamism and liveliness of international artistic exchange in the Global Middle Ages.

But the most extraordinary objects to sketch for us the nature of trans-global relations in the art and artistry of the ninth-century world are three blue-on-white dishes that have survived in the dhaw’s cargo. Everyone today, of course, is familiar with China’s blue-and-white pottery and porcelain, which have been apotheosized in literature, copied, and avidly collected and sold around the world for centuries as China’s most famous and most celebrated ceramics. These three modest-looking dishes, however, are the first and only intact blue-and-whites found this early in Chinese manufacture, and they tell their own story of early globality.

51. Chong and Murphy, 118. “The [Chinese] makers of these wares increased their appeal to West Asian customers by copying a lozenge-and-foliage motif from Iraqi pottery; this design, incised into dishes and other shapes, has been found on Chinese-made green-splashed wares at Samarra but only very rarely in China itself. . . . Iraqi craftsmen repaid the compliment by copying these pieces, as further fragments of Abbasid green-and-white wares uncovered at Samarra demonstrate” (Krahl, “Chinese Ceramics,” 65). This round-the-world circuit of artistic imitation and exchange is one of the more dynamic stories of the Global Middle Ages.

It goes like this. Fine Chinese white wares were admired and prized all over the world. Made from the naturally occurring pure white clays of northern China, potted thinly, and fired at high temperatures above 1200 degrees Celsius, these exquisite creations had delicate and precise shapes, an all-over evenly smooth surface, and a pure, snow-white color. They were then enveloped in the thinnest coat of clear glaze to display their simple, dazzling beauty (Figure 18). Regina Krah话说 they were akin to porcelain, and could reach a porcelaneous state when fired at high temperatures of up to 1360 degrees Celsius. These “thinly potted, snow-white ceramics with sparkling colorless glazes, at times [reached] the level of true porcelain. Porcelain and stone wares are closely related—so closely, in fact, that the Chinese language does not distinguish at all between the two. In the West, the term ‘porcelain’ is reserved for ceramics that are white, translucent, and resonant and are fired at temperatures above 1,300 degrees Celsius, while stone wares can lack these characteristics and are fired above 1,200 degrees Celsius. In practice, there is no distinct dividing line between the two but a smooth transition, and the difference is not necessarily apparent to the naked eye” (Krah话说, “White Wares,” 201).

34 JOURNAL OF MEDIEVAL WORLDS MARCH 2019
Xing kilns had been creating these delicate white beauties since the fifth century, and they were tributary gifts—as functional as they were beautiful—to the Chinese imperial court. These were exclusive, prized objects: “Neither Xing nor Ding white wares seem to have been made in great quantities” in the centuries of the Tang dynasty, and, as we have seen, they are only represented in the Belitung cargo in small numbers.


58. Local obstacles to be surmounted demanded imagination and skill: “Neither the essential raw material (white kaolin clay) nor the kiln technology for replicating Chinese high-fired white porcelain or stoneware was locally available. The finest clay of Iraq was low firing and yellowish in color, as if molded from an egg yolk (muhh bayy) . . . [so] Iraqi potters focused on achieving the visual effect of the Chinese original. They . . . invented an opaque white glaze capable of completely disguising the yellowish clay—an ingenious substitute for Chinese pottery’s integral whiteness. The new Iraqi glaze recipe, which combined lead (as a flux) and tin (as an opacifying agent), was the antecedent of the medieval and modern European ‘tin glaze’” (Hallett, “Pearl Cups,” 76–77).
garlands, quatrefoil panels, and Arabic writing—which produced the happy result of highly attractive Middle Eastern blue-on-whites (Figure 19 is an example). 59

“Proud of their creations and wishing to identify their origins, the Iraqi potters signed some of their pieces”—names such as Muhammad, Ahmad, and Omar thus survive, and remember for us the individuals who devised the Iraqi innovations. 60 Lapis Lazuli was a prized gemstone in the Middle East, and the cobalt designs approximated lapis beautifully. 61 “Cobalt blue painting,” Jessica Hallett concludes, “appears to be an independent initiative of Basran potters.” 62 Desire for the exquisite white wares of China thus led Basran potters to “three great technological advances of the ninth century—the invention of...”

59. Krahl, “Green, White, and Blue-and-White,” 83. “The potters’ first choice was an intense cobalt blue pigment, which offered a dramatic contrast to the white-glazed background; this was the first experiment with the now-familiar concept of “blue-on-white,” undertaken sometime in the first quarter of the ninth century... Many design elements of the early cobalt, blue-painted wares reflect the natural landscape of southern Iraq and the rich flora and fauna of its extensive wet marshes, fertile meadows, and date palm groves” (Hallett, “Pearl Cups,” 77–78).

60. Hallett, “Pearl Cups,” 77. Hallett suggests that “Their signatures on the blue-on-white bowls imply that they were literate, and at least one of them may have been the descendant of an eighth-century poet” (79). That the innovations took place at Basra is logical: “recent scientific analysis of the clay used to make the ceramics has confirmed that production was based in the port town of Basra, precisely the same place where the first Chinese ceramics were off-loaded from Near Eastern trading ships, such as the one found near Belitung. Located on the edge of the southern Iraqi desert and the banks of the Shatt al-Arab, Basra was uniquely positioned to serve as a ‘port of the sea, an emporium of the land, and a place of manufacture.’ All the major land, sea, and river routes of Iraq converge at its gates” (79).

61. “Even though painted lines were generally somewhat thick and fuzzy, since the pigment tended to diffuse into the transparent glaze over which it was applied, the cobalt used in Mesopotamia yielded a clear and bright color. It soon became one of the favored pigments for decorating ceramics in the Near East” (Krahl, “Tang Blue-and-White,” in Krahl, et al., 209).

an opaque white glaze, painting in cobalt blue, and the overglaze luster technique," all of which "shaped Islamic as well as Asian and European ceramic traditions for centuries."  

With world-traveling ships and caravans transporting news as well as cargos, ideas and techniques from faraway lands also arrive, especially if they have devolved a market demand. Chinese artists began to respond by experimenting with blue-on-white pottery of their own. Gongxian ceramicists had been creating white wares (of a lower quality than Xing and Ding kilns) for centuries, and now they added blue motifs copied from Abbasid empire designs, also using cobalt sourced from the Abbasid empire. Our three Chinese dishes, measuring 18 cm to 23.7 cm, thus display cobalt-blue motifs of lozenges and palmettes, mimicking Middle Eastern dishes that mimicked Chinese dishes (Figure 20).

We thus have a miniaturized story of a circuit of desire that moved premodern art around the world, transacting with ideas, techniques, and materials, in a dynamic of experiment-and-response. Artists in Iraq had seen or heard of Chinese white wares, which they imitated; in the process, by transforming local constraints into strengths, they accomplished an inspired innovation. Artists in China, who had seen or heard of this exciting innovation, answered their Middle Eastern counterparts by imitating them, copying the design repertoire of the Middle East with imported Middle Eastern cobalt, and accomplished an innovation of their own: the first Chinese blue-and-white ceramics, 400 years early.

New, hybridized art—a mélange or métissage of eastern and western styles, techniques, materials—was thus the outcome of a creative call-and-response, powered by desire, in the West and in the East, for ideas and the techniques of the other. These three small dishes are

63. Halbert, "Pearl Cups," 81. "The widespread distribution of the Basran wares in the ninth century was accompanied by a dramatic change in the ceramic landscape. Glazed and painted ceramics began to be made from Spain to Central Asia, a span of more than 8,000 kilometers. While the methods of achieving a white-glazed surface moved swiftly, cobalt blue and luster remained trade secrets of the Basran potters. To the east, at Susa in southern Iran, and at Nishapur and Samarqand in the far northeast, extensive production of wares closely related to those in Iraq arose but with painted decoration in purple and green. A distinctive tradition of pottery painted in thick, colored clay slips against a white background also developed in Iran, resulting in some of the most impressive ceramics ever made in the Islamic world. To the far west, in North Africa and Spain, and eventually in Italy and France, a distinctive family of white-glazed ceramics with green and brown painting emerged, gradually evolving into the Hispano-Moresque style, maiolica, and faience traditions that supplied Europe's luxury ceramics until the eighteenth century" (81).

64. Regina Krahl notes that the Gongxian kilns had been using cobalt blue to make Chinese earthenware tomb furniture with monochrome and polychrome glazes since at least the eighth century. When cultural tastes in funerary furnishings shifted, however, the potters switched to making stoneware for daily life instead, launching an experiment in a Near Eastern design palette for the export market ("Tang Blue-and-White," 210). "The Gongxian potters' angular lozenge motifs and palmettes do not derive from the repertoire of Tang ornamentation, but look like a direct take on the Mesopotamian quatrefoil panels filled with Arabic writing surrounded by leaf fronds. Related lozenge motifs also appear incised on some of the green-splashed wares that were equally made by the Gongxian kilns for the export market" (Krahl, "Tang Blue-and-White," 210).

65. Halbert speculates that merchants in Basra may have served as two-way conduits for ninth-century art, introducing Chinese manufacturing practices to Iraq, by bringing Chinese potters to the port town, or describing to the Basran potters "what they had observed in Chinese workshops. We know from historical sources that Basran merchants were actively involved in long-distance trade, and a considerable number of them were established in ports along the Chinese coast—including Guangzhou, the point of embarkation of the Belitung ship. Indeed, some of these men could have been aboard the Belitung ship" (79).

66. Intriguingly, some of these ideas and techniques might not as yet have been fully understood, or fully mastered, by the Chinese potters. "The Chinese blue-and-white versions display a painting manner most peculiar for a Chinese brush: The lozenge motifs are drawn in a series of consecutive strokes rather than with a continuous line for each side. This could be due to the fact that the cobalt solution sank in so quickly that longer strokes were difficult to achieve, but it could also be a sign
summaries of the sociocultural relationships that webbed the ninth-century world, woven by the desire of artists and artisans for what the distant other could create.

Poignantly, the three dishes are early prototypes, materializing some 400 to 500 years before what art historians consider the true efflorescence of Chinese blue-and-whites—those produced in the Song and Yuan dynasties of the thirteenth- and fourteenth-centuries. The Tang blue-on-whites are as experimental as their Middle Eastern counterparts, and art historians have noted the imprecision of the Chinese cobalt work, the bleeding of color, fading, and other imperfections (Figure 20). 67

67. “On one of the three dishes, where the immersion in seawater caused some glaze loss, the blue decoration has largely come off together with the glaze and has left only a faint ghost of the erstwhile design on the white ground” (Krahl, “Tang Blue-and-White,” 210). This puzzles art historians, who believe the blue design to have been applied as an underglaze, because “proper underglaze painting as practiced on Yuan and later Chinese blue-and-white porcelain tends to sink into the unfired body and remain there, even when the glaze is lost” (Krahl, “Tang Blue-and-White,” 210–211). “A possible explanation . . . is that, on the Tang examples, the cobalt may itself have been applied in the form of a glaze—as was used for blue-decorated Gongxian earthenwares—rather than as an undiluted pigment, which would then have left less of an imprint on the body, even if it were applied under the transparent glaze. This would also explain the rather thick application and imprecise designs. Still, the possibility that the cobalt solution on these
Chinese ceramic artistry in blue-and-white wares would go underground for several more centuries, before reemerging to dazzle the world.\textsuperscript{68} Fragments of blue-on-white ceramics have been excavated at Gongxian kilns and in Yangzhou, but the Shipwreck’s three prototypes are our only intact cultural ambassadors from the deep past.\textsuperscript{69} Their makers could hardly have known just how future-oriented their prototypes would turn out to be.

**ENIGMAS OF GOLD AND SILVER: INTERNATIONAL DIPLOMACY IN THE GIFTING OF ROYAL TREASURES?**

One of the mysteries of the Tang Shipwreck, inviting ongoing disagreement, is who the intended recipients of the cargo were supposed to be. The mass-market ceramics arguably point to international markets of consumption that would range far afield with the goods’ dispersal from emporia in Asia, the Near East, and Africa, after their delivery. But this world-traveling ship also contained remarkable treasures that were found quietly ensconced in its stern, away from the mass cargo. A sewn ship of this kind, with a caulked hull and monsoon-driven sails, needed periodic, possibly frequent, refitting at ports-of-call, during which repairs and resupply would be made, and new crewmembers recruited to replace losses along the way.

Extravagant and rare luxury goods on the *dhau*, in the form of sumptuous, intricately incised solid gold tableware and gorgeously ornamented solid silver boxes, were found adjacent to the high-value white and green wares in the stern, hinting at the possibility of a number of destinations and recipients for the cargo along the way home. These recipients may have included political, diplomatic, or economic elites of very high rank.\textsuperscript{71}

\textsuperscript{68} Krahl, “Tang Blue-and-White,” 211.

\textsuperscript{69} Krahl, “Green, White, and Blue-and-White,” 83.


\textsuperscript{71} Given the ship’s need for periodic repair and resupply at ports of call along the maritime routes, François Louis speculates that the location of the precious metal cargo in the *dhau* may be significant: the “group of gold and silver objects discovered at the very bottom of the vessel...may have been hidden [there] deliberately” (“Belitung Shipwreck,” 93). Flecker, who directed the second season of excavation, only says the precious metals were discovered in the ship’s stern—as were the valuable white wares, green wares, green-splashed wares, and the three intact blue-and-white dishes—while the mass Changsha ceramics were stacked in layers and inside large jars in the middle of the ship, extending slightly aft (“Ninth Century,” 110–111).
Scholars are astonished at the supercargo’s sensational precious metal wares: three dishes, three bowls, and a large polygonal cup fashioned of solid gold; a magnificent wine flask of gilt silver; four bowls, two platters, and fourteen boxes of intricately engraved silver; as well as a delicate, intact gold bracelet: a total of twenty-eight magnificent objects of gold and silver, some with unique and original designs (for reasons that will become clear, this tally, for now, excludes the bracelet).

François Louis sums up the amazement of scholars: “Exquisitely manufactured and extremely rare, these objects figure among the most important discoveries of Tang gold and silver ever made. Even more intriguing is that this is the first such discovery outside China.” He adds: “It is difficult to explain why gold and silver objects were on the ship, as no comparable finds exist from the ninth century.” The largest hoard of Tang silver bullion ever found is also part of the cargo—eighteen silver ingots of 99.5% purity. This is the earliest physical evidence for Chinese silver bullion being used for overseas trade, as well as two kilograms of gold foil.

Derek Heng issues a reminder that:

... the production and use of gold articles [in China] ... was very select. Protocols governing the use of gold objects by the Song court in the late tenth century, which by and large were adopted from Tang practices, indicate that such items were markers of prestige used at the highest levels. Gold items had a ceremonial function that was reserved only for the expression of very important political relations, and were therefore prestige items produced and conferred under Chinese royal patronage.

The archeological record, Heng argues, shows that Tang gold objects have only been recovered in three contexts: (1) from China’s imperial tombs, (2) as reliquary objects in edifices of great religious importance, like the Buddhist pagoda of Famen temple in Shaanxi province, and the Mogao caves at Dunhuang, and (3) at foreign royal sites, like the royal tombs of Nara, Japan. Heng therefore, emphasizes the international significance of gifting in gold:

... gold was used during the Tang and Song periods solely in the context of state-level exchanges between the imperial court and foreign trading partners. Even these occurrences were rare, as such gifts were a means of conferring recognition of the status of important states with which China had relations. In fact, China appears to have been a net receiver of gold and gold items in state-level exchanges. Only four instances involving the gifting of gold items have been recorded in Chinese documents.

74. "The gold foil and silver ingots may signal an early version of the precious-metal trade that would become more common in the tenth century and later. At that later time, silver in particular was used by the Chinese government to pay foreign traders in Guangzhou for goods from the south and west. The Chinese silver would then have been traded abroad for its bullion value" (Louis, "Belitung Shipwreck," 86).
Because the ship’s gold is “unique in the context of maritime Asian trade,” Heng speculates that it might have been part of a diplomatic exchange between China and the Middle East, perhaps constituting a formal response to a Persian mission at the Tang imperial court a few years earlier in 824, led by a notable named as Li Susha in Chinese records, who presented the emperor with enough fragrant agarwood to build a pleasure pavilion, the famous Shenxiang pavilion. The luxury wood from Southeast Asia was so precious that something the size of a pavilion is an unthinkable fortune. This costly aromatic wood was only used in small quantities for incense and medicine, not for building a pleasure pavilion; the Chinese record thus registers an extravagant gift of memorable profligacy. As to whom, in the Middle East, or what interests this Li Susha might have represented, the historical record is silent.

François Louis, who like Heng stresses that “gold vessels were markers of ultimate elite status,” and “there is no question that the precious vessels . . . link the ship to the wealthiest members of the ruling elite around 830 [or] the imperial court” notices that the “pervasive imagery on the wreck’s [gold and silver] vessels”—which depict pairs of mandarin ducks, parrots, and flying birds; whimsical animals such as a rhinoceros; intertwining floral motifs, and human, Central Asian faces and figures, including seven musicians and a dancer—“speaks of tying knots, forging links and connections, wishing long life, pairing friends and couples, and exchanging tributary offerings, such as exotic animals and entertainer slaves,” imagery that “amply demonstrates the social function of these precious items.”

Neither Heng nor Louis entertains the possibility that the dhow’s precious gold items might have been mere trade goods being readied for sale in the commercial market, rather than elite gifts meant for the highest level of international gifting. The scholars differ only in minor respects, with Louis speculating that perhaps Li Susha himself, given his apparent mega-wealth, had equipped the dhow with the extravagant gold and silver, possibly “to give the supercargo the means to ease trade in Southeast Asia”—presumably by impressing royal courts in the region with the splendor of the gifts.

Intriguingly, in favor of Louis’s speculations, a pair of square gold dishes bear a swastika motif, which may have appealed to the Buddhist Sailendra dynasty that ruled Java at the time (Figure 2.1). The sheer uniqueness of a swastika motif depicted on precious gold dishes like these is underscored by Qi Dongfang, professor of archeology at Beijing University, who emphasizes that the swastika . . . an auspicious symbol in Buddhist art . . . is featured on a small number of Tang dynasty bronze mirrors . . . the Tang Shipwreck marks the first archaeological excavation to uncover gold and silver relics featuring this design. The design on the

82. “In the late eighth century, the Sailendra dynasty came to power in Java. Java under the Sailendras was known in China as one of the richest countries in the world, along with the Arabs. The Sailendras were strong supporters of Buddhism, a characteristic which enabled Java to join the network of Buddhist ports and travelers which included China and India” (John N. Miksic, “Sinbad, Shipwrecks, and Singapore,” in Chong and Murphy, 224).
square gold dishes is unique. Its combined motif of broad leaves and a swastika symbol is uncommon in traditional Tang design, which may suggest that it was specially made for export overseas.

Swastika motifs, Professor Qi indicates, are not found on Tang gold objects anywhere else; and a swastika surrounded by leaves—the precise design adorning this pair of square-shaped dishes—is unique, possibly indicating the dishes were specially made for a very particular overseas destination or occasion. Indeed, the swastika motifs incised on these square gold dishes are themselves made up of broad leaves—they are actually foliage that is shaped into swastikas (see Figure 21).

In support of Buddhist Sailendra Java as a possible destination are also a pair of oval-shaped, lobed gold bowls, each beautifully decorated with a pair of frolicking mandarin ducks facing each other and surrounded by flowers (Figure 22). Paired ducks of this kind are a common Chinese motif iconizing marital bliss. Thus when we set together the uncommon iconography on gold dishes sporting leafy swastikas surrounded by foliage, alongside the entirely common iconography sported by the golden bowls, the prospect is raised that this set of gold tableware might have been intended as wedding gifts to wish happiness upon a nuptial couple—recently wedded or soon-to-wed—in an elite, Buddhist

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83. Qi, “Gold and Silver,” 186.
cultural setting such as that of a royal court situated in the lush, leafy tropics, since gold was not lightly gifted by China.\(^84\)

By a happy coincidence, the historic royal marriage of Princess Pramodhawardhani, daughter of the Sailendra Buddhist king Samaratungga, to Raka i Pikatan of the Sanjaya dynasty, around 832, has been historically interpreted as an effort to secure peace, and cement Buddhist rule in Java by uniting the Buddhist Sailendra and Hindu Sanjaya dynasties. Might the *dhow*’s extraordinary set of golden tableware have been intended as marriage gifts for this royal couple?

The fact that the *dhow* was mysteriously off-the-beaten-track when it sank has been commented on repeatedly by archeologists and historians alike. Curiously, this ship was not plying the common maritime route in Southeast Asia for a carrier heading westward toward the Persian Gulf and Arabian Peninsula—that is, rounding the Johor straits, with Singapore on its port side and the Malay peninsula on its starboard (with perhaps a stopover for outfitting or trade in northern Sumatra, where the Sri Vijaya dynasty was the reigning power, or, equally likely, at *Kalab*, a common stopover port, according to Buzurg and Abu Zayd, and identified by historians as likely to be Kedah, on the west coast of the

84. The swastika designs in this “pictorial puzzle,” as Dr. Kan Shui pointed out in a conversation—she reminds us that *swastika*, in Chinese, is *wan*, a character that denotes 10,000, a numerical plenitude and abundance that can mean 10,000 years, or a very, very long time—are likely there to signal a wish of continuity in perpetuity, summoning the idea of something that will last forever.
Malay peninsula), but seemed strangely off-track. The ship was found significantly south-east of where it should have been.

Theories abound as to why the dhow sank so far off the common route: was it blown off-course by a storm and lost its way? Did it lack a knowledgeable Southeast Asian pilot (which seems improbable, given cargo investments of this magnitude)? Or was it headed toward an unknown, off-route destination?

John Miksic, professor of Southeast Asian archeology at the National University of Singapore, and Geok Yian Goh, associate professor of history at Nanyang Technological University, suggest that the Belitung ship was not off-course, but right on track in its journey because its destination (or, at least, one of its destinations) was, in fact, Java. Citing the immense trove on board—a diverse cargo ranging from mass-manufactured stoneware to exquisitely fine white and green ceramics to astonishingly crafted gold and silver objects—Miksic and Goh, against the grain, dismiss as “highly unlikely” the near-consensus of a Middle Eastern final destination.

The combination of quantity and quality of the artifacts in the site is unprecedented for a site of this period. It is improbable that the ship was engaged in a common trading voyage. This was the period of the Javanese Sailendra kingdom, which built major Buddhist monuments such as Borobudur. Chinese monks had been visiting Java for centuries. Java sent six embassies to China between 813 and 839. A ship sent to Java bearing diplomatic gifts in response to a Javanese mission to China would have carried objects of immense value. It is also possible that the ship was going to two different places, such as Java and then Oman. 85

If Java as the sole destination for a massive super-trove of 65,000 mass-produced ceramics strikes anyone as improbable, the island kingdom is also raised as a possible destination by Louis, who however does not dispute the scholarly hypothesis of an ultimate Middle Eastern destination for the ship:

It is . . . possible that the elegant gold and silver items on the Tang Shipwreck were needed to establish trade negotiations on foreign shores. The ship's high-value cargo would have been subject to taxation and trade regulations by local rulers no matter where the ship decided to dock. . . . Trade at an Indonesian port would have been a given for the ship . . . . The ship may have been headed for a port in Sumatra or, judging by the location of the wreck, more likely a port in Java, a flourishing cultural centre during the ninth century when Borobudur, the Buddhist temple monument, had just been completed. 86

An extraordinary polygonal drinking cup that forms the centerpiece of the precious gold tableware—it is perhaps the key item of the shining seven-piece array—may shed additional light (Figure 2.3). 87. This magnificent specimen, one of the largest, heaviest, and most splendid

87. “Most surviving Tang metal cups are of bronze or silver and occasionally gilded. The Belitung cup is . . . remarkably large and heavy compared to other known examples” (Louis, “Belitung Shipwreck,” 93). “Cups similar to this one had been made a hundred years or so earlier for the imperial family: three examples have been found in a cache of precious metal objects at Hejiaacun (Hejia village), within the territory of the Tang capital at Chang’an” (Louis, “Belitung Shipwreck,” 93). Chong and Murphy point to one of these excavated gold cups now housed at the Shaanxi Provincial Museum (190–1).
ever found, though not the only one, has eight panels with lively depictions of musicians and a dancer, whose curly hair and billowing clothing identify them as Central Asian. The ring handle of the cup sports a Janus-like pair of heavily bearded faces that are also clearly foreign, not Chinese.

The iconography on this cup has multiple kinds of expressiveness. This luxury item might well appeal to Near Eastern and Central Asian tastes, which it perhaps flatters through direct cultural portrayal. Or, it may attest to Chinese court appreciation of foreign entertainers, an appreciation which the giver(s) wished to share with the recipient(s). Or, we may suspect this cup might be a cultural ambassador that compliments the revelry at a royal court where foreign entertainer slaves or servitors, like those depicted on the cup, may already be furnishing pleasure and delight for the cup’s intended recipients. Sipping wine from such a cup, which portrays exotic entertainers performing, when you are in a court where exotic entertainers are in fact performing, surely would enhance and intensify the recipients’ pleasure, and reflect well on the thoughtfulness of the givers.

Fortuitously, if we read the array of precious gold and silver objects as a whole—say, as a set of diplomatic marriage gifts collected for a royal couple at the Sailendra court in tropical Java—we would then have, for a working hypothesis, a context in which to consider the collective meaning of their iconography. What might a working hypothesis of that sort show us?

88. Schafer emphasizes that “Central Asiatic harpers and dancers were enormously popular in Chinese cities” (The Gold Peaches of Samarkand: A Study of Tang Exotics [Berkeley: University of California Press, 1962], 23), where “an exotically handsome Western girl, a Tocharian or Sogdian say,” capable of “sweet singing and seductive dancing to the accompaniment of the flutes of Western boys”—including “green-eyed beauties, some golden-haired”—might be found (21). “For many centuries the music of the West had had its admirers in China” (51), but under the Tang “there was a real vogue for it” and “foreign orchestras . . . were required to perform for courtiers and vassals in ‘informal’ palace entertainments” (51). “Many of these entertainers were brought as gifts from distant kings” but “Most admired of all the performers imported from Central Asia were the dancers, young boys and girls” (54–55). “Vigorous dances”—no doubt involving the kind of billowing garb depicted on the gold cup—had the greatest popularity (55).

89. “Applied to each face of the cup is a human figure, one dancer and seven musicians carrying a variety of wind, stringed, and percussion instruments. They are identified as Central Asian by their long hair and flowing drapery. These hu (foreign) entertainers were popular in Tang China at the time of the wreck. The cup’s ring-handle, with its thumb-plate decorated with back-to-back bearded heads also reflects the influence of Central Asian silverware on Chinese metalwork shapes” (Louis, “Belitung Shipwreck,” 95).
Several silver objects and the set of golden bowls depict pairs of mandarin ducks, parrots, geese, and other birds that face each other intimately, or gaze back at each other. In Chinese symbolism, bird pairings of this kind denote devotion, affection, fidelity, or lifelong partnering. Mandarin ducks in particular—who are known to mate for life—augur marital bliss. The ornate decoration of the magnificent gilt silver wine flask, 38 cm high, with a lid and handle—this is the only known silver wine flask dating to the Tang era—also features a loving pair of mandarin ducks, charmingly enclosed within a double-arched central frame (Figure 24).

Several exquisite silver boxes—for storing spices and aromatics, cosmetics, incense, or medicines—also depict paired birds or paired animals, and insects like cicadas, which augur longevity (Figures 25 and 26). One partly gilded silver bowl has a whimsical and rare beast, a rhinoceros, at its center—an animal also found on items in a Tang dynasty tomb at the imperial capital of Luoyang, the rhinoceros being an animal that was thought to appear at times of good governance (Figure 27).

Read as a whole, then—as a gorgeous set of diplomatic gifts bestowed at the highest levels, like an elaborate rebus from the Chinese court—we may see the iconography of the gold and silver array as proffering to the royal court couple of Java: warm wishes for a blissful marital life, and longevity, repeated many times; a flattering compliment of good governance; reverence for the Sailendra dynasty’s Buddhist faith; a mutual understanding of the pleasures of exotic

90. Avian pairs are not the only Chinese animal motifs for depicting marital well-being: “Paired fish, a Buddhist symbol, became a popular Chinese motif representing marital harmony” too (Krahl, “Chinese Ceramics,” 69). Intriguingly, among the prized celadon green Yue ceramics on the dhow is a bottle in the form of a pair of fish whose open mouths together cunningly converge to form the mouth of the bottle itself. The bottle has lugs and incised details, and perhaps may be yet another messenger to bring good wishes to a nuptial couple (Krahl et al. 69, Figure 55).

91. Chong and Murphy, The Tang Shipwreck, 188.
entertainment; a generous sharing of beautiful, precious boxes for storing aromatics, spices, cosmetics, fragrances, and medicines that royal elites enjoy; and an expression of pleasure that such elites take in their luxury tableware, with gold and silver dishes, bowls, and platters for dining, and vessels for holding and sipping wine.

92. It is possible that some of the exquisite white Xing/Ding and green Yue table wares (including the celadon bottle with the fish pair denoting marital harmony?) may also have been destined for the Sailendra court’s pleasure. We remember that some of the mass-market Changsha bowls also have Buddhist motifs in the form of swastikas and stupas. In addition to the precious metal wares, moreover, twenty-nine bronze mirrors were also recovered from the cargo—once silvery bright and highly reflective—including two very special mirrors: one, an antique dating from the Han era (206 BCE–220 CE), and the
We could then see the glorious array as an exquisite, thoughtful, and extravagant way—as François Louis puts it—to signal a desire to forge links and connections, tie knots, wish long life, pair friends and couples, and exchange tributary offerings such as exotic animals and entertainers.

Louis and Miksic remind us that it is not fanciful for China to value good relations with the Javanese court. Java was a flourishing cultural center in early ninth-century Southeast Asia, and Borobudur, that famous Buddhist monument, whose construction had begun around 760, was completed by around 830. Moreover, Chinese records of foreign embassies to the Tang lists an embassy, to quote Louis, “that arrived . . . between 826 and 831. It came from Shepo, a place most scholars believe to be Java, and reached the capital on 24 February 831. Its ambassador, Li Nanhulu, returned with another trade mission in March 839.” Like Miksic and Goh, Louis remarks the six Javanese embassies to China:

Between 813 and 839, Shepo sent no fewer than six embassies to Chang’an [the-then Tang capital]. In 813 it presented the . . . Emperor . . . with four dark-skinned slave children, five colored parrots and other exotic birds, as well as all kinds of incense. Subsequent missions offered two highly-prized dark-skinned slave girls, tortoise shells, and a live rhinoceros. other, a never-before-seen Tang mirror whose inscription identifies it as one of the famed, legendary specimens cast on the Yangtze river in Yangzhou (Louis, “Tang Shipwreck,” 210). Special mirrors like these may well also have formed part of the marriage gifts.

“Perhaps,” Louis hazards, the gold and silver items were “intended . . . as gifts in return for tribute presented . . . to the Tang emperor” and “the Belitung gold and silver vessels might in that case be regarded as reciprocation . . . from the Jingzong or Wenzong court to a foreign mission.”

Intriguingly, Edward Schafer notes that the “Tamed rhinoceroses . . . [which] came as astonishing royal gifts from the great nations south of China to the T’ang emperor” issued from Java and Sumatra, because rhinoceroses by this time were “now restricted to remote parts of Indonesia, and on the verge of extinction.”98 For the Tang, “performing rhinoceroses were, like performing elephants, exotic marvels” and some, in fact, “performed, along with elephants, in the great palace entertainments of [the Tang emperor] Hsüan Tsung [i.e., Xuanzong].”99

To the Chinese, the rhinoceros was thus “a kind of classical behemoth surviving among the barbarians,” valued for the magic virtue of its horns and associated with Java and Sumatra.100 If the Javanese court had memorably presented the Tang court with a live rhinoceros in 813, perhaps the Chinese court found it auspicious to return a rhinoceros-themed silver platter to Java a decade and a half later.

We might be forgiven for concluding that the dhow’s cargo might thus seem to have been assembled for more than one type of recipients in the great global network where international relationships of many kinds—commercial, artistic, political—were forged. Whether the ship had a number of destinations and a number of recipients for its supercargo, on its way back from China, in the great global outside, is a question that scholars will undoubtedly continue to ask for a long time.101

LIFE ON BOARD, LIVES LOST: HUMAN DEEDS AND DESIRE
ON AN ORDINARY ARAB DHOW

1,200 years after the dhow sank, there survive a miscellany of items from the lives on board that still catch at the imagination with a whiff of their poignancy and whimsy. Beyond the gold plate I have suggested might constitute gifts for a Javanese royal couple, are also two gold bracelets. One consists only of mismatched bracelet ends, while the other is a delicately engraved, intact gold cuff that bears a seam, where the cuff appears to have broken, and where it was subsequently soldered back together (Figure 2.8). The bracelet fragments were probably kept for their weight in gold, but given that someone had taken the trouble to have the break in the bracelet-cuff re-soldered, it is tempting to suspect that this bracelet might have been meant as a personal gift.

98. Schafer, Golden Peaches, 81.
100. Schafer, Golden Peaches, 84.
101. As we have seen, the shipwreck’s curator, Stephen A. Murphy, is among those who proffer likely destinations for the cargo in the Indonesian archipelago and the Middle East. He also enumerates several likely ports of call for the dhow based on the everyday functional objects recovered from life on board, as well as the necessity for periodic stopping points for refitting, resupply, and crew replacements (“Ports of Call”).

Heng | An Ordinary Ship and Its Stories of Early Globalism 49
Damaged and repaired goods do not make good trade goods, nor would one wish to offer less-than-perfect gifts to a royal princess or queen, whom one would not want to offend with visibly damaged and repaired goods. So, I like to think that someone on the ship—perhaps a traveling scholar who was making a journey (perhaps an early Ibn Battuta—an engraved inkstone, and a paper weight have also been found among the recovered items)—or a merchant accompanying a consignment, or a diplomat escorting the precious gold and silver items, or the captain himself, or some other traveler, might have been saving the bracelet as a homecoming gift for his beloved.

Among the utilitarian objects recovered—like tweezers, a scale bar, scale weights, cooking utensils, a lantern, lead weights for ballast—are also two whimsical objects, a ceramic whistle shaped like a fat bird, and a small, charming ceramic dog (Figures 29 and 30). These were not rare specialty items, or especially valuable, or even favored in the export market, and may have been the personal keepsakes, we may like to think, of that traveler, or toys he was bringing back as gifts for a favorite child—a traveler who, sadly, did not arrive home after all. Alas, the hazards and disasters bedeviling long-distance maritime journeys between termini on the Gulf coast and in China are more than amply documented by shipmasters like Buzurg ibn Shahriyar and merchants like Sulayman al-Tajir.

J. Keith Wilson and Michael Flecker believe there may have been Chinese passengers on board, though likely not serving as crew:

102. Though “Changsha kilns . . . produced a delightful array of entertaining pieces, such as toys in the form of dogs, pigs, human figures, lions and lion riders, horsemen, bulls’ heads, birds, and so forth . . . Only two such pieces were found on the wreck” (Liu, “Tang Dynasty,” 150). Liu adds: “such works were evidently not favored by the exporters” (147). It seems unlikely, therefore, that the two “toys” on board ship were intended as trade goods rather than personal keepsakes. Liu reminds us that Changsha kilns also made “cultural implements for scholars’ desks,” including implements for grinding ink, and paperweights (150). An engraved inkstone is among the dhows’ recovered items, and the small ceramic dog, sitting on a flat base, is believed to be a paperweight.

The wreck contained a number of Chinese-made items besides the cargo. These elegant objects include plain bronze spoons, complete and fragmentary gold bracelets, and pieces of a lacquer dish, red on top and black beneath. An inkstone incised with an insect...must have been brought on board by a literate Chinese traveler; a stick of ink would have been ground on the smooth surface with some water, the resulting liquid collecting in the well. These rare survivals from the Tang all suggest an important Chinese presence on the ship.104

Observing these items, Flecker believes “there is a reasonable chance that at least one Chinese merchant embarked on the voyage and took his personal possessions with him.”105 Whether the items of Chinese origin indicate the prestige and popularity of Chinese goods or the actual presence of someone from China, the crew of the ship itself, scholars agree, would have been multiracial, multicultural, and multi-religious, recruited from all the known ports of the global maritime route and very likely of Middle Eastern, South Asian, and Southeast Asian origins.

We are unable, of course, to retrieve individual identities, but the objects the crew used and left behind inscribe poignant traces of their lives on board. A hook, and fishing-net weights tell us they fished for food; storage jars and cooking utensils like a mortar and

FIGURE 30. Ceramic dog paperweight, from the Changsha kilns, at the Asian Civilisations Museum, Singapore.

pestle, a grater, a grindstone and roller (of a type known in Southeast Asia), and kettles show us they cooked. They also very likely prayed, and may have undertaken propitiatory rituals to safeguard their journey:

Small pieces of amber and benzoin found on the ship were probably left over from burnt offerings made to ensure a safe passage... Benzoin resin, tapped from a tree found most famously in Sumatra and Java (the Arabs called it luban jawi, “Javanese frankincense”), was used as incense in Buddhist temples. 106

A needle indicates they made necessary repairs to the sails and perhaps to their fishing nets, and a tiny die made of bone, and four ivory game pieces shaped like acorns, intimate to us that they played games of chance or skill to while away the time. 107 Someone had a Chinese cymbal on board, perhaps for singing or storytelling. Canarium seeds and nuts attest to a fondness for chewables from Southeast Asia (or from as far away as


107. On the four-month voyage across the Indian Ocean, from Muscat in Oman to Singapore in 2008, that was made by 16 multiracial crewmen and their Arab captain on the Jewel of Muscat—the hand-sewn Arab dhow that was reconstructed from the estimated 20% of the ninth-century dhow that survived—the seamen also whiled away the time (particularly when the ship was becalmed) by playing games (of dominoes), recounting stories, drumming, and singing (Megan Furman, Jewel of Muscat: On the High Seas in a 9th-Century Sailing Ship [Oman: Lingua Franca, 2015], 63, 87, 92, 107). One crewman had a drum, which he played, and singing served not only to pass away the time, but also communally coordinated labor, especially the constant labor that was needed to secure the masts and sails on the ship.

108. The crew of the Jewel also cooked, fished, used up their stores of chewable treats, and dealt with a spectrum of emotions, from awe at the daring of their ninth-century counterparts (“the brave sailors of the ancient world” [Furman, 35]) who only had simple locational tools like the kamal; to boredom, sleeplessness, and homesickness; to terror at the cyclones and the unforgiving storms brought by the monsoon, when they suspected they would die. To gain some understanding of the premodern journey—to the extent that this is ever possible, given contemporary differences—the Jewel was unaccompanied by any air or marine escort, so that the insecurity of sailing on a ship of planks sewn together with coconut fiber never left the crew’s consciousness. Remarkably, although there were accidents and injuries, no seamen were lost—again, an outcome that did not resemble conditions on the premodern dhow.

52 JOURNAL OF MEDIEVAL WORLDS MARCH 2019
Africa.\textsuperscript{109} Medicine may have filled a tiny blue glass bottle from the Middle East, only seven cm high, and date syrup might once have filled the turquoise-colored amphoras from the Abbasid empire on board.

These random survivals offer us only the smallest, most fragmentary glimpses of the travelers’ lives. Looking back in time from the vast distance of 1,200 years later, more optimistic scholars today may hope that some on board the dhow survived when the ship sank. “No human remains were found on the wreck site,” Wilson and Flecker reflect cheerily, so “perhaps all on board had time to escape to the island only a few kilometers away.”\textsuperscript{110} One must, however, needs ask: if there had been survivors, given the extraordinary cargo, is it likely that no stories were told of this treasure for 1,200 years, and none had sought it, until its accidental discovery in 1998?

In the end, who these people were, what gods they prayed to in nights of wind and storm, what favorite tales they told from folklore, or gossip from their last port of call, what songs they liked to sing and games that delighted them, whether their hearts lifted with relief as each new port of call was sighted, and what faces they looked forward to seeing again when they were home at last: like an improbably lucky survival or an untimely death, these remain the secrets of the oceans in the maritime global routes.\textsuperscript{111}

But these peoples of many races, religions, and cultures were the dynamic agents of a rich historical ethnoscape along whose arterial traceries moved not only the material goods that archeologists are able to excavate today, but also the less tangible but no less important parts of culture: ideas, beliefs, news, germs, habits, rituals—that whole unwieldy aggregate of human behavior and human culture that go everywhere that people went, in the Global Middle Ages and today.

\textsuperscript{109} The Canarium seeds and nuts, and a small gold coin from the region, called a piloncito, are among the objects that may point to the presence of Southeast Asians on board: “In the course of such a long voyage, it almost certainly would have been necessary to recruit new crew members, as well as to trade and renew supplies. Someone picked up in a Southeast Asian port may have brought on board the gold piloncito (little coin), an Indonesian type that circulated in the region until the thirteenth century. Meanwhile, the merchants’ transactions may have been facilitated by the copper-alloy weights and scale bar (missing its pans and hanger) found in the wreck: scales of the same type, which are quite different from Chinese examples, are depicted in a carved relief at Borobudur and others have been found on the tenth-century Intan wreck, also discovered in the Java sea” (Wilson and Flecker, “Dating,” 40).

\textsuperscript{110} Wilson and Flecker, “Dating,” 40. The wreck was, in fact, 2 nautical miles offshore. Given its position, and the relatively shallow waters, Flecker marvels that the wreck was not found till only recently: “It lies a mere 4 nautical miles north of the main town and port of Belitung Island, Tanjung Pandan, and less than 2 nautical miles offshore, in position [3 degrees 41 minutes South, and 107 degrees 35 minutes East]. . . . The depth of the site is only 17 meters, with reasonably clear water over a silty sand seabed. The mound was more than a meter above the surrounding seabed level, with several coral conglomerates standing above it. . . . The area is frequented by fishermen and sea-cucumber divers but is clear of commercial shipping due to an extensive reef system. [The reef] Batu Hitam . . . just 150 meters to the north of the wreck site, was more than likely the cause of the loss” (Flecker, “Ninth-Century,” 101).

\textsuperscript{111} Vosmer, in detailing the reconstruction effort required for the building of the Jewel of Muscat, relates a mysterious discovery of human hair found in the rigging of the Belitung ship, and adds grimly: “A thick piece of rope from the wreck had survived more than a thousand years under the sea. Scanning electron microscopy (SEM) done at the University of Massachusetts showed [this rigging] rope to be composed of fibers of manila, cotton, and human hair . . . . Whether the hair was an integral part of the rope or that of a hapless victim of the wreck who perhaps got his hair caught in the rigging is not known” (134). This haunting vision of a possibly horrific moment that took place during the human tragedy of the Belitung shipwreck—and summoned up through the technology of scanning electron microscopy today—is also one of the legacies of the Global Middle Ages.

Heng  An Ordinary Ship and Its Stories of Early Globalism  53