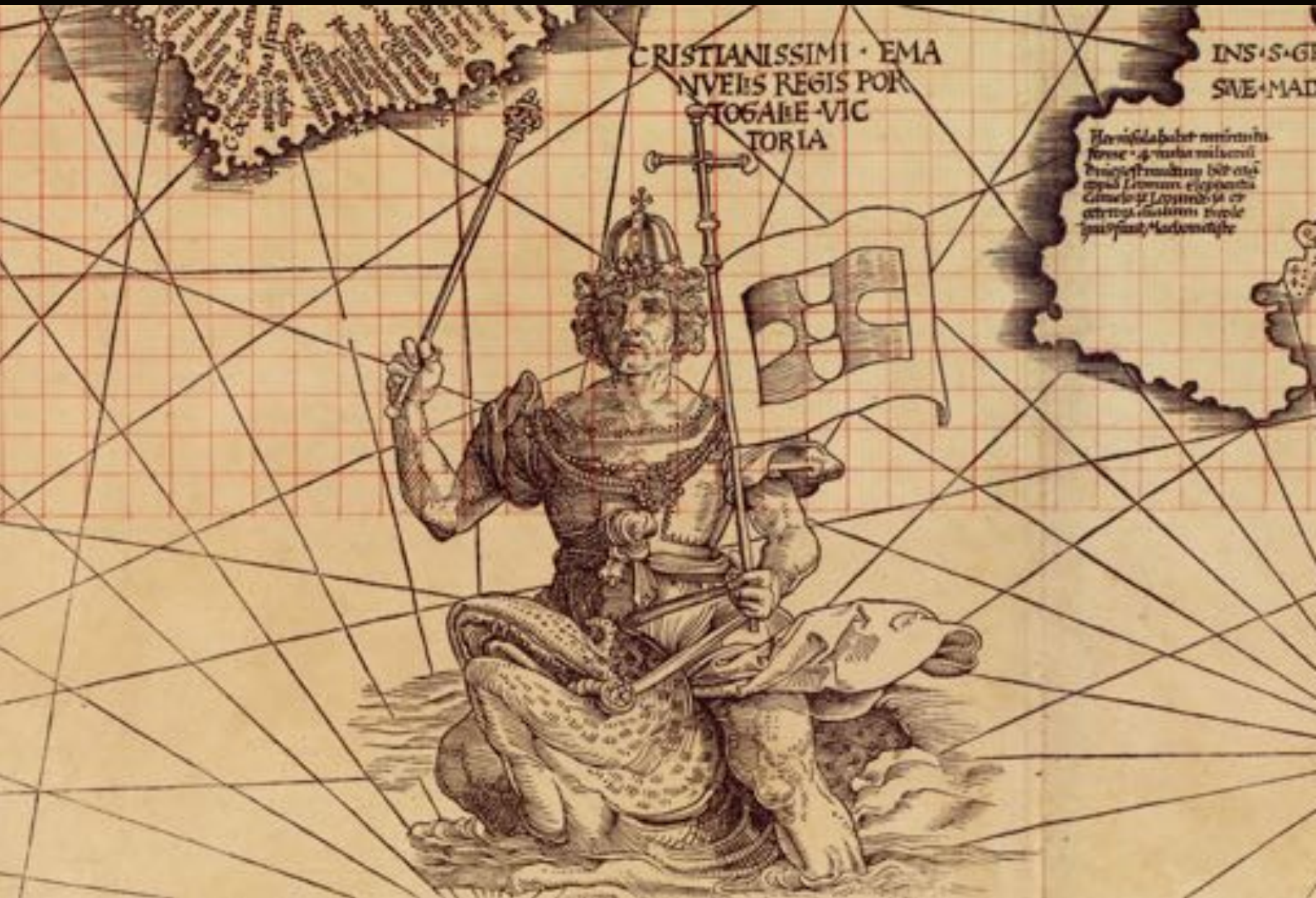


## THE MYSTERIOUS OCEAN:

UNDERWATER KINGDOMS, SEA CREATURES, AND SAINTLY

MIRACLES IN EARLY MODERN SOUTHEAST ASIA AND EUROPE



Barbara Watson Andaya

# THE MYSTERIOUS OCEAN: UNDERWATER KINGDOMS, SEA CREATURES, AND SAINTLY MIRACLES IN EARLY MODERN SOUTHEAST ASIA AND EUROPE

## Barbara Watson Andaya

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Waldseemuller's *Carta Marina*, 1516, South Africa - King Manuel (Library of Congress)

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# The Mysterious Ocean: Underwater Kingdoms, Sea Creatures, and Sainly Miracles in Early Modern Southeast Asia and Europe<sup>1</sup>

Barbara Watson Andaya

## ABSTRACT

*For land-based human beings, what lies under the oceans has long been a source of speculation. This article addresses the relationship between humans, the underwater world, marine creatures and the supernatural. Bringing together information derived from European and Southeast Asian sources, and linking the past to the present, it traces a deeply entrenched belief in the existence of sunken kingdoms, humanoid beings and the powers of large marine creatures. These beliefs provided a framework that easily incorporated the idea of religious figures who demonstrated their mastery of the ocean by extraordinary acts such as walking on water. Fascination with the sea still drives scientific research and infuses popular culture, but the ability to roam freely beneath the ocean or stride across its surface without mechanical devices will remain in the world of wonders and miracles.*

## INTRODUCTION

TO A VERY LARGE DEGREE, the lived experiences of human beings have been determined by two simple facts: in the first place, our physical movement is subject to the forces of gravity, and in the second, we need to inhale oxygen in order to survive. Cultural imaginings have long been preoccupied with the notion that it might be possible to transcend these limitations, to defy our terrestrial existence and fly like birds or cast aside our dependency on respiration to plumb the ocean depths. While global mythology is replete with accounts of miraculous flights across the heavens, or supernatural descents to the bottom of the sea, the notebooks and sketches of Leonardo da Vinci (1452–1519) offer tangible evidence of one individual's efforts to overcome the physical restrictions to which mankind is subject (Pedretti 1978; Laurenza et al., 2006). Histories of flight pay tribute to da Vinci's flying machines as forerunners of modern aeroplanes, but less attention has been accorded to his ideas for devices that would enable humans to walk on water and move freely beneath the surface of the ocean (Pedretti 1978: 55; see Fig. 1).

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<sup>1</sup> This article was originally written for a workshop in February 2017, entitled 'Circulating the Bay of Bengal, Miraculously: Translating Wonder and Travel in Southeast Asia' which was held at the ISEAS–Yusof Ishak Institute in Singapore. I am grateful to Dr. Terenjit Sevea for the invitation, to the then Director Tan Chin Tiong and the Nalanda-Sriwijaya Centre for sponsoring my visit, and to Dr. Chet Van Duzer for assistance with Figure 5.

**Fig. 1:** Leonardo da Vinci walking on water;  
from [https://commons.wikimedia.org/wiki/File:Leonardo\\_walking\\_on\\_water.JPG](https://commons.wikimedia.org/wiki/File:Leonardo_walking_on_water.JPG)



Earthbound, the young Leonardo recorded his own fascination with the ‘oceanic sea’ during a visit to Tuscany in 1480 when he encountered the remains of what was apparently a fossilised whale in the walls of a cave. Gazing at this ‘powerful and once-living instrument’, his imagination took flight as he envisaged a time when ‘terrified shoals of dolphins and big tunny fish were seen to fly from the vehemence of your fury, and lashing with swift branching fins and forked tail you generated instant tempests in the seas, with great buffeting and foundering of ships’ (Kemp 2006: 98–99, 145; Etheridge 2013).

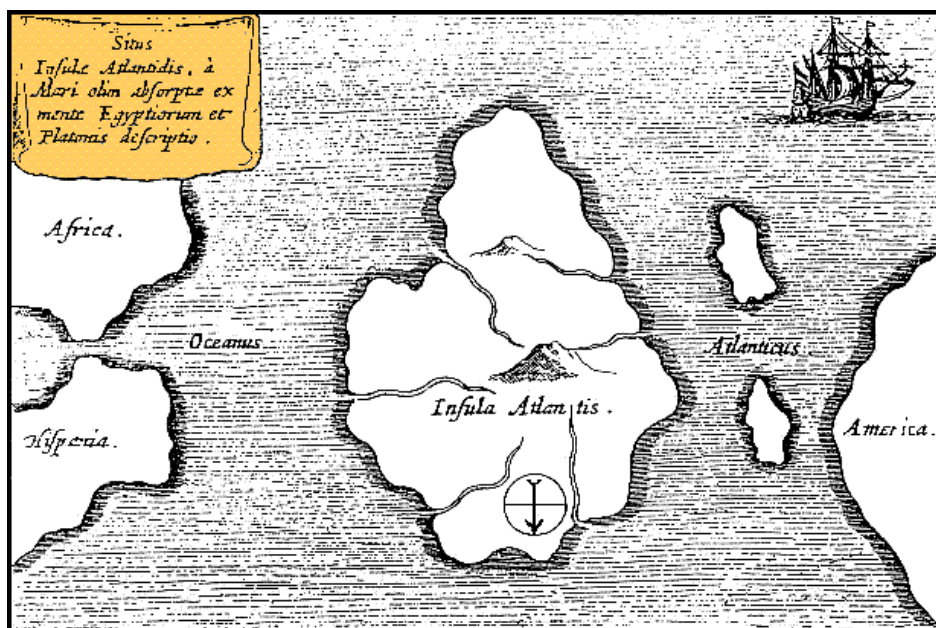
The ferocious fish conjured up in da Vinci’s notebook and its power to cause storms and shipwreck provide a departure point for thinking about the ways in which humans have conceptualised and approached the ambivalence of the ocean environment. While it is impossible to recreate the world of prehistoric navigators and the migrations that reach from Africa to Easter Island, some scholars have argued that we have underestimated the fearlessness and adventurous spirit that motivated these epic voyages (Lewis 1994: 297–299; Mahbubani and Sng 2017: 17). We can only speculate about the ways in which ancient seafarers contemplated the ocean’s vastness, but written sources for later periods show that mariners were always ready to visualise magical domains lying hidden beneath the surface, where sea kings and queens presided in splendour. At the same time, they were haunted by the possibility of encounters with great marine creatures like sharks or whales, or with supernatural beings in human form. Since such encounters could be extraordinarily helpful, or alternatively destructive and even death-dealing, cultivating the goodwill of the ocean’s denizens was a prime consideration. As the world religions were transported across oceans into Southeast Asia, the saintly figures who exemplified their powers by descending beneath the ocean, calming storms or walking across the water

were incorporated into existing seascapes and embraced by sailors as a source of protection and solace (Andaya 2017). Despite the passage of centuries, the mystery of deep-sea waters continues to compel respect, feeding a restless spirit of exploration and experimentation that may be compared to that of the 15th and 16th centuries (Rozwadowski 2008: 217). To date, however, da Vinci's vision of humans who could move as easily across the ocean as they did on land remains intriguing but probably unattainable.

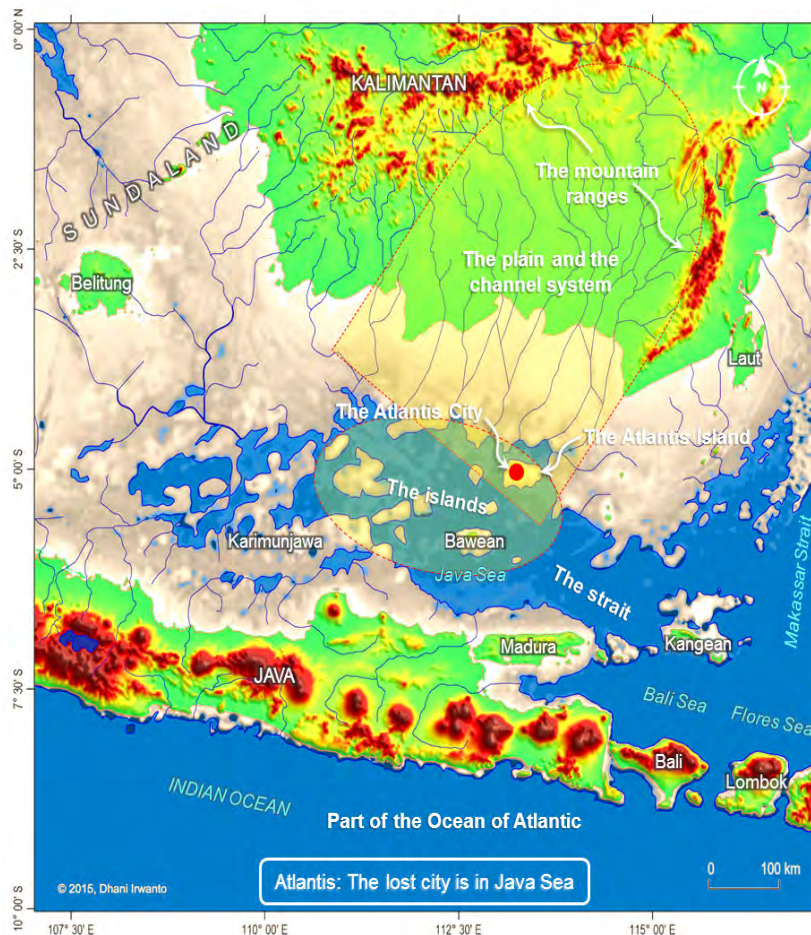
#### UNDERWATER KINGDOMS

The idea that the ocean can engulf whole cities and even civilizations has an enduring hold on the human imagination. In Hindu mythology, for example, there is frequent mention of kingdoms ruled by great serpents (*nāga*), who wielded authority over large rivers, the sea and the treasure-filled primordial ocean. In a similar vein, Tamil literary texts refer to various sunken cities of great splendour and trading wealth. These references were invoked in the 19th century by Tamil revivalists to support the argument that a kingdom located off the coast of southern India, subsequently drowned by the sea, was characterised by social harmony, benevolent governance and prosperity (Williams 2008: 41; Weiss 2009: 89–91). Archaeological discoveries of sunken cities like those recently found in the Nile River have fuelled public attention and generated increasing interest in controversies regarding the existence of undersea kingdoms (Bhatt 2016). Perhaps the most persistent of these controversies can be traced back to the Greek tradition of Atlantis, tellingly memorialised in Plato's 4th century account. The location of the 'lost island' that sank beneath the ocean has given rise to centuries of debate, which has now been accorded its own subfield of Atlantology (Zhirov 2001; Joseph 2005). With speculation given free reign, Atlantis has been identified with places as far afield as Sweden and Cyprus, and a recent Indonesian study even argues that it can reliably be placed in the Java Sea (Irwanto 2015).

**Fig. 2a:** From *Mundus Subterraneus* (Amsterdam; Joannem Janssonium and Elizabeth Weyerstraten, 1665). Athanasius Kircher's map shows Atlantis in the middle of the Atlantic Ocean. The map is oriented so that the south is at the top ([https://commons.wikimedia.org/wiki/File:Athanasius\\_Kircher%27s\\_Atlantis.gif](https://commons.wikimedia.org/wiki/File:Athanasius_Kircher%27s_Atlantis.gif))



**Fig. 2b:** From Dhani Irwanto, *Atlantis: The Lost City is in Java Sea*. Bogor, Indonesia: Hydro media, 2015, Figure 28 (used with permission of the author)



What is distinctive about these underwater realms is their association with a splendour and a beauty that far exceeds that of earthly realms. In 19th century Europe, the fascination with life beneath the ocean, caught up in the literary and artistic preoccupation with the exotic, is exquisitely captured in Mathew Arnold's well-known poem, 'The Forsaken Merman,' and its depiction of a merman's watery kingdom. Here, in a world of 'sand-strewn caverns, cool and deep', palace ceilings were of amber and pavements of pearl, and the merman's mortal wife sat on a 'red-gold throne' surrounded by iridescent lights that quivered and gleamed (Arnold 1849: 103). But we also find that comparable images and a similar fascination with the jewel-studded domains beneath the ocean form a recurring motif in the wider world of cultural legend. The *nāga* serpents of Hindu mythology, for instance, inhabit luxurious palaces studded with rubies and diamonds, while Greeks imagined that the residents of Atlantis decorated themselves with gold, precious stones and pearls (Dey 1883: 220–225; Siribhadra and Moore 1992: 14; Joseph 2005: 47). Such costly gems, however, were far more than ornamentation, for they could be filled with magical power. The Japanese thus believed that the dragon king, who inhabited a place in the deep sea off Okinawa, possessed jewels that could determine the movement of the tides (Andrews 2000: 165).

It seems likely that mariners accepted stories of underwater riches because they so often witnessed what appeared to be the glittering sparkle of gemstones spreading across

the surface of the ocean. Today we know that this phenomenon is caused by a chemical reaction, 'bioluminescence', that occurs when micro-organisms in sea water are disturbed by oxygen. Lacking this scientific explanation, the naturalist George Bennett (1804–93), well acquainted with Southeast Asian waters, was awestruck as he tried to put into words the 'sublime' experience of seeing what appeared to be 'a sea of liquid fire' in the waters off Manila. In the distance the glimmering receded to resemble an 'ocean of milk' and on the horizon the breaking of waves gave out 'a light of inconceivable beauty and brilliancy' (Bennett 1834: 36–37). While Bennett could only reflect on the reasons for this phenomenon 'for as yet no correct judgment has been formed', local chroniclers found their own explanations in legends of underwater kingdoms. Describing the palace of Ratu Kidul, Queen of the Southern Seas, which lay beneath the sea off Java's southern coast, the *Babad Tanah Jawi* thus envisages not only its shining walls of gold and silver, but the glittering light of its jewel-encrusted courtyard (Olthof 1941: 82–83; see Fig. 3).

For most land-dwellers the ability of those human beings who could penetrate, even temporarily, the ocean depths were a source of wonder, since swimming (unlike walking) is a learned skill. Something of the respect Orang Laut swimmers aroused in China is suggested in a 12th century reference to the 'variety of wild men from near the sea which can dive in water without closing the eyes' (Hirth and Rockhill 1911: 32). In a related example, the Malay scribe Munsyi Abdullah recorded his amazement at the aquatic skills of the Orang Laut (sea people) near Singapore: 'they jump into the sea, and dive and disappear from sight for half an hour. They then reappear, one or two hundred *depa* (about 365 metres) from where they jumped' (Sweeney 2006: 364). One can only wonder how these Orang Laut might have responded to accounts of the fantastic domains that were imagined as lying beneath the sea. Like its counterparts on land, Ratu Kidul's palace was said to be surrounded by beautiful gardens, where flowers flourished and fruit trees grew in plenty, and it was peopled by human-like servants and retainers (perhaps drowned sailors) who possessed the ability to survive under water. But favoured mortals might also be granted the same power—and presumably be rendered immune to the kinds of ailments that beset modern divers (Lam 2014). According to Javanese histories, Senopati, the legendary founder of the Javanese kingdom of Mataram, who was taken underwater by Ratu Kidul and spent three surely unforgettable days in her palace, where she instructed him in the arts of war and lovemaking (Olthof 1941: 82).

One of the most detailed accounts of the undersea experience comes from the *Sulalatus Salatin*, 'The Genealogy of Kings', better known as the *Sejarah Melayu* or the 'Malay Annals'. Raja Chulan, whose forebear was Iskandar Zulkarnain (associated with Alexander the Great, also celebrated in legend for his travels beneath the ocean), announces his intention of becoming master of the entire world. However, although he is already familiar with the 'contents' (*isi*) of the earth, he knows nothing of what lies at the depths of the ocean. His craftsmen are therefore ordered to construct a glass box that can be opened and closed from within. The box, with Raja Chulan inside, sinks to the ocean floor. When he emerges, he finds himself in an underwater realm called Dika. Here he marries the king's daughter, and by her has three sons. After a time, however, he becomes restless and is eventually given a winged stallion so that he can return to land (Muhammad 1997: 16–18).

**Fig. 3:** Kanjeng Ratu Kidul, by Gunawan Kartapranata  
 ([https://commons.wikimedia.org/wiki/File:Kanjeng\\_Ratu\\_Kidul.jpg](https://commons.wikimedia.org/wiki/File:Kanjeng_Ratu_Kidul.jpg))



Raja Chulan's reluctance to remain with his underwater wife and family (did they also then feel forsaken, like Arnold's merman?) reminds us of the ambivalence with which land dwellers approached the seas. Both in written text and oral transmission, the supernatural beings that live beneath the ocean can be capricious and easily annoyed. In a Lao version of the *Rāma Jātaka*, for instance, the ruler of the underwater realm of *Pattahhlum*, infuriated by the noise of battle on land, orders the great Rama himself to be abducted and brought below as a prisoner (Sahai 1996: 10). Ratu Kidul, imagined as beautiful but vengeful, is liable to seize humans who have aroused her anger and take them to be her underwater servants. Though her court is located beneath the waves off the Javanese beach of Parang Tritis, her influence extends into landed society, for she is mistress of the cliffs along the southern coast where birds' nests are collected. She should be propitiated by those who enter her domain and before harvesting takes place the appropriate offerings



should be made (Carlier 1853; Florida 1992; Schlehe 1993: 321). If this is not done, men may meet their death as they search the dark cave ledges many metres from the ground, for those who rule the sea are not necessarily kind and the ocean floor is itself a graveyard for untold numbers of victims.

#### MARINE CREATURES

Legends of underwater kingdoms also served to fuel human imaginings of a fantasy world of weird and wonderful sea creatures, a world marvellously captured in Europe through medieval and Renaissance cartography (Van Duzer 2013; Nigg 2014). We are reminded of the age-old belief that the sea is not only the domain of semi-human beings who, unlike ordinary mortals, can survive under the water; it is also a realm where sea creatures, unfettered by obstacles like mountains or deserts, can move across vast distances. It was possible to imagine that some of these marine beings could even traverse the entire ocean-linked globe, like the 'great whales' who 'come sailing by/Sail and sail, with unshut eye/Round the world for ever and aye' (Arnold 1849:103). Indeed, something of this conceptualisation infuses an early 16th century depiction of King Manuel of Portugal riding a sea creature around the horn of Africa, dramatically symbolising Portuguese ambitions to dominate maritime trade routes (Waters 2013).

Fig. 4: Various sea monsters, from Olaus Magnus's *Carta Marina*. Basel c. 1544 CE  
([https://en.wikipedia.org/wiki/Sea\\_monster#/media/File:M%C3%BCnster\\_Thier\\_2.jpg](https://en.wikipedia.org/wiki/Sea_monster#/media/File:M%C3%BCnster_Thier_2.jpg))





societies whales figure prominently in creation myths and as tribal ancestors, while communities living along the seasonal migratory routes that led from eastern Indonesia along the coast of Vietnam and up to Japan also accorded whales a unique cultural space (Andersen 1995; Andaya 2017). On the island of Lembata (eastern Indonesia), the skulls of whales were once stored in sacred buildings and venerated like the skulls of ancestors. The hunting of whales was itself a sacred act, with special rituals conducted near a whale-shaped boulder. In the view of one authority, ‘the whale may very well be comparable to rice in the religions of other Indonesian peoples’ (Barnes 1974).

By contrast, whales were never hunted in Vietnam, and in coastal fishing villages the whale cult was especially elaborate. A 17th century Cham manuscript records that a local man, returning from Kelantan after a period of studying Malay supernatural *ilmu* (knowledge), was drowned when his boat sank in a storm. Encountering the drifting body, a whale carried the corpse back to shore and was showered with honours by a grateful community (Nguyen 2008: 78). A temple dated to 1762, located about 200 kilometres from Ho Chi Minh City, contains over a hundred whale skeletons as well as an ancient altar dedicated to the whale deity, ‘Lord Fish’. Numerous stories tell of fishermen or sailors who were helped to safety by whales, and even the emperor Gia Long (1802–20) was reportedly saved from drowning when a whale positioned itself under his boat, calming the seas and carrying him safely to shore. The emperor then decreed that whales should be venerated, and these great marine mammals received various imperial honours, such as ‘Giant Jade-scaled Spirit of the South Seas’. Many Vietnamese who fled the country by boat after 1975 believe that the whale spirit was responsible for their safe arrival as migrants, and the donation plaques on temple walls testify to their continuing gratitude (Durand and Tranh 1953: 186; Nguyen 2008: 87; Lantz 2009; Parnwell 2014: 92).

Sharks, rarely depicted on European maps, were quite another matter. Early modern scholars even referred to them as ‘lamia’, a word derived from Greek mythology and the same as that used for vampire witches,<sup>2</sup> providing the linguistic basis for the classification *Lamnidae*, which includes the great white shark (Davidson 2012: 5). Though various species are found throughout the world, the fear of a possible shark attack was probably greatest in the warm waters of Asia where diving for sea products was common. It is thus interesting to note that even allowing for underreporting, only eleven such incidents have been recorded in Sri Lanka since the early 19th century (*Shark Attack*: 2016). Nonetheless, pearl divers lived in constant dread of becoming a victim of a sudden and unprovoked attack. Even the Buddha in a former existence was said to have been afraid of ‘man-eating fishes’ as he floated across the ocean (Ingersoll 1973: 117). In the context of this article it is worth noting that the fate of those who fell victim to shark attacks helped stimulate da Vinci’s inventive spirit. He had Indian pearl divers in mind when he designed a prototype for a diving suit, equipped with long spines that could ward off any predators (Gabriel et al. 2005: 23). Four hundred years later stories of underwater confrontations between rapacious fish and humans moved the poet John Keats to lament the sacrifice of Ceylon divers, who in search of pearls held their breath and ‘went naked to the hungry shark’ (Keats 1820: 56).

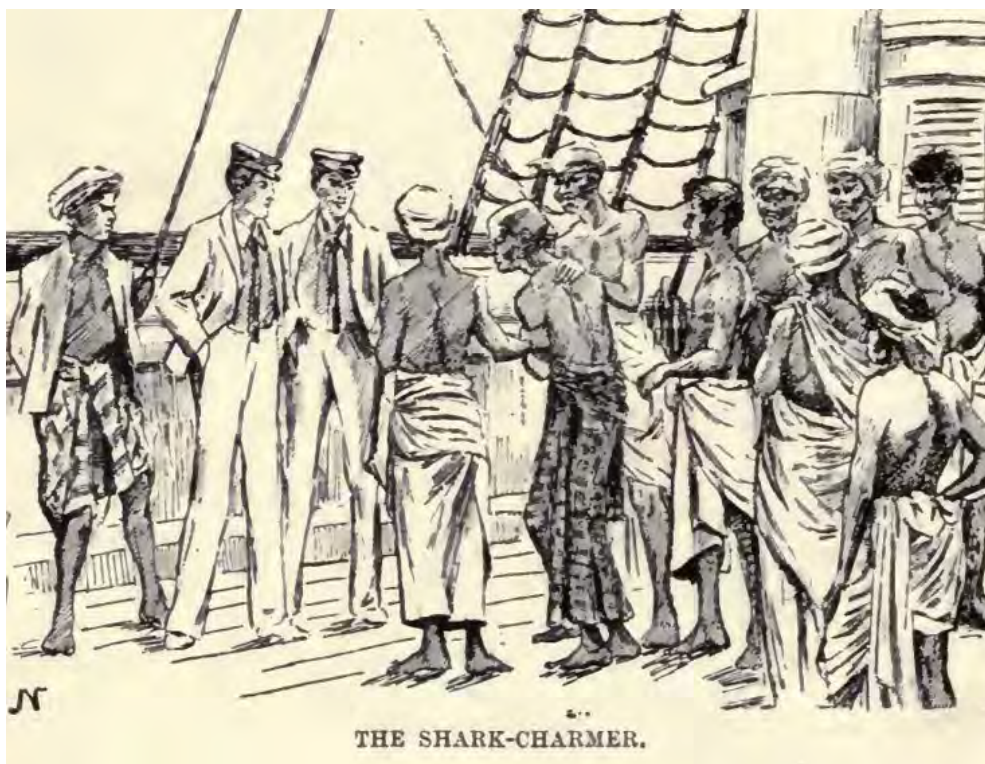
Humans, however, were not helpless victims. In the early 17th century, a Mughal historian, Tahir Muhd. ibn ‘Imad al-Din Hasan, writing of the ‘wonders’ of the ocean,

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2 ‘Lamia’ was the name given to the beautiful queen of Libya, reputedly with a snake’s tail below the waist, who was mistress of the god Zeus but was transformed by his jealous wife into a child-eating monster.

identified shark attacks as one of the great dangers of maritime voyaging, but said that the Portuguese dealt with this problem by throwing a bag (presumably containing food of some kind) into the sea. 'The shark swallows it and is content, and so does not attack the ship' (Subrahmanyam 2008: 66). Sharks posed a particular threat in the waters of Sri Lanka and southern India, but as Marco Polo observed in the thirteenth century, the pearl divers who descended to depths of up to 12 fathoms (21 metres) had their own potent sources of protection. The merchants who controlled the pearl industry paid for the services of 'Abraiaman' [Brahmins] who had the ability to 'charm the great fishes to prevent them from injuring the divers whilst engaged in seeking pearls under water' (Yule 1903: II, 330-332, 337). Five hundred years later, a British sea captain in Sri Lanka commented on the fear with which pearl divers regarded sharks, but also noted the pivotal role of the individuals who knew how to charm sharks so that divers would come to no harm (Yule 1903: II, 330-331, 337). The confidence vested in this form of protection was total; as another observer remarked, 'the only precaution to which these pearl divers resorted, be they Hindu, Muslim, or Parawa Christian, was the mystical help of the shark charmer' (Brohier 1973:56). These beliefs were so culturally entrenched that the colonial government, like local merchants, paid 'charmners' to pronounce incantations and perform rituals of exorcism before the beginning of the fishing season. One such individual was said to have demonstrated his skill by so enchanting a group of sharks that, although surrounded by divers, they were 'unable to open their mouths' (Steuart 1843: 14, 95; Brohier 1973: 56). It is likely that the relative infrequency of attacks in Sri Lanka (record-keeping since 1900 shows a marked contrast to Australia) simply reaffirmed popular belief that the powers of the shark charmners were effective.

Fig. 7: 'The Shark Charmer'. From J. E. Hutchinson, *The Haunted Pagodas-The Quest of the Golden Pearl*, London: Ward and Downey, 1897 (public domain)



In Malay waters, where listed shark attacks occur less frequently than in many other world areas (*Shark Attack*: 2016), there was even space for humorous stories of how the clever mousedeer, the *pelanduk* or *kancil*, had outwitted ‘friend shark’ (Skeat 1901: 5–8). Far more aggressive in Malay imaginings was the swordfish (*Xiphias gladius*), known for its capacity to leap into the air and for its occasional inexplicable attacks on inedible items and even boats. According to European accounts, it was the fastest swimmer in the sea, with a ‘sword’ as strong as steel, and accounts of its ‘prodigious feats’ generated spell-binding stories that were the stuff of marine legends. Accounts of an invasion by swordfish appear in various Malay texts, notably the *Sejarah Melayu*, the *Hikayat Hang Tuah*, and the Barus chronicle, providing an opportunity for the display of human ingenuity when a boy suggests building a wall of banana stems in which the ‘swords’ of the fish become impaled (Buel 1889: 214–216; Drakard 1992:74).

#### SEA PEOPLE, MERMAIDS, AND DUGONGS

In medieval and Renaissance Europe it was commonly believed that land creatures could have a counterpart in the sea, and in recording his alleged voyage to Iceland in 1563, a German preacher described an ocean populated with creatures resembling dogs, horses and cattle. ‘It is a marvel’, he wrote, ‘how skilfull Nature sports, in expressing the shape of all earthly Creatures and Fowles in the Sea’ (Nigg 2014: 80–1; Van Duzer 2013: 9, 120 n. 8). By the same token, it stood to reason that the sea could also be the domain of creatures in a humanoid form. As Europeans ventured out into the new and unfamiliar environments of Africa and Asia, they brought with them their own stories of sea-dwelling human-like creatures whose existence added to the wondrous nature of the underwater world. One oft-repeated account told of the discovery in 1430 of a ‘sea-girl’ in the marshes around the Dutch town of Edam who had been washed inland when a flood broke through the dykes. The women who found her took her back to Edam, showed her how to dress herself, taught her to spin and to make the sign of the cross, but she never learned to speak. She subsequently died and was buried in neighbouring Haarlem (Carozzi 1968: 193; Huigen 2011: 7; Scribner 2017). From this account and others, it appears that a fishlike tail was not necessarily associated with sea men and women. The girl found in Edam was ‘entirely like our women’ and other stories indicate that captured merpeople could live out of water. A sea woman and her daughter (the only survivors of a group of fifteen said to have been captured in the East Indies) was reportedly presented to Don Emmanuel of Portugal (1495–1521). They were able to live on land, but because they were clearly suffering, it was decided to release them into a shallow part of the sea. Though still restrained by a light chain, mother and daughter were overjoyed, ‘performing a thousand tricks’ for the enjoyment of the king and his court while also submerging themselves for three hours without surfacing. With this daily outing they both lived for several years, though they too never learned to speak (Carozzi 1968: 196).

It is often said that European acceptance of the existence of merpeople with fish-like tails was encouraged by encounters with the manatees and dugongs found in warm coastal waters from Africa to Japan, and by local accounts of legendary human-dugong connections. In Southeast Asia, it is not possible to date indigenous stories of these connections to the specific period of early European encounters, but they are a recurring motif in myths collected in more recent times (Bernatzik 1958: 41; Forth 1988). It is not surprising that female dugongs are prominent in these legends, not merely because their

mammary glands resembled breasts, but because their relationship with their young appeared to mirror that of a human mother. While any dugong taken from the water will appear to weep (the tears in fact being a mucous secretion used to protect the eyes from salt water), in the case of a female separated from her calf it was seen as evidence of maternal emotion. Over the centuries, observers have repeatedly commented on the visibly close relationship between females and their young. In the 1930s, for instance, a naturalist who had witnessed a female dugong protecting her baby from a shark attack said he felt ‘inspired’ by her devotion. Under normal circumstances, he continued, a female would use her flippers to clasp her suckling infant to her breast, and ‘drift along with her head and the upper part of her body showing above the water’. In this position she looked remarkably human-like from a distance, and ‘it is easy to understand how the creature gave rise to the famous mermaid myth’ (Patterson 1935).

While sailors may have regaled their landlubber friends with stories of mermaids based on sightings of dugongs, both the public and the growing scientific community in early modern Europe were convinced of the existence of merpeople because apparently verifiable evidence was supplied by reliable witnesses. Since social standing carried considerable weight, accounts by churchmen were accepted as irrefutable proof that human-like sea dwellers were a reality. In 1560, for instance, several Jesuit missionaries working in Ceylon reportedly captured sixteen such creatures, seven males and nine females. It was said that when dissected, ‘their internal structure was found to be in all respects conformable to the human’ (Tennent 1868: 70; Carozzi 1968: 198). The description of sea people

**Fig. 8:** From *Historia de las islas e indios visayas del Padre Alcina*, 1668, ed. Maria Luisa Martín-Merás and Maria Dolores Higuera. Madrid: Instituto Histórico de Marina, p. lxx. Muñoz text, 1784.

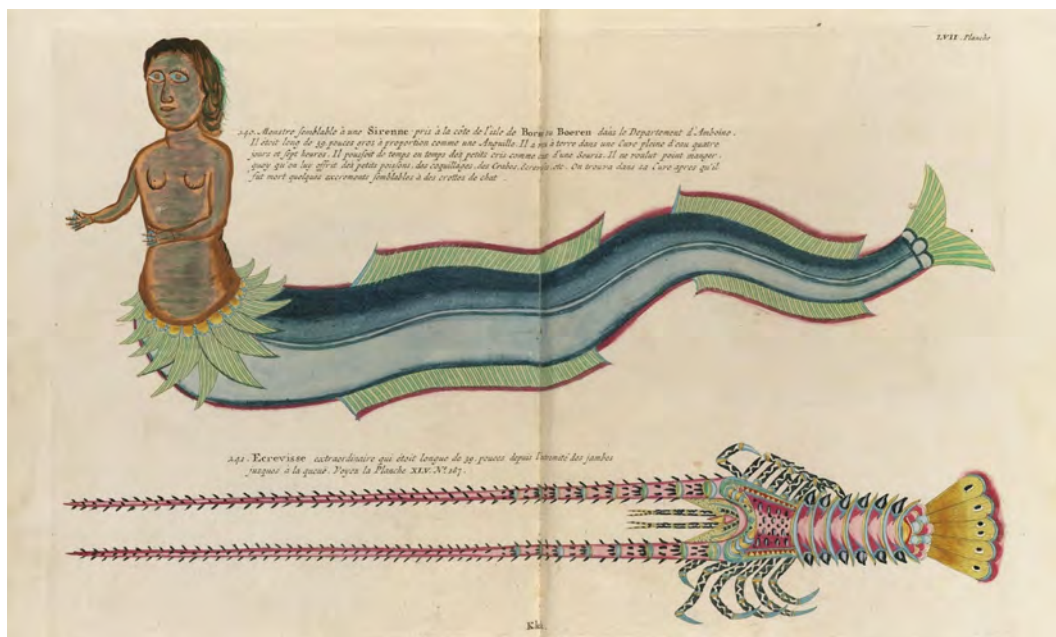


in the magisterial account of the Visayas by the Jesuit missionary Father Francisco Alcina gained unassailable authority because it was based on his own experience and because the use of local terminology pointed to his interaction with Filipino informants. Presumably reflecting indigenous distinctions, he clearly differentiated the dugong or ‘pese mullier’ and the ‘pescos macho y hembra’ from the male and female fish people or *kataw*. As he explained, the *kataw* or ‘sirenia’ did not have a fish’s tail, like the merfolk of Spain, but resembled a human being with webbed feet (as shown by the tracks they left in the sand). Furthermore, unlike fish, they could live outside the water, since they were often seen sunning themselves on small islands. In the sketch that accompanies the 1784 copy of his manuscript, these ‘catau hombre’ and ‘catau baya’ (male and female *kataw*) are shown gambolling in the sea, obviously distinguished from other forms of marine

life, including the dugong (Martín-Merás and Higuera 1975: 289; Kobak and Gutiérrez 2004: 299–301, 363).

In the early 18th century, a similar distinction was made by the Dutch minister François Valentijn (1666–1727), who published several ‘well authenticated’ reports of *zee-menschen* and *zee-wyven* (sea men and sea women) who had been found in eastern Indonesia. He made particular reference to the reports of a mermaid provided by Samuel Fallours, an artist and clerical assistant employed by the VOC in Ambon, where he had spent several years from 1706 to 1712. Fallours was known for his beautifully coloured illustrations of tropical fish, drawn from life, and in 1716 a set of pictures, including one of a ‘sirenne’ arrived in Hanover. Complying with contemporary expectations of a mermaid—long greenish hair, a pleasant face, human-like breasts, a fish tail—her tropical origins were nonetheless suggested by her dark skin (Scribner 2017: 518). In the accompanying notes Fallours explained that his son had bought the mermaid from local people, who had captured her near the island of Buru. Although kept in a tub of water, she refused to eat and only lived for four days. ‘It did nothing but whimper with little cries [that sounded] something like rats’. As a side comment, Fallours recorded that ten years earlier a male had been found off the island of Nusa Laut, ‘completely shaped like a man down to the lower abdomen’ (Valentijn 1724–26: Vol 3, 1: 331–332; Pietsch 1991:5; Cordingly 2001: 169; Huigen 2011: 5–7; Scribner 2017: 11–12).

**Fig. 9:** Portrait of a mermaid, by Samuel Fallours. From Louis Renard, *Poissons, Écrevisses et Crabes*, 1754. Digitized by the Ernst Mayr Library, Museum of Comparative Zoology, Harvard University (<https://blog.biodiversitylibrary.org/2016/08/renards-book-of-fantastical-fish.html>)



The image of the ‘Ambonese mermaid’, first published in 1719, clearly caught Valentijn’s attention. His ‘Treatise on the aquatic animals of Ambon (*Verhandeling der Water Dieren van Amboina*) included an engraving of this *zeewijf*, adapted from the painting by Fallours and accompanied by his own commentary. Apart from her rather strange light blue eyes, said Valentijn, the facial features of the Ambonese mermaid were very human and the picture he included, though reputedly a copy of that by Fallours, supported this

claim by depicting a more physically attractive mermaid than the original. In order to give his account added verisimilitude, the ‘mermaid or sea-woman from Buru’ (*meemin of Boeroneesch zeewyf*) was shown in a realistic setting, swimming in a bay with other strange creatures against a background of rugged hills. Completely convinced of the existence of sea-people, Valentijn dismissed arguments like those advanced by the botanist Georg Rumphius (1627–1702), who had contended that dugongs had been mistaken for mermaids (Huigen 2011). The counter-evidence, Valentijn maintained, was clear: there had been numerous other local reports of merpeople in the Ambon region, and around 1652 a male and female were observed by more than 50 people. During his own return voyage to the Netherlands, he could personally attest to seeing a ‘marine human’, which was witnessed by his crew as well (Pietsch 1991: 8–9). In the same vein, other Dutch East India Company officials and Christian ministers affirmed European and local sightings of human-like beings. Similar eye-witness accounts could be found in various parts of the world, encouraging those enlightenment thinkers who accepted the reality of merpeople to adopt new approaches by which rationality could explain the wondrous (Scribner 2017).

**Fig. 10:** The ‘Seawoman from Buru’. From François Valentijn, *Oud en Nieuw Oost Indiën*, Vol. 3, Amsterdam, 1724–26

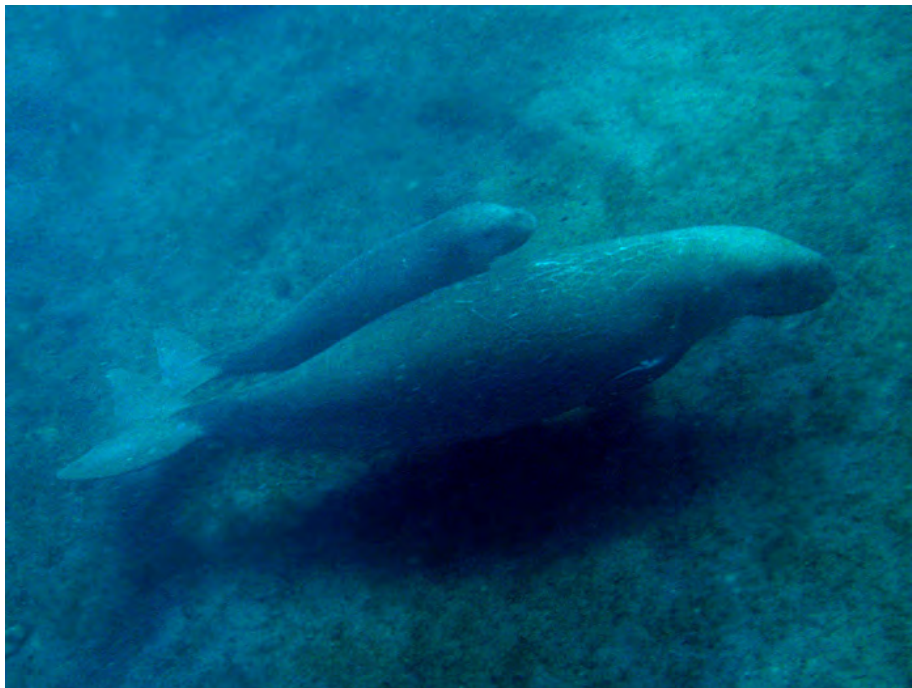


For some 18th century naturalists, notably Benoît de Maillet (1636–1748), the investigation of merpeople provided evidence of humanity’s aquatic roots and thus challenged Biblical teachings about the divine origins of human life (Carozzi 1968; Scribner 2017: 525–528). Although he was forced to disguise his theory in the form of a fictitious conversation between an Indian philosopher and a French missionary, such ideas would not have shocked seagoing societies in Asia as they did in Europe. In much of Southeast Asia, for instance, belief in ancestral links between human beings and dugongs were widespread. In Indonesia, this association is reflected in the local name for mermaids, *putri duyung* (dugong princess), and it is not difficult to understand why an ancestor statue might be carved from the bones of a dugong (Nontji 2015: 46). Across the region legends that sought to



explain why once-human dugongs had abandoned the land often conveyed a moral about appropriate behaviour or treatment of others (Saifullah 2009: 54; Moore et al. 2017). According to some accounts, for example, dugong may have taken to the sea in ancient times because of family disputes or because he or she had been badly treated by a spouse (Karim 1981: 48; Forth 1988). However, in so doing they undermined the links with their terrestrial existence and because they made their home in an environment that is for humans an alien space, dugongs were regarded with some ambivalence. Indeed, one story collected among the Moken, the sea people of southern Thailand, recalls that sea spirits dragged a disobedient daughter into the water and transformed her into a dugong as punishment (Bernatzik 1958: 41). Still today, despite the common theme of close kinship between fishing communities and dugongs, and injunctions to treat them with respect, they may be killed for their meat, which is believed to have health-giving properties, while the tears shed by captured dugongs have long been regarded as powerful love potions (Saifullah 2009, 54–5; Nontji 2015).

**Fig. 11:** Dugong mother and offspring from East Timor. Credit: Nick Hobgood (Wikimedia Commons, [https://commons.wikimedia.org/wiki/File:Dugong\\_mother\\_offspring.jpg](https://commons.wikimedia.org/wiki/File:Dugong_mother_offspring.jpg))



#### OCEAN DANGERS AND SUPERNATURAL ASSISTANCE

Though scepticism among the scientific community steadily increased, belief in underwater beings remained widespread in Europe well into the 19th century and continued to inspire the poetic and artistic imagination (Baring-Gould 1868: 289–292; Bondeson 1999: 62; Viscardi et al. 2014). Yet while the ocean might be a place of enchantment and marvels, for those who traversed the high seas it was also menacing and potentially life-threatening. The long-standing European fear of sea-monsters such as the *kraken*, so large it could be mistaken for an island and with arms that could pull even the largest ship down to the bottom of the ocean, was well entrenched. Such beliefs were reinforced by tracts like that

describing a ‘marine monster’ captured off the Dutch coast in 1661, which had resisted so violently that the fishermen thought ‘the devil himself’ had been caught in their nets. After due investigation by ‘physicians and learned people’, it was concluded that this monster was ‘a marvellous and unique creature, whose significance is known only to the Almighty’ (Rappoport 1928: 144–146; Heuvelmans 1968: 50, 56; Heuvelmans 2003: 138–139). Perhaps the most widely publicised account came from a reputedly reliable source, the Danish missionary Hans Egede. Though rejecting the idea of mermaids, he claimed that on July 6 1734, when his ship was off the coast of Greenland, he had seen ‘a very large and frightful monster’, a sea serpent so huge that its head reached as high as the main mast’ (Hamilton 1846)

**Fig. 12:** Great sea serpent seen off the coast of Greenland in 1734. An engraving by W.H. Lizars based on a description by Hans Egede, in Robert Hamilton, *The Great Sea Serpent*. The Naturalists Library 25 (1846), Plate XXVIII

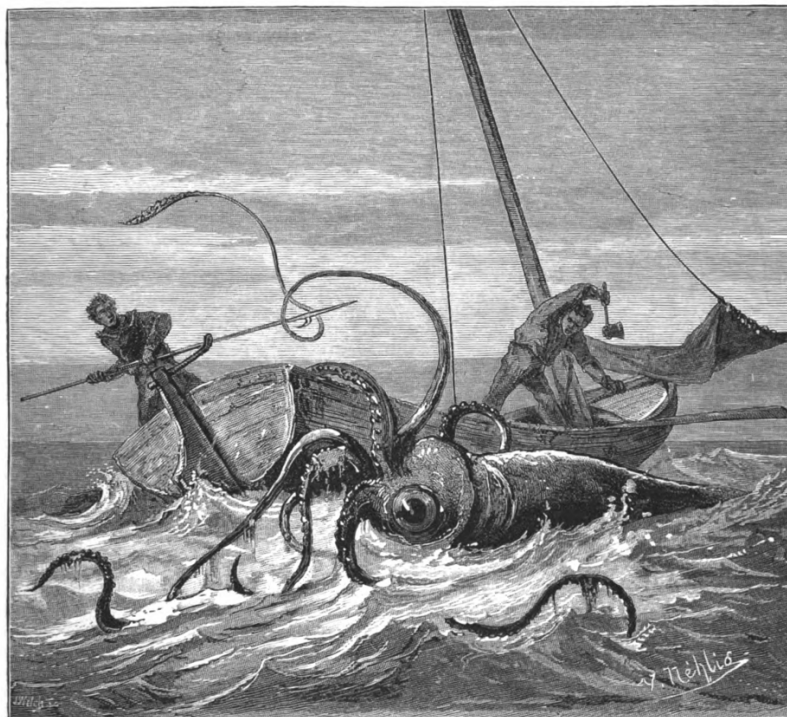


Although the authentication of the ‘great sea serpent’ became a nineteenth-century pre-occupation, for European sailors in earlier times the apprehension of a possible attack by some sea monster intensified as ships approached the tropics because in hot climates, it was said, giant fish and predatory squid reached an enormous size. The belief that such creatures were especially prevalent in Asian waters can be tracked from the fourteenth and fifteenth centuries, when European maps and charts locate the majority of sea monsters in the Indian Ocean (Van Duzer 2013: 43–48). Occasionally cartographers also extended their visions further east; an early sixteenth century map, for instance, refers to a sea monster ‘the *granus*, a very large fish that has only one eye in its face’ which was found off the coasts of Java (Van Duzer 2013: 75). It is here too, that we encounter the Latin phrase *Hic Sunt Dracones*, ‘Here be Dragons’, commonly thought to be a feature of early European *mappamundi*. However, its occurrence in written form has to date been found in only three places—in a world map of the circumfluent ocean drawn up around 1480, and on two very similar globes that may be associated with the workshop of Leonardo da Vinci (Van Duzer 2012: 60–62; Missine 2018).

The better known of these globes, made of copper and produced between 1504 and 1506, is now in the New York Public library, while the second, presumed to be a little older, was discovered only in 2012, and is held by an anonymous collector. Engraved on two conjoined halves of an ostrich egg, it is dated to 1504 (Missine 2013). What is particularly intriguing is that both globes place the reference to dragons in the waters of Southeast Asia. Despite speculations about connections to the large Komodo monitor lizards of eastern Indonesia, a more likely identification is the *draco marinus*, the sea dragons associated with distant and unfamiliar oceans (McCarthy 2011; Van Duzer 2013: 60–100). Indeed, the famous world map of 1546 attributed to Pierre Desceliers specifically sites the illustration of a small but elegant sea dragon off the west coast of Java Minor (i.e. Sumatra) (Van Duzer 2013: 95–97).

In the following centuries European mariners continued to compile their own corpus of stories about monstrous sea creatures in Asian seas and the dangers they posed, but although these accounts were allegedly based on personal experience, they were undoubtedly fed by interaction with local sailors and fishermen. According to the Welsh naturalist, Thomas Pennant (1726–98), one of his friends who was ‘long resident among the Indian isles’ had been reliably informed by ‘natives’ that they had seen giant squids measuring ‘two fathoms broad over their centre, and each arm nine fathoms long’. To this he added his own observations, for ‘when the Indians navigate their little boats, they go in dread of them: and lest these animals should fling the arms over and sink them, they never sail without an axe to cut them off’ (Heuvelmans 1968: 54). The depth of local belief is evident in the oath sworn in Burmese law courts; adapted from the Laws of Manu, it directly invoked such creatures as agents of divine punishment for false witness ‘When I am going by water, may . . . the boat be upset and property lost; and may . . . sea monsters crush me to death’ (Malcom 1848: 167).

Fig. 13: Illustration showing a giant squid attacking a boat, by Victor Nehlig (1830–1909)



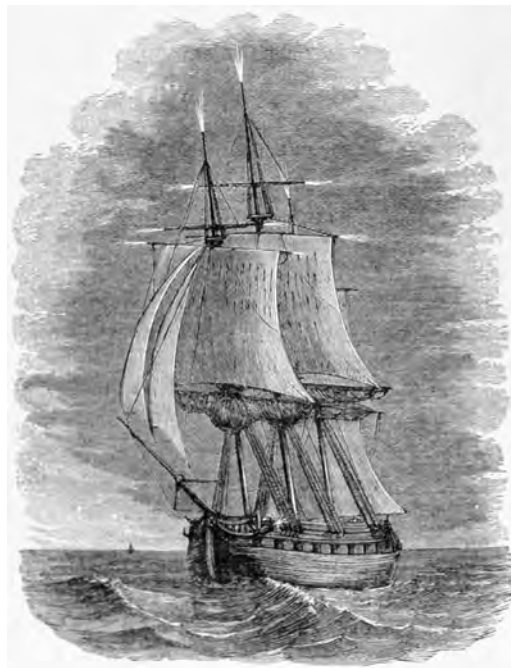
THE FISHERMEN BATTLE WITH THE GIANT SQUID.

## SEEKING PROTECTION FROM DISASTERS

Though a potential attack by some giant monster certainly permeated the seagoing imagination, more threatening for all mariners was the very real possibility of some unexpected but common disaster — the violent storms, colossal waves, powerful winds that could mean certain death. Despite the depth of the region's maritime traditions, we should not see Southeast Asia as exceptional to the coastal areas of Europe, where 'the majority of early modern men and women' regarded the sea as 'a dangerous place, which was associated with disorder, chaos and death' (Eber 1997: 62). Shipwrecks and drownings were common, and there were few families who had not been affected by some tragedy. Ocean-going vessels could capsize in heavy seas, founder on a hidden reef or fall victim to some pirate attack. One of the most terrifying experiences was probably the giant or 'rogue' waves that a ship could encounter in otherwise calm waters. Embarkation for a long-distance voyage was thus a perilous venture, and sources from the early modern period are replete with reports of ships that had run aground in unfamiliar waters. Among the most detailed is an account by a Siamese ambassador en route from Ayutthaya to France. Shipwrecked off the coast of Africa, he survived his exhausting experiences, comforted by the conviction that the 'benevolence of the great king (Narai, r. 1656–88) will ever protect us' (Smithies 1999: 37).

This gratitude to a king whose power was globally effective points to a question that bedevilled all seafarers: how could they deal with the perils that potentially confronted them? Perhaps, some thought, this could be resolved by new technologies. In the late 16th century, for instance, the Mughal historian Tahir Muhd identified whirlpools as one of the 'great terrors' of the sea, but reported that the Portuguese were able to forestall danger. 'When they see clouds that can cause a problem, they simply fire their cannon; and the sound . . . sends the clouds upward and so that no whirlpool is formed' (Subrahmanyam 2008: 61). In most cases, however, sea travellers would look for non-human assistance. One common concern was the luminous electrical discharge that often appeared on the tips of masts during a thunderstorm and for which early mariners had no explanation. Muslim sailors were inclined to see it as evidence that a hostile sea spirit had boarded the ship, and Tahir Muhd. told his readers that if this 'special fire . . . persists in hanging over the mast, the ship cannot advance and sinks'. Malay sailors similarly saw these strange lights as signalling the presence of a malevolent water spirit (*hantu air*), and to prevent such an occurrence, they inserted sugar palm twigs (also used to protect women in labour) into masts to prevent the *hantu* from landing. The accompanying chant called on the spirit to return to 'his place', for if he did not do so he would be punished by Allah himself (Skeat 1900: 279, 621). By contrast, the Portuguese and Spanish welcomed what became known as 'Saint Elmo's fire' (after the Dominican friar Peter González, a patron saint of sailors), seeing it as 'the Sacred Body' (*cuervo sante*) and proof of divine protection. Like sailors everywhere, they accepted the potency of religious invocation as a shield against disaster. Even reading the gospel of Saint John could be a powerful counter to the danger of waterspouts (Aimé-Martin 1843: 714; Rappoport 1928: 23–36; Subrahmanyam 2008: 61; Rappoport 1928: 23–36; Hsia 2010: 33–34).

**Fig. 14:** 'St. Elmo's Fire on Mast of Ship at Sea', in G. Hartwig, *The Aerial World*. London, 1886 ([https://commons.wikimedia.org/wiki/File:Elmo%27s\\_fire.jpg](https://commons.wikimedia.org/wiki/File:Elmo%27s_fire.jpg))

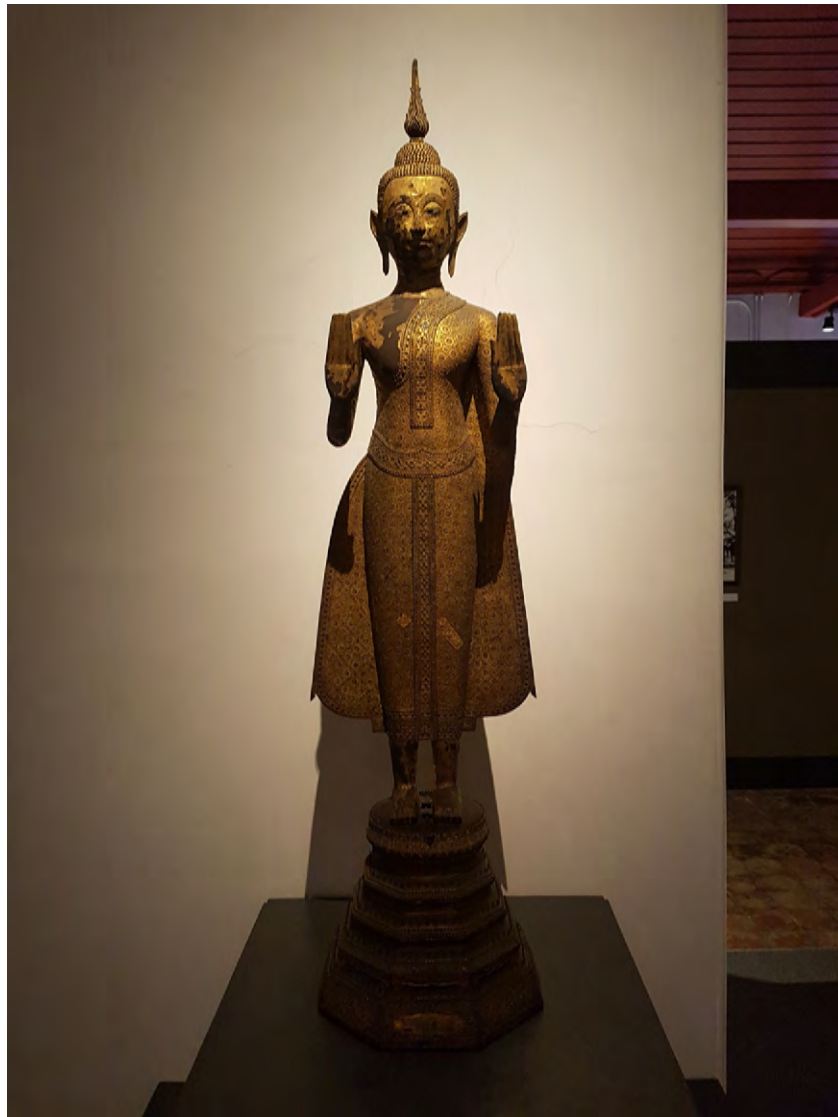


As I have argued elsewhere, sources from the early modern period provide recurring evidence that the universality and portability of 'macro-local' religious systems were enormously influential as seafarers sought to overcome the dangers of the ocean (Andaya 2017). The Qur'an, for example, speaks of the comfort Allah provides when 'there comes a storm wind and the waves come from everywhere', for 'if He willed, He could still the wind' (Surah 10: 22; Surah 42: 33–34). As Muslim ideas moved into Southeast Asia even ancient adversaries thought to attack land dwellers could be domesticated, and the story of the teacher who brought Islam to Kutai, the 'gentleman astride a swordfish' (Tuan Tunggang Parangan) provides a bridge into a consideration of the ways in which traditions were reshaped (Mees 1935: 240). In a similar mode, the *Tuhfat al-Nafis*, a 19th century Malay text, presents the swordfish attack on Singapore as divine retribution after the ruler put a religious teacher to death (Hooker and Andaya 1982: 13).

Of particular comfort was the appearance of a deity or supernatural being known to have the power to protect and preserve those who supplicated their help. Evidence of such powers included the ability to defy the forces of gravity, to survive in places where humans would perish, and in the maritime context, to walk across the surface of the ocean as a pilot or guide. In Buddhism the ability to walk on water is listed as one of the *riddhi*, or miraculous powers; various texts from South Asia, such as the *Samaññaphalasutta*, and the later *Visuddhimagga* written in Sri Lanka by Buddhaghosa in the 5th century, detail the supernormal skills displayed by spiritual masters, which included flying through the air, walking through solid obstructions, diving into the ground, and walking on water (Brown 1928: 15–17; Fiordalis 2008: 114, 124). Although the Buddha usually flies through the air, the fact that his disciples and devotees often walk on the water is seen as evidence of their concentration on the ultimate truths of emptiness and non-self. Texts and stories associated with Theravada Buddhism provided numerous accounts of 'sea miracles' performed by bodhisattvas and *arahats* who, as John Strong puts it, 'can walk on water as a

matter of course' (Brown 1928: 17–18; Strong 1992: 221). The 'walking on water' motif in Buddhist texts normally refers to river crossings, but this was easily extended to the seas as well. The *Silānisamsa Jātaka*, for example, describes how concentration on the Buddha's teachings enables the faithful to walk on water and survive the perils of the ocean (Kawasaki and Kawasaki 1995). In this context, it is intriguing to note that the style of Buddha statues in the Ayutthaya period is often characterised by the double *abhaya mudra* known as 'calming the ocean' (even though the story was associated with a river) (Le May 1938: 29; McGill and Chirapravati 2005: 54):

**Fig. 15:** Standing Buddha in the attitude of calming the ocean or stopping the flood, Siwamok Phiman Hall, Bangkok National Museum, Bangkok, Thailand ([https://commons.wikimedia.org/wiki/File:Bangkok\\_National\\_Museum\\_-\\_2017-04-22\\_\(073\).jpg](https://commons.wikimedia.org/wiki/File:Bangkok_National_Museum_-_2017-04-22_(073).jpg))



For Chinese Buddhists, Guanyin of the South Seas was specifically associated with cults for mariners, and her intimate relationship with the sea and its denizens is evident in depictions that show her walking through the waves or riding on the back of a fish (Guy 2014: 8–10). Similarly, in Daoist thought the Perfect Man can walk under water without

drowning, and Guanyin's counterpart, Mazu, the goddess of the sea and protector of seafarers, is typically presented standing amidst the waves. Her presence in the form of a 'divine light' that appeared on the masts of his ship during a storm was interpreted by the 15th century admiral Zheng He as evidence that the danger of shipwreck was now past (Duyvendak 1939: 350).

Globally disseminated, a storehouse of legends registers the various signs that affirm supernatural powers, which commonly include walking on water or flying through the air. For example, according to Javanese and Malay narratives loosely based on the *Mahābhārata*, Bima, one of the five Pandawa brothers, acquires a magical formula (its very name, 'water destruction', *ali jala sengara*, registering superhuman skills), that will enable him to walk on water (Arps 2018). The same motif can be traced in numerous other texts. Returning from Ratu Kidul's underwater palace, where his supernatural power has been enhanced, Senopati, like Ratu Kidul, was magically able to walk across the sea's surface 'as if he were on land' (Olthof 1941: 81–83). When Raja Chulan emerged from the ocean, he too walked across the ocean (*berjalan di tengah laut*). The status of 'Lady Eve' may have been downgraded in Muslim theology, but a Malay folk tale says that after she quarrelled with Adam, she walked across the Melaka Straits to Sumatra, where she became queen of *orang sebarang*, the people on the opposite side (Skeat 1901: 38–39). According to the *Hikayat Patani*, the bodies of an Islamic teacher and his pupil who had been unjustly executed stood upright in the water, clear proof of their innocence (Teeuw and Wyatt, 1970: I: 76–77, 152–154, 227–228). These powers, a sign of divine blessing, are bestowed only on extraordinarily devout individuals, as evident in the stories associated with the *wali songo*, the saintly individuals who brought Islam to Java, often by walking across the ocean (Palmer van den Broek 1873: 249–50; de Graaf 1949: 81)

Such stories were easily transposed into the lived lives of ordinary seafarers. Around the Bay of Bengal, Muslim traders believed that eminent Sufi teachers could protect a ship from danger, and that they would appear walking along the surface of the ocean to lead a ship to safety (Bang 2003: 205; Suvarova 2004: 10–11; Andaya 2017). In the Mindanao province of Tawi-Tawi, a mosque regarded as the oldest in the Philippines is said to have been founded by a Sufi saint from Bengal. Attracting many converts, he was renowned for his supernatural abilities, including the ability to walk on water (Roces 1977: 675; Patanñe 1996: 152–167).

Though Christianity was a relatively late arrival in the Asian region, the sea played a prominent part in biblical episodes, from stories of the recruitment of fishermen as disciples to the miracle of Christ's walking across the Lake of Galilee—a gift which St. Peter found could be given to those whose faith is great. Greek sailors, for instance, believed that St. Nicholas could walk on water using boots made of special marine herbs and thereby guide sailors to shore (Rappoport 1928: 54). Various other saints (Barbara, protectress against sudden death, for instance, or Claire, who could guarantee good weather) were willing to extend their protection to mariners by appearing as visions on the ocean or manifesting their power through subduing a storm. Foremost among such figures, of course, was Christ's kind and gentle mother. Her centrality in popular Catholic praxis and her incarnation as Stella Maris, the 'star of the sea,' made her a particularly potent symbol of divine protection for ocean voyages. As one authority has put it, 'Catholic sailors are convinced that the Virgin Mary possesses more power over the sea than all the Saints put together'. Stories of her power to calm storms are legion, and sailors often said that they could see her walking over the waves to shepherd their ship to port (Rappoport 1928: 53; Andaya 2017).

**Fig. 16:** Stella Maris, Pamarawan Island, Malolos City, Bulacan, Philippines ([https://commons.wikimedia.org/wiki/File:08558jfStella\\_Maris\\_Churches\\_Pamarawan\\_Island\\_Malolos\\_City\\_Bulacanfvf\\_34.jpg](https://commons.wikimedia.org/wiki/File:08558jfStella_Maris_Churches_Pamarawan_Island_Malolos_City_Bulacanfvf_34.jpg))



#### THE ENCHANTED OCEAN: FASCINATION AND FRUSTRATION

As recorded in the *Sejarah Melayu*, Raja Chulan decided to descend to the bottom of the ocean because he was already familiar with the earth's 'contents', while the sea was an unknown place. Although the description of Raja Chulan's amazement as he saw 'Allah's marvels' from his glass box testifies to the cross-cultural dissemination of the 'Alexander Romance', that wonderment is still with us today (Stoneman 1991: 118; Ng 2016). Because so much of what lies beneath the world's oceans remains unexplored, the imagination of land-dwellers is allowed free rein, whether conceptualising undersea kingdoms, mysterious marine creatures, or the possibility that certain individuals might indeed be able to walk on water. Speculation is still rife as social media continues to dwell on the puzzling fate of MH370, lost over the Indian Ocean in 2014, while the story of the *Flor de la Mar*, shipwrecked off the coast of Sumatra in 1511 with what is reputedly the world's most valuable cargo, still has the power to fascinate (McNearney 2017). Scientific discoveries can also capture public attention. In 1857 the giant squid, once thought to be mythical, was identified as genus *Architeuthis* and in the 1870s British scientists aboard the HMS *Challenger* discovered more than 4,700 new species of marine life (Reynaud 2014: 12–14). Well over a century later there is still much that is unknown. International headlines recently lit up, for instance, when a research expedition trawling the abyss of Australia's east coast at a depth of four thousand metres announced their finds of 'faceless' fish, flesh-eating crustaceans and sharks whose strange eyes glow in the dark (Osbourne 2017).

Nonetheless, fascination is often met with frustration, particularly in regard to maritime archaeology, despite the publicity given to sunken cities, like those discovered



recently in Alexandria, or the beauty of ceramic bowls on ships wrecked long ago in the seas off Singapore (Lawler 2007; Miksic and Goh 2017). Southeast Asian governments, preoccupied with the tourism potential of land-based monuments, have shown little interest in protecting the remains of shipwrecks. Excavating cargoes lost in deep water is also problematic, for these locations will only be accessible by mini-submarine and will require 'exceptionally brave' pilots and divers (Kimura 2015; Flecker 2017). Although technology is pressing forward with atmospheric diving suits that will do away with the physiological dangers caused by water pressure, maritime archaeology is very different from that conducted in terrestrial sites and demands quite specialised training (Patterson 2016). At the same time, the insatiable public fascination with sea creatures has some scientifically questionable results as, for instance, when the assumed ruthlessness of monstrous sharks is juxtaposed with human-like qualities of whales or dolphins. Accepted by many viewers as a representation of reality, the shark attacks depicted in films like *Jaws*, though compelling, are products of fantasy, and fake 'documentaries' garner ratings with claims that long-extinct monster sharks are still alive and are actively sought by marine biologists. Though attracting Animal Planet's largest-ever audience, the 2013 TV movie *Mermaids: The New Evidence* incurred a hail of criticism because it conveyed the message that scientists were deliberately hiding information about humanoid beings from the public (Taylor and Shiffman 2015).

In part, the challenge of the sea stems from the knowledge that despite longstanding debates about human evolution and the idea of a distant aquatic ancestry, our ability to move freely in the ocean is as yet unattained (Vanechoutte et al. 2011). Olympic swimming records may continue to fall, but no human being is ever likely to rival the speed of fish and we are even further from overcoming the limitations of hydrodynamics and walking unaided across a water surface. By 2016, a clip by the magician Criss Angel in which he allegedly accomplished this feat had generated more than 60 million viewers, but scepticism about such claims has a long history (Grundhauser 2015; Levin 2017). While Greco-Roman philosophers accepted that individuals with extraordinary powers could calm storms at sea, they decried the ability to walk on water, arguing that it occurred only in dreams (Grant 2011: 178). Yet Leonardo da Vinci was by no means alone in imagining that this could be achieved, and the invention of water skiing nearly a hundred years ago has not dispelled human obsession with the possibility of true 'water-walking'. Though the phrase 'walk on water' is still a code for something conceived as unreachable, over the last 150 years Americans have patented around a hundred inventions directed towards this goal (Riordan 2004).

Encapsulating the mixture of fascination and frustration with which we continue to approach the oceans, a recent article has put the case well. Humanity's 'given position' is on earth, but the sea taunts us with our apparently terrestrial fate. Because the seas and the ocean offer 'a void big enough to contain human metaphor and myth', humans will always persist in their effort to master this domain (Emley 2017). The curiosity that drove Raja Chulan to descend beneath the ocean lives with us still.

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