Abstract

Hongs are dolines within fengcong karst that are invaded by the sea. They are surrounded by steep walls and sheer cliffs, and are only accessible through sea-level caves within the tidal zone. The isolated limestone islands of Phang Nga Bay in Thailand rise steeply from the sea and are often forest covered, and contain scenic hong lagoons. They are a very popular place for tourism. Kayaking into the hongs is a lucrative operation for tour companies. Visitors are attracted by the beautiful landscape and the chance to explore dark caves by kayak and to see the hidden gardens inside the hongs.

Key-Words: hong, doline, marine karst, tidal cave, Thailand, Southeast Asia.

1. INTRODUCTION

Phang Nga Bay or Ao Phang Nga lies south of the province of Phang Nga in the Isthmus of Kra in south Thailand. The Isthmus of Kra is a narrow landbridge that connects the Malay peninsula to Thailand. The Thai peninsula has the Andaman Sea to the west, and the Gulf of Thailand to the east. Phang Nga Bay is located in the Andaman Sea and is surrounded on three sides by the resort towns of Phuket, Phang Nga and Krabi.

The west coast of the southern Thai peninsula has numerous limestone islands. These islands extend southwards down the Thai coast and as far as the Langkawi islands in northwest Malaysia. Limestone is also found on the mainland, occurring as karst towers in Phang Nga, Phuket, Krabi, Trang and Satun provinces, and across the Malay border into Perlis and Kedah.

Phang Nga Bay is a large karst area that has been flooded by the sea, leaving the karst plain fully submerged, and resulting in islands that rise dramatically from the sea. It is a stunning landscape. The islands generally have sheer cliffs and rugged profiles, and can be compared to the famous World Heritage site of Ha Long Bay in Vietnam. 

Photo 1: General view of limestone towers in Phang Nga Bay

The limestone of the Phang Nga area dates to the Permo-Carboniferous period. The walls of the cliffs show solution notches, formed when the sea level was higher. Dissolution and wave action shaped the cliffs. There are clusters of steep sided hills typical of fengcong karst, as well as individual single towers. Some of the towers have fossil caves with entrances high up in the cliffs. There are younger sea-level caves as well as drowned caves which are now below sea level.
Many of these islands contain hongs. Hong is a Thai word meaning room. Hongs are basically large dolines that are open to the sky and are surrounded by steep limestone cliffs and contain tidal lagoons. The hongs can only be reached through the caves, unless one wants to climb up and over the sheer limestone walls. Access through the caves depends on the tides. During high tide the entrance and possibly the whole cave will be underwater, but as the tide lowers, a way through the cave is revealed. Many of the caves have low entrances which are close to the water level, and have deep water throughout. This means that access through the cave is limited to short periods of maybe an hour or so around the low tides. Some caves have high ceilings inside and are well decorated with stalagmites and stalactites, and some even have colonies of bats and swiftlets. These creatures must use other dry entrances and not the tidally submerged ones. [photo 02]

Photo 2: Kayaks entering sea cave

The sea-level caves may pre-date the hongs, or may have been formed as a result of them. The hongs, which can be more than 300 m in diameter, may have originally had a roof.

Today they are open to the sky, admitting sunlight which allows the growth of flora. This presents a beautiful area akin to a hidden garden. Mangroves are found at sea level, and small forests may be found if there is sufficient dry land. Plants are able to grow on the sheer walls, especially cycads which can be seen high up on the walls. Cycads are the oldest group of seed-bearing plants and have undergone relatively very little change over the last three hundred million years or so, earning them the euphemism of “living fossils”. There may be endemic species of palms and figs. [photo 03]

Photo 3: Mangroves are commonly found inside hongs

The fruiting trees such as figs provide seasonal food for many species of birds and primates. Long-tailed macaques feed on fruit and insects, as well as crabs and crustacea at water level. [photo 04] Dusky langurs, or leaf monkeys are vegetarian and can survive on the plants inside the hong. Even gibbons may be found on the larger karst islands where there is continuous forest cover big enough to support their dietary needs. At water level, monitor lizards, snakes and other reptiles may be seen. Birds are common inhabitants.

Photo 4: Dusky langur (also known as leaf monkey, spectacled langur, or spectacled leaf monkey) (Trachypithecus obscurus) can be seen inside the hongs
Local people have known about these caves for a long time and have collected birds’ nests from within the caves. Fisherman also go to the hongs. But the vast majority of visitors are tourists. South Thailand has been a popular tourist destination for decades, and for the last 20 years, sea kayaking into the hongs has been a lucrative operation for tour companies. Flotillas of canoes go to the hongs each day.

Visitors are attracted by the beautiful landscape and the chance to explore dark caves by kayak, or even a long swim, and to see the hidden gardens inside the hongs.

2. TOURISM IN PHANG NGA

Flying into the international airports of Phuket or Krabi you can get a good view of the limestone islands dotted around the coastline. This area of southern Thailand is heavily visited by tourists all year round. There are renowned tourist sights such as James Bond Island, or Ko Phing Kan, which was made famous when the area was used for filming “The Man with the Golden Gun”.

Apart from boat trips and recreational diving, sea canoeing is very popular in the Krabi and Phuket areas. There are many accessible islands to explore in the Phang Nga bay area, which has sheltered waters. The area is part of National Marine Parks and there are strict controls on tour groups. This helps to protect the islands and caves. One negative aspect of the visitors is the feeding of the sea eagles from the boats. The birds are fed with scraps of chicken, and this routine is upsetting their natural diet as well as making them reliant on free hand-outs.

Phuket is the main base for sea canoe trips. These range from day trips to seven day tours. On the day trips, a large boat takes the tourists to the island, and from there they paddle single or double kayaks into the hongs.[photo 05]

Ko Hong or Hong Island is one of the most visited islands. In the centre is a hidden lagoon. After a low entrance the cave roof rises, revealing some stalagmites and stalactites on the dry banks. Then the roof suddenly lowers and the walls close in leaving a gap not much larger than a kayak. The canoeists have to lie flat to get through. This tunnel leads out into a hong. The sheer limestone walls rise more than 100 m, and are capped with green vegetation. The grey and white cliffs are streaked with red, orange and black striations, created by algae and lichens. Green pandanus and other palms and shrubs cling to the precipitous walls. There are mangroves at water level.

Photo 5: Karst tower of Ko Hong

Ko Panak is a larger island off the Phuket coast. It has at least nine hong lakes, four of which are each more than 100 m across and are used for tourism. Mangrove Cave, Tham Pa Chai Len, is a dark cave leading to a hong with mangroves, which is used by fishermen. Diamond Cave, Tham Phet, is just south of Mangrove Cave, and named from a nice flowstone inside the dark cave. The 70 m long cave leads to one hong, then an arch passes to another hong. Bat Cave, Tham Khang Khao, on the west side of the island is 150 m long and dark, and houses colonies of insect bats which seem oblivious of the kayaking tourists. The cave leads to a very large hong, 120 m across. Troops of crab-eating Long Tailed macaques inhabit the hong. The fourth cave is Oyster Cave, Tham Man Hoi, 50 m long and leading to a small hong.[photo 06]

Photo 6: Paddling through the cave into a hong

Further north in Phang Nga Bay, Tham Lod is a tunnel cave that small tourist boats pass through. Nearby, the sea caves of Ko Thalu are popular with visitors in kayaks, but no hongs are known. To the
east, Ko Kudu Yai has three small hongs but it is not known if there is access to them though sea level caves.

With the constant flow of tourists in the area, there are many more sea-level caves and smaller hongs that have been found by local kayak companies. [photo 07]

Photo 7: Karst towers in close proximity and provide a stunning landscape

There are also mainland caves used for kayak tours. On the east side of Phang Nga bay is Krabi province, and 40 km north of Krabi town is Ao Luk. From here tourists are taken to Than Bokkhorani National Park. The main attraction of this park is its waterfalls and flora, but there are also ancient caves, petroglyphs, cave tunnels and mangroves. The canoe tours start at Bo Tho Pier, paddling down the river to Tham Lot Nua (Lot Tai) a 90 m long cave tunnel in a small hill. The southern entrance is 30 m wide and the northern is 15 m. The roof is about 8 m high and there are some nice hanging stal. Daylight penetrates the whole cave. Dusky langur monkeys are commonly seen. [photo 08]

Photo 8: Tham Lot Nua

Tham Phi Hua To is famous for its ancient petroglyphs. The cave is upstream from Tham Lot Nua and only accessible by boat. Concrete steps lead up to the cave entrance, the steps were built in 2525, i.e. 1982 on the Gregorian calendar. Tham Phi Hua To is also identified as Tham Hua Kalok, and is known as Big Headed Monster Cave. A big headed ghost reputedly lived in the cave. There are three entrances and the cave is basically two large chambers, each about 30 m across. [photo 09] The ‘monster’ can be seen on one of the walls. It is a petroglyph, one of several ancient paintings which can be found on the walls. They have been dated at 2000-3000 years old. There are various pictures portraying animals such as fish, dugong, shark and crocodile. In human form there are people, a shaman, and an alien with a triangular head. There are paintings of hands, one of which had six fingers. The paintings are red and black in colour, the red from tree bark and the black from squid ink. The cave chambers go through the hill and are lit by daylight. The back entrance gives a good view over the mangroves to the coast, with lots of limestone hills jutting up. There are lots of shells littering the floor of the cave, once eaten by ancient man.

Photo 9: Petroglyph in Tham Phi Hua

Going upstream from Bo Tho Pier leads to Tham Lod. This is dark, due to a bend which prevented daylight from penetrating. It emerges in a
beautiful hong, circular and surrounded by high cliffs. There are cycads clinging to the sheer cliffs, and oyster shells on the lower walls.

Near the town of Krabi is the very popular beach area at Ao Nang. This includes Rai Ley Bay and Phra Nang Bay. Although part of the mainland, this small peninsula is only accessible by boat from Ao Nang. The area has become a mecca for rock climbers, with hundreds of people climbing every day. There is one lagoon accessible from Rai Ley beach, but instead of entering by sea cave, visitors have to climb up the hill and then down to the lagoon, which is called Sa Phra Nang or Holy Princess Pool.

REFERENCES
