The Ocean Legacy of Malaka and Sustainability in the Straits of Malacca

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Abstract

Malaka or Malacca, established in 1402, grew into an important trading port under the Malaccan Sultanate. The area later administered by the colonial European powers grew in importance as a leading trade route that is now the Straits of Malacca. Over this period, Malaka evolved into a multicultural society with strong linkage to its maritime tradition. The sustainability of the area depends on the international collaboration of the littoral states surrounding these waters particularly in handling the shipping congestion and the management of the marine ecosystem here. The rise in sea level due to climate change will affect the low lying coastal areas fringing the Straits of Malacca and in turn result in associated changes here.

Keywords Malaka, Straits of Malacca, ocean legacy, sustainability, Malaccan Sultanate

Introduction

The name “Malaka” or Malacca is located in peninsular Malaysia fronting the Straits of Malacca named after it. Historically the location of Malaka is founded on the river bank of what is now the present Malaka city. Named after the Melaka tree (*Phyllanthus emblica*) by the Sumatran Prince Parameswara who when resting under it witnessed the mousedeer chasing his hunting dog into the river. Taking this as an auspicious event named the place after the tree. Malacca founded around 1402 developed into a trading port. Parameswara converted to Islam and crowned himself as Sultan Iskandar Shah. During the Malaccan Sultanate (1403-1511), trade developed with India, China, the neighboring states and later the colonial powers of Portuguese, Dutch and English. After the Japanese occupation of peninsular Malaysia during the second world war, Malaka returned to English rule. Subsequently, Malaysia became independent on 31st August 1957. Malaka together with the other peninsular states formed a federation where it remained to this day.

The body of water adjacent to Malacca bordered by Peninsular Malaysia to the east and Sumatra to the west became synonymous with it and was named the Straits of Malacca (Figure 1).
Against this backdrop, Malacca developed a maritime culture leaving a legacy of traditions associated with the multiracial population that inhabits its coasts and the maritime activity that utilizes the straits. It is perhaps relevant to consider the whole of the straits as a natural appendage to Melaka’s culture and development over the past 500 years.

The historical setting of Malacca and maritime trade

Figure 2 provides a timeline of the main events and government of Melaka from the late 15th century to the present day. It also depicts the major influence of several administrations over Melaka which influenced its culture and development.

Maritime influence and early trade

One of the early evidence of trade in the Straits of Malacca was found in an archaeological complex at Bujang Valley (in the northern part of the Straits of Malacca) indicating Indian influence dating from the early 5th century. However Claudius Ptolemaeus (a Greek geographer) famously known as Ptolemy wrote about the Golden Chersonese (the Malay peninsula) in the 1st century AD. This pointed to the trade between India and China which probably influenced the development of later trade in the Straits of Malacca (Wheatley, 1955).

The centre of the coastal city states was the Khmer Funan kingdom (now Vietnam) where a common culture developed which was later influenced by that of India. Trading ports in the Straits of Malacca encompassed the culture of the visiting traders forming cultural dialects of the diverse traders. Evidence of this influence was provided by the many finds of inscriptions, ceramics and monuments excavated in the area dating from 5th-14th century. The administrative powers shaping the culture were the Funan, Srivijaya and Majapahit kingdoms (Heng, 1993) Parameswara himself was a Srivijayan prince ousted by the Siamese in Singapore before fleeing to Melaka.
The Malaccan Sultanate and local governance legacy

On establishing the Sultanate in Malacca, Sultan Iskandar Shah almost immediately set up trading ties with China. Later he visited China with Admiral Zheng He. By paying tribute to the emperor, Melaka earned the protectorate of Ming China, safeguarding Melaka from attacks by Majapahit and Siam. This status also meant that Malacca was the favored port for China and her trading partners from India, Middle East, Africa and Europe.

Ties with China

Later Sultan Mansur Shah (reigned from 1456-1477) of the Melaka Sultanate married the daughter of a Ming Emperor, Princess Hang Li Po and her 500 attendants settled in Malaka. The attendees married the locals and established their unique communities here. Through skillful diplomacy, Melaka developed its relationship with China and grew into an important maritime port until the arrival of the colonial powers from Europe.

The European colonial powers in Melaka

In the 14th century, the rival colonial powers in Europe wanted to extend the trade routes to the east. The Portuguese in Goa, India had been eyeing the trading port of Melaka and eventually under Alfonso de Albuquerque escorted by seventeen ships attacked and took Melaka in August 1511. He massacred the Muslim inhabitants but spared the Indian and Chinese. The Portuguese ruled from 1511 to 1641 but failed to control trade in the Straits of Malacca. This resulted in the decline of Melaka as a trading port.

After several attacks on Melaka, the Dutch under Admiral Cornelius Martelief de Jonge managed to usurped the Portuguese with the aid of the Sultan of Johore. The Dutch rule lasted from 1641 to 1798 but Melaka under the Dutch played a secondary role to their preferred port at Batavia (now Jakarta). The Dutch

landmarks, the Stadthuys, in Melaka lasted until today and is one of the major tourist attraction in Melaka now.

In the Anglo-Dutch treaty of 1824, Malacca was ceded to the British in exchange for the trading town of Bengkulu in Sumatra. The British rule here lasted until 1942 where Melaka in later years formed part of the Straits Settlement. This meant that the British controlled the Straits of Malacca from Penang to the north to Singapore in the south.

Malacca as a World Heritage Site in the 21st century

The Japanese briefly occupied Melaka in 1942. After the Second World War, Melaka returned to British rule. Following the Malaysian Independence on 31st August 1957, Melaka became one of her thirteen states to form a federation.

The population of Melaka now is composed of nearly a million inhabitants of mostly Malays (66.8%), Chinese (26.0%), Indians and Chitty (6.2%) and other smaller communities such as the Kristang (Portuguese creole, Dutch Eurasian) and Temuan (local aboriginal people). This reflects the multiethnic diversity and culture of Melaka's history closely related to its maritime past.

Melaka now known as Melaka is no more a prominent trading port. It is better identified as a historical township with tourism being its main activity. On 7th July 2008 Melaka was inscribed as one of UNESCO World Heritage site. This was based on the UNESCO's Criterion as:

i. important interchange of human values reflected by the Malay, Chinese, Indian and the three colonial powers that influenced the area over 500 years.

ii. bearing unique testimony to a cultural tradition borne by the many buildings, structures and festivals present in the area

iii. an outstanding example of a type of building or landscape which illustrates a significant stage in human history.

This status meant that Melaka now enjoys much of the benefits from its tourism trade. This relies on the preservation of much of its cultural tradition.
Cultures along the Straits of Malacca and ties to the maritime trade

The main cultures of Melaka are described below. Influences from each culture, particularly the dominant ones affect the other cultures here as intermarriage and other community interactions often leave their mark on the resident cultures.

The Malay culture

This is the dominant culture as reflected by the largest population living in Melaka. Much of this culture has had their influences rooted in the traditional cultures of the lands under the Malacca Sultanate. During the sultanate, the Sultan is head of state. He was supported by four palace officials each with their own respective ministry. These are, the Bendahara (Prime Minister), Temenggong (Minister of Internal Affairs, Chief Judge, Chief of Police), Laksamana (Minister of Foreign Affairs, Minister of Defence), and Penghulu Rendahari (Finance Minister). These were in turn aided by eight subordinate officials. This administrative standard was followed by the neighboring states of Perak, Kedah and Pahang who also modelled their financial and social systems accordingly (Sudirman, 2010). Matters pertaining to maritime trade is under the administrative powers of the Laksamana who also ensured safety of passage.

The Malaysian monarchy is derived from the same model. It follows the constitutional monarchy system where every five years the sultan from one of these state is nominated as the King or Yang di-Pertuan Agong of Malaysia. Much of the culture of the Malays originate from the local and Indonesian historical culture with many similarities from both nations. In addition, the common religion of Islam meant that these cultures subsequently developed along those similar lines.

The Baba-Nyonya culture

Following the visit of Admiral Zheng He and the protection offered to Melaka by Ming China, many came from the southern provinces of China to settle here. They intermarried with the locals and formed the Baba-Nyonya community known as Peranakan Chinese. Their travels in the Straits of Malacca meant that these communities establish themselves, apart from Melaka, along the trading routes of Phuket, Penang, Singapore and the Bangka islands of Indonesia. More aligned to the British than to China, they were also known as the Straits Chinese and formed an important component in the trade of the Straits Settlement.

Indian and Middle eastern culture

Other smaller Peranakan communities are the Indian and Arab peranakan communities that remained and settled in Melaka throughout the last 500 years even as trading in Melaka declined. The original culture of the peranakan community remained despite the decline of their native language. It is still common to see these similar cultures such as the traditional wedding ceremonies in Melaka as those from their country of origin in southern India and in the middle eastern countries such Yemen and Saudi Arabia.

Portuguese, Dutch and English culture

The European colonial powers had constructed forts (such as the Formosa by the Portuguese), government buildings and churches during their occupation from 1511 to 1942. Many of which had lasted to this day left their mark as a maritime cultural heritage. There is a small but thriving Portuguese settlement in Melaka at Ujung Pasir known as Saint John’s village. Every year in June, the festival of Saint John and Saint Peter is celebrated by the Kristang folks – as the Portuguese community is referred to here. During this festival, attended by about 100,000 people, decorated local fishermen boats are blessed to assure a plentiful harvest.

Current maritime trade and geopolitics

Even though Melaka has declined as a trading maritime port, its legacy in the Straits of Malacca continues to be an important maritime passageway. In 2016, total traffic in the Straits of Malacca accounted for 83,740 transits, an all-time high then. The Very Large Crude Carrier (VLCC) traffic – the largest tankers carrying crude oil in the Straits of Malacca continues to grow (at 5,793 transits). Container ship segment – the largest segment to transit the Straits in 2016 represent 33% of the traffic. This put the Straits of Malacca as the second busiest shipping lane in the world (Figure 3).
The Straits of Malacca is the main transit route between the Pacific and the Indian Ocean supplying the commodities of the rising economies of Asia. Transit through the Straits and the Suez Canal meant reducing the distance between Europe and the Far East by a third. In the World Economic Forum 2014, the Straits is noted as being one of the world’s important trade route. It mentioned that “of the 87 billion barrels of oil produced per day in 2011, approximately 15.2 million passed through the Straits of Malacca, the shortest route between Africa and the Persian Gulf suppliers and Asian markets. This is some 19 times the amount that passed through the Panama Canal and four times the volume through the Suez canal over the same period (Hirst, 2014).

The main problem in transiting the Straits now is that of congestion. Despite this heavy maritime traffic the narrowest passage is just 1.3 km wide at One Fathom Bank adjacent to the shores of Melaka. China has tried to reduce the congestion of the Straits by investing in the overland pipeline with Myanmar.

As in the past, the Straits of Malacca remained an important sea lane for trade valued by international users and regional powers.

The natural habitats and Straits of Malacca

The International Hydrographic Organization frames the Straits of Malaysia in the geographical areas that stretches from the Southern extremity of Koh Phuket in the north to Tanjung Piai in the South and flanked by Sumatra in the west and peninsular Malaysia to the east. The narrowest portion of the straits is at One Fathom Bank near the city of Melaka and at the entrances to Singapore Straits (IHO, 1953).

There are several types of natural habitats in the Straits of Malacca notably the relatively large mangrove areas some of which is has a very high biodiversity. The largest acreage of mangrove can be found at Kuala Sepetang in Perak and the coastal areas of Sumatra to the south of the straits. Other habitats are coral reefs found in the north at Langkawi, Tarutao and Adang group of islands. Here the turbidity of water can be relatively low allowing the coral to develop into reef communities. Some seagrass beds can also be found in Langkawi and Tarutao. Numerous mudflats fringe the straits. These habitats form important nursery grounds for fish and support important ecological functions. Other significantly large habitats are the coastal mudflats and sandy shores found here. Both mangrove area of Tanjung Piai and Pulau Kukup on the southern part of peninsular Malaysia are RAMSAR sites and are afforded some protection.

These habitats together with the coastal waters are important for fisheries and food security for the littoral states. The Straits of Malacca supply most of Malaysia’s marine tonnage of fish. The largest aquaculture complex for the country is located to the south of Penang where production supply both the local market and is exported to the international markets of US and Singapore (FAO, 2009).
The changing marine environment and issues affecting sustainable development

The Straits of Malacca provides access and livelihood to the coastal populations surrounding it. Accessibility to the hinterland came through many of these littoral towns and it is no surprise that they are the main population centres lining the Straits of Malacca. These population centres grew inland but with the increasingly limited land areas, many coastal towns have relied on land reclamation to extend the boundaries into the sea. Many of the issues of sustainability in these areas are closely linked to the coastal habitation and industries development here.

Rising sea level in the Straits of Malacca

With the advent of climate change and the resulting rise in sea level, many of the coastal areas lining the Straits of Malacca are under threat from coastal inundation and its related issues. Model predictions have shown that increasing sea level in the Straits of Malacca is proportionally linked to the areas that will be submerged. This is true for the areas with low elevation such as the coastal plains and the low lying agricultural areas. Issues related to this are the potential of land submergence, coastal flooding, drainage, saline intrusion and the destruction of natural habitats. Some of these are discussed below:

i. Land submergence and coastal flooding

As the sea level rise much of the low lying coastal areas will be submerged. With unchecked CO2 emission and the current trend in sea level rise, it is estimated that a 61 cm to 1.1 metre rise in sea level is likely within the next century (Vaughan, 2019). Much of the coastal towns will be adversely affected as will the low lying agricultural areas. This include the inundation of coastal area particularly of eastern Sumatra (Langsa, Pengkalan Brandan, Labuhan Deli and Teluk Nibong). On peninsular Malaysia, the low lying coastal plains of Kedah and Perak are at risk.

ii. Drainage

The drainage of natural systems such rivers and man-made discharges from towns and cities into the Straits of Malacca are related to the tidal elevation and geomorphology of the sea front. Changes in these as a result of sea level rise has a significant impact on the drainage system and river discharge, further increasing the risk of coastal flooding.

iii. Saline intrusion

Agricultural crops such as rice are salt intolerant. Much of the rice growing areas on peninsular Malaysia and East Sumatra fronting the Straits of Malacca are in low lying area adjacent to the coastline. Some of these areas such as in the state of Kedah, Perak and Selangor are areas with high potential for sea water inundation. In other areas such as in the Peninsular state of north Kedah and Perlis, where coastal erosion is also an issue, the risk is further magnified.

iv. Destruction of natural habitats

Much of the coastal vegetation in riparian habitats along the banks of rivers and estuaries are sensitive to the salinity of the riverine and coastal waters. The zonation of mangrove plants, for example, follow the saltwater regime that inundate the river banks. Changes in sea level will affect the areas influenced by this regime. In addition, expansion into the hinterland is restricted as often these areas are already taken up by coastal development.

In areas where the underwater natural communities are affected by water depth such as that inhabited by coral reefs and sea grass beds, there will be a reduction in the photosynthetic potential as the light is reduced by deeper waters. For coral reefs living near the upper threshold of reduced light such as in the corals reefs of Pangkor, Cape Rachado and Langkawi the rise in sea level is potentially harmful.

It must be noted certain other environmental changes such as the increased sea temperatures will exert additional stressors on these natural ecosystems. There are already increased incidences of coral bleaching due to elevated sea temperatures in Langkawi and Aceh in the Straits of Malacca in recent years. (NOAA, 2019)
Marine pollution and marine debris

We can consider two main anthropogenic sources of pollution in the Straits of Malacca. Those that arise from the shipping activity and those that are introduced from land-based sources. The high volume of traffic transit in the Straits of Malacca meant that there is always a high potential of maritime accidents and introduction of pollutants into the straits.

Several major river systems flow through highly populated areas into the Straits of Malacca from both the Sumatra island and peninsular Malaysia. This introduce organic pollution (from domestic wastes, agriculture and industries) to inorganic pollution from electronic, chemical and heavy industries. The impact of this can also be seen from the high BOD levels near coastal towns such as Penang, Melaka and Kuala Selangor (Kaur, 2008).

In addition, pollution caused by terrigenous materials such as the introduction of sedimented waters increase the sediment load of the straits. Other pollutants include oil and grease (often discharged from vessels) plying the Straits of Malacca.

Marine pollution prevention in the Straits of Malacca

Malaysia is a signatory to several international conventions that try to prevent pollution at sea. This includes the 1992 Protocol to amend the 1969 International Convention on Civil Liability for Oil Pollution Damage, and the 1973 International Convention for the Prevention of Pollution from Ships. Indonesia prohibits the disposal of waste in the sea from shipping and port activities. Singapore under her Prevention of Pollution of the Sea Act prohibits the discharge of not only oil but garbage and plastics into the sea (Gard, 2014).

Several initiatives have been implemented by the Marine Department of Malaysia to help prevent maritime accidents in the Straits of Malacca and in turn prevent marine based pollution. This include the set-up of NAVTEX (Narrow Band Direct-Printing telegraphy system) for the transmission of navigational and meteorological warnings and urgent information to ships, the implementation of the AIS (Automatic Identification System) on ships and the provision of navigational aids in the straits. Currently the traffic separation scheme operating here help ships navigate safely especially in the narrow portions of the One Fathom Bank.

For land based pollution, entry into the marine waters is through the riverine discharge and introduction of pollution through coastal activities. Malaysia intends to clean up the marine areas by reducing pollution from its sources. In Malaysia, there is an introduction of solid waste recycle programme and the clean river programme (by the Ministry of Housing, Ministry of Land, Water and Natural Resources and Local Government and the Ministry of Energy, Science, Technology, Environment and Climate Change (Department of Irrigation and Drainage, 2017).

Malaysia has also introduced a Roadmap to Zero Single-use Plastic which was initiated in 2018 and targeted to be achieved by 2030. This programme is also expected to reduce the amount of marine plastic pollution in the Straits of Malacca (MESTECC, 2019).

Marine parks in the Straits of Malacca for sustainable fisheries

The Department of Fisheries set up the first marine park for Malaysia at Pulau Payar in the Straits of Malacca in 1994 to ensure sustainable fisheries in the area. This group of four islands is located about 15 nm from the main-land peninsular Malaysia. The island has a three nautical mile no-take zone surrounding them to protect fisheries habitats and fish stock (Department of Marine Park Malaysia, 2018).

In 2019, the second Marine Park was designated at Pulau Songsong in the Straits of Malacca after an exhaustive study headed by the Centre for Marine and Coastal Studies at Universiti Sains Malaysia. Other areas planned for marine protected areas include the fringing coral reefs of Cape Rachado in Melaka.
Conclusion

The diverse culture of Melaka is largely influenced by its historical association to the maritime tradition and the historical powers that administer the state here. This influence gave rise to the varied communities found here both from the local littoral states to the European colonial powers and imperial China.

Following the decline of trade in Melaka due to the development of Singapore and Jakarta the importance of Melaka weakened but the Straits of Malacca continued to play its role as an important international waterway.

Today the Straits of Malacca is the second busiest shipping lane in the world. The sustainability of this important trade route depends on the collaboration of the surrounding littoral states especially in managing the maritime congestion and ensuring security here. In addition the Straits of Malacca comprise of important natural habitats whose health are affected by the anthropogenic activities and pollution from the coastal cities and the international shipping activity.

There has been a significant effort in cleaning up the coasts and waters lining the Straits of Malacca encouraged by the establishment of the World Heritage Sites of Penang and Melaka in 2008. The sustainability of a strong tourism trade in Melaka depends on the conservation of its identity as a multicultural society with strong affinities to the sea.

References


