

# History and Current Status of Underwater Cultural Heritage in Cambodia

Nady Phann

## **Abstract**

Since early times, waterways have been important elements for communication and the most reliable form of transportation providing passage for the movement of people, trade and culture. The first glimpses into the maritime past of Cambodia begin from the legend of the founding of the Khmer Kingdom of which there are various versions. Archaeological evidence of Cambodia's maritime past can be seen submerged in its waterways. For example, a shipwreck loaded with artifacts was recently discovered in territory of the Cambodian sea. Many other wrecks have been reported along the various inland waterways of the country, and have yet to be examined.

It is only now, however, that Cambodia is beginning to progress and build its capacity in maritime archaeology, after the country became the first, and only, Southeast Asian Country to ratify the United Nations Educational, Scientific and Cultural Organization (UNESCO) *2001 Convention on the Protection of Underwater Cultural Heritage*. This paper seeks to present a description of important recent works carried out in the whole country, particularly the survey, as well as define gaps relating to the preservation and management of maritime archaeological resources.

## **Geographical Context**

Cambodia has a long history as a country with an important maritime background. It is situated in Southeast Asia, forms part of the south portion of the Indochinese peninsula. It is bounded on the north by Laos, on the east and southeast by Vietnam, and on the west and northwest by Thailand. In the southwest, Cambodia is bordered by the Gulf of Thailand with a coastline of 435 kilometres (km), which is occupied by four provinces namely Koh Kong, Sihanoukville, Kampot and Kep. To the southeast of the country lies the delta of the Mekong River.

The capital and largest city of Cambodia is Phnom Penh, located at Chaktomuk, which means 'four faces' that relates to the geographical confluence of four rivers - the Upper and Lower Mekong, the Tonle Sap and the Bassac. The city traditionally has been a commercial centre for the Mekong Valley with facilities for transportation by air, rail, river, and highway. It is a major river port, with an outlet to the South China Sea through the Mekong Delta in Vietnam.

Cambodia's most important river and waterway is the Mekong, the longest river in Southeast Asia and the tenth largest in the world. The Mekong runs southward through Cambodia for 486 km that passes through Phnom Penh, where it divides into the geographical confluence of four rivers. Both the Tonle Sap Lake and the Mekong River remain the hub of Cambodia's economy, transportation, and supports fisheries, agricultural irrigation (particularly important for rice production), in addition to cultural activities.

There are several other important river networks in Cambodia including the Battambang rivers (centre of the Sangke River), the Stung Treng group (the Sesan, Sekong and Srepok Rivers), and the Sen River (Kompong Thom).

## **Historical Review of Waterways in Cambodia**

In the past, waterways have been important elements for communication and the most reliable form of transportation, providing passage for the movement of people, trade and culture. Maritime relations were established early between India, China, and the Arabs and then firmed between various parts of the coast of the Indochinese peninsula, the Malay Peninsula and Sunda Islands in Indonesia (Molyvann 2003:6).

However, well before the arrival of foreign navigators, the local populations living along the rivers had established their own fleet of ships and had built cross-community relationships, thanks to continual exchanges along the coasts. The river networks provided the grid along which settlements were established and the Mekong remains the most important natural resource in Cambodia.

The first glimpses into the maritime and waterways of Cambodia begin from the legend of the founding of the Khmer Kingdom. There are various versions of this tale which are beyond the scope of this paper.

The ancient city of Angkor Borei, located in the south of Cambodia, was one of the major population centres of Funan (Pelliot 1903:295). As a result of recent archaeological excavations at Angkor Borei, we now know that a significant population had already settled here prior to the 1st century Common Era (CE)<sup>1</sup> and that the deepest layers excavated dates back to the Bronze Age and thus well before the Age of Funan<sup>2</sup>.

Further to the southeast, another city contemporary to Angkor Borei was built on the coast, previously known as the Gulf of Siam. This city called Oc-Eo (in present day Vietnam) was also a Funan site, and also an important port where foreign merchants came to settle since sea routes from India and the Malay Peninsula probably ended here. The exterior wall of the Oc-Eo site consisted of four embankments with five moats. The principal axis of the site was probably a canal, and the site lay at the heart of a regional network of waterways. Aerial photographs reveal a large network of man-made waterways, which served as drainage channels and irrigation canals. This network of canals, interconnected with each other and to other rivers, was also used for water traffic between population centres found along the Bassac and Mekong Rivers. In areas close to the sea, this system of waterways helped to regulate the degree of salinization from the sea. Waterways in the Oc-Eo region seem to have run from north-northeast to south-southwest, following the general gentle slope of the terrain (Molyvann 2003:8-9).

The system of water management established in Funan became characteristic of Khmer settlements and still persists in many rural areas up to the present. During the 6th and 7th centuries CE, maritime traffic between China, Southeast Asia and India began to shift from existing routes skirting the coasts to more direct routes across the South China Sea from Indonesia to North Vietnam and China. Since Funan depended heavily on maritime trade, its fortunes began to wane and power shifted to a new entity called 'Chenla' in Chinese accounts (Molyvann 2003:42). The territory of Chenla probably extended far to the east and included the Mekong and Tonle Sap River valleys. When Funan was still a prosperous maritime power, the rulers of Chenla probably were still integrated with the ruling class of Funan. However, they were not completely dependent on maritime commerce and increasingly their sources of power stemmed from the inland control of territory and people<sup>3</sup>.

During the Angkor period from the 9th to the 14th centuries, Khmer kings left the Mekong River and migrated inland (Molyvann 2003:13). However, the glory and prosperity of the Angkor civilization was, no doubt, based on its complex hydrography and also on trade that assisted the development of the country into a great riverine power. Numerous images on Khmer temple bas-reliefs illustrate a life settled along

---

<sup>1</sup> A Georgian Calendar designation that starts at the year 1 from the birth of Jesus Christ of Nazareth, with additional years since added one by one.

<sup>2</sup> see Stark, M. "Some Preliminary Results of the 1999-2000 Archaeological Field Investigation at Angkor Borei, Takeo Province" in *Udaya: Journal of Khmer Studies*, (2); 2001

<sup>3</sup> - Funan was so called by the Chinese envoys early in the third century that may be a transcription of a local name *bhnam* (*phnom*), which means "mountain" or "Kingdom of the Mountain". Chenla (Land and Water) are often referred to by these Chinese derived names. With the development of early Khmer civilization these terms can be replaced by the more accurate classification of Pre-Angkorian period

navigable water-courses, fishing activities and a lifestyle attesting to a long tradition of skilled boat construction and watercraft technology.

The three major river systems flowing across the Angkor region today are known as the Puok, the Siem Reap, and the Roluos. The Puok River, which is the furthest west, has a contemporary catchment area measuring 670 square kilometers. The main river is joined in its northernmost sector by a number of tributaries, and flows southwest into the marshes of the Tonle Sap. It is probable that the Puok River supplied water to one of the earliest known historical cities of the region (Choulean, *et al.* 1996:6). Early in the Angkor period the river was partially diverted just below the northern tributaries into an artificial canal known as Royal (Water) fill, to join what is now the Siem Reap river north of the Angkorian urban complex in a village known today.

Recent evidence suggests the Siem Reap River was in fact a canal flowing through the urban complex with its water feeding temple moats and smaller canal systems within the city, as well as artificial reservoirs (Choulean, Prenowitz, and Thompson 1996: 8). This waterway was the principal water course of the capital. Today, as in ancient times, the river continues south of the Angkorian urban complex to flow through the modern town of Siem Reap before discharging into the Tonle Sap near Phnom Krom.

The easternmost of the three main rivers on the plain is the Roluos. This river was exploited to supply an early urban complex known during the Angkorian period (see below) as Hariharalaya, and located just north of the modern town of Roluos. The Roluos River also feeds into the marshes of the Tonle Sap. Many other streams in the area have been modified and channeled to control the flow of water for irrigating sloping agricultural land to the south (Choulean, Prenowitz, and Thompson 1996: 8).

The Tonle Sap flows south from the Kulen mountain range and north from its junction with the Mekong at Cambodia's modern-day capital Phnom Penh. The river flow naturally changes direction twice a year, alternately filling and draining the lake, this is extremely rare if not unique in the world. The same can be said of the complex social practices and technologies that have developed around the Tonle Sap with a particular form of agricultural land use and 'floating' settlement having evolved along the lake in response to this unique hydrology (Choulean, *et al.* 1996:10).

### ***Historical Background***

The Mekong and Tonle Sap River are not only important sources for Cambodia's economy such as transportation, fishing, agricultural irrigation system, but are also essential waterways that play an important role like a door toward the world. This essentially means that these waterways are related to cultural activities. Archaeological evidence of Cambodia's past can also be seen submerged in its waterways.

The southern coastal riverine and maritime port of Kampot (including the town of Kep) was an important staging point for goods and visitors to Cambodia from the early through middle period to the French colonial era that immediately preceded the establishment of a new maritime centre at Sihanoukville in the 1950s (Molyvann 2003:193).

Cities were developed primarily on the plain of Siem Reap-Angkor, which lies in the basin of the Tonle Sap Great Lake. The Angkorian dynasties began in 802 CE, when the first King of Angkor, Jayavarman II was invested with power on Phnom Kulen. After Angkor was definitively abandoned as the royal capital in the 15th century CE, the area today known as Cambodia became a battlefield as a result of numerous foreign invasions. The political capital shifted frequently and the population remained primarily rural and scattered throughout areas of the Mekong River valley.

Phnom Penh was founded in 1431 CE, immediately after the Khmer kings abandoned Angkor (Coedès 1989:22-24). The site adopted for the new capital stretched along the Tonle Sap River. By the end of the 16th century, Phnom Penh was a flourishing mercantile centre populated by Khmer, Chinese, Japanese, Arabs, Spanish, Indonesians and Portuguese. In the 17th century, it had a small river port which received ocean-faring ships owned by Malay and Batavian trade companies (Blancot and Hetreau-Pottier 1997:29).

In the Middle Period (16<sup>th</sup> -18<sup>th</sup> century CE), the royal palace was located at Oudong the capital during the 17th century with a river port at Kompong Luong or 'royal port' - the term 'kompong' adopted from the Malay word meaning 'landing-place'.

The French Protectorate (1863-1953 CE) was established by a treaty signed with France in 1863. This treaty allowed Cambodia to re-establish commerce in the China Sea via the Mekong River and use the port of Saigon (formerly, the ancient Khmer city of Prei Nokor, present-day Ho Chi Minh City) in Vietnam. Under the French Protectorate, the royal palace moved to Phnom Penh that had become a transit point for goods imported from Thailand and Cochinchine attracting Chinese merchants and gradually developing into an urban centre combining business with the centre of royal power (Blancot and Hetreau-Pottier 1997:30).

The port of Sihanoukville (also known as Kompong Som) is located about 225 kilometres south of the capital Phnom Penh on the extreme south of the bay of Kompong Som where it opens onto the Gulf of Thailand. Sihanoukville continues to fulfil an essential role in the integration of Cambodia into the world economy. At present this teeming sea-port hosts vessels of all types in the harbour, including colourful local fishing boats (Molyvann 2003:192-193). The main road from Sihanoukville to Phnom Penh has become the economic lifeline of Cambodia, as it carries seafood, salt and a variety of imported goods to the capital city and beyond.

## ***The Situation of Underwater Cultural Heritage***

### **The beginning of underwater archaeology in Cambodia**

In 2006, fishermen discovered a shipwreck at a depth of 20 meters in Koh Kong province, some 210 km southwest of the capital Phnom Penh. Looting of shipwreck artifacts occurred before the news got out. The ship, approximately 30 meters long and 8 meters wide, has not been closely examined in terms of boat-building technology. However, Chinese characters were found on some of recovered 900 pieces of pottery that were initially dated to the 15th or 16th century CE (Cambodia Daily, February 10<sup>th</sup> 2006).

This event led Cambodia to begin efforts in underwater archaeology. The Cambodian government has asked foreign partners to help salvage and bring up the centuries-old vessel (Cambodia Daily, February 10<sup>th</sup> 2006). In 2007, the 2001 Convention was ratified by the Cambodian government. Over the next two years two Cambodian staff were sent to attend an intensive program on Underwater Cultural Heritage Management in Australia organized by Flinders University. Four others participated in three successive workshops: Foundation Courses on Underwater Cultural Heritage organized by UNESCO Bangkok and the Thai Underwater Archaeology Division (UAD).

In 2010, the Cambodian Underwater Cultural Heritage Unit was created under the General Department of Heritage. After the unit establishment, survey started at the coastline and along the rivers. This program was supported by UNESCO Phnom Penh. Some data collected from the coastline survey is still doubtful because the exact location of the shipwrecks were not located. The verification of all data will be

conducted in the next program when we will have a larger budget and can entail more technical experts.

### Other Underwater Cultural Heritage Sites

We have underwater sites which are not shipwrecks but possess artifacts or sculptures, such as Voeun Kong and Koh Bay Samnom in Stoeng Treng province and Thma Krae in Kratie province. These sites are submerged, near the bottom of the Mekong Rivers. The sites are visible only one month a year during the dry season. Voeun Kong is a relief of sculpture on rock which consists of two crocodiles, one turtle, sun disk and full moon. In a nearby area, there is an ancient brick mound at the bank of the rivers. Koh Bay Samnom is a small island containing some bricks and a stone inscription. At Thma Krae there is also a stone inscription.

### Training and Survey

General training on underwater archaeology research methodology is held at the office of Cultural Heritage. The preliminary training focused on the definition of underwater cultural heritage (UCH), its importance, the kinds of UCH, the research and survey methodology<sup>4</sup>. The activity work plan and bibliography references were listed and distributed to all members to conduct research on documentation and a questionnaire was formulated for the survey in related provinces. Moreover, administrative letters have been sent to all Departments of Culture and Fine Arts in provinces to cooperate and collect data concerning this subject. Data collection is gathered in three ways, research documentation, collection from provinces and the actual survey.

The preliminary survey was directed at the coast in Koh Kong province where a shipwreck was discovered by fishermen. The mission's objective was to train research team members on data collection methodology. Interviews with fishermen at different places were held. A fishermen community was assembled at a Bak Khlang commune for information dissemination purposes that resulted in data collection.

Table 1. List of underwater sites

Site Number	Site Name (s)	UTM Easting	UTM Northing	Province	District	Location
1	Shipwreck			Preah Sihanuk	Mithapheap	Near Koh Russei (GPS Boat 230.70 - 26.27)
2	Boat			Preah Sihanuk	Stoeng Hav	Around 4.5 km West of Preah Sihanuk city and 1 km in front of La Toek Trei of Koh Rung.
3	Craft			Prah Sihanuk	Stoeng Have	5 km West from Praek Traeng (Praek Traeng is 9 km North East of Preah Sihanuk City).
4	Boat			Preah Sihanuk		Between Koh Rung and Thma Sa. 1 hour by boat from the coast.
5	Shipwreck			Koh Kong	Kirisakor	20 km from Koh Sdach Coast.
6	Ship			Koh Kong	Mondul Seima	2 km from the coast of Pak Khlong.
7	Ship			Koh Kong	Srae Ambil	
8	Shipwreck			Kratie	Kratie	in Mekong River, 2 km North of Kratie Town.

<sup>4</sup> This project is supported by Unesco Phnom Penh and the training is taken place at Ministry of culture and Fine Arts in Phnom Penh, in June 2010.



Site Number	Site Name (s)	UTM Easting	UTM Northing	Province	District	Location
9	Ship			Kampot	Kampot	3 or 4 km from the coast.
10	Wreck			Phnom Penh	Russei Keo	In front of Vat Pothi Proek
11	Ship			Preah Sihanuk		Near Koh Tang. Ship left from Bangkok to Signapor
12	Wreck			Koh Kong	Botum Sakor	Between Poy Lam Thean and Island.
13	boat			Koh Kong	Botum Sakor	200m from the path of Ta ok.
14	Kor (T.)			Kampong Cham	Bateay	Near Road national 6, located at flood plain of Mekong main stream.
15	Ship			Kampong Cham	Kampong Siem	

## Legislative Framework and Institution

Cambodia has no specific laws for the protection of UCH. The law on cultural heritage protection, which was adopted by the National Assembly in 1996, focused on general cultural heritage that states a cultural property is, “considered to be any work produced by human agency and any natural phenomenon of a scientific, historic or religious nature which bear witness to a certain stage in the development of a civilization or of the natural world and whose protection is in the public interest” (Article 4). In 2002, a *Sub Decree on enforcement of Cultural Heritage Protection*, focused specially on cultural property including underwater artefacts. The decree states that cultural property is all kinds of movable and immovable Cultural Property came from terrestrial and *underwater excavation*, legal or clandestine and archaeological discoveries (Article 4 (a)).

The General Department of Heritage has existed since 2008 and is responsible for all tangible evidence of human activity. One of the four Departments, the Department of Archaeology, under the General Department is responsible for archaeological activities on land and at sea. Prior to 2008 underwater activities were unknown.

The Heritage Police was recently created under the Ministry of Interior in close cooperation with the Ministry of Culture. They are in charge to, “investigate criminal actions, arrest, hold in custody and search those involved with the destruction, theft, harboring, armed robbery, buying, selling and transport of cultural and historical heritage. Prepare reports and send the arrested party, along with supporting evidence, to the tribunal”. However, these forces work only on terrestrial archaeological sites.

The data gathered from the surveys related to underwater archaeology along the coastal villages and islands help us gather information about site locations and sea travel. Much of the information collected have not been verified thus far. We do not know exactly either the kinds of sites Cambodia entails nor their condition? The collected data in this paper is only preliminary<sup>5</sup>. We need the technical expertise and equipment to verify these submerged cultural data.

<sup>5</sup> Report is in progress of publishing

## Abbreviations

APSARA	Autorité pour la Protection du Site et l'Aménagement de la région d'Angkor
EFEO	Ecole française d'Extrême-Orient
BEFEO	Bulletin de l'Ecole française d'Extrême-Orient

## Bibliography

Choulean, A., Prenowitz, E., and Thompson, A., 1996	<i>Angkor: A manual for the Past, Present, and Future</i> , APSARA, Royal Government of Cambodia, Phnom Penh.
Blancot, C., and Hetreau-Pottier, A., 1997	"1863-1953, une ville neuve dans un site d'occupation ancienne" in <i>Phnom Penh, développement urbain et patrimoine</i> , Ministère de la Culture, Département des Affaires Internationales, Paris. pp. 29-43
Coédès, G., 1989	<i>Articles sur le Pays Khmer</i> , EFEO, Paris.
Dagens, B., 1995	<i>Angkor: Heart of an Asian Empire</i> , Thames and Hudson and Harry N. Abrahams, London & New York,
Delaporte, L., 1880	<i>Voyage au Cambodge</i> , Delagrave, Paris,
Pélliot, P., 1903	"Le Fou-nan", <i>BEFEO</i> , tome III, Paris,
Stark, M., 2001	"Some Preliminary Results of the 1999-2000 Archaeological Field Investigations at Angkor Borei, Takeo Province", <i>Udaya: Journal of Khmer Studies</i> , n 2, Phnom Penh
Molyvann, V., 1999	<i>Les cités khmères anciennes</i> , Toyota Foundation, Phnom Penh,
Molyvann, V., .2003	<i>Modern Khmer Cities</i> , Reyum, Phnom Penh,
Da, y., 1995	<i>Khmer Boat-racing</i> , Diploma in Archaeology, Faculty of Archaeology, Royal University of Fine Arts, Phnom Penh,