

Kapata Arkeologi, 17(1) 2021, 21—32 p-ISSN: 1858-4101, e-ISSN: 2503-0876

KAPATA ARKEOLOGI

SCIENTIFIC JOURNAL OF ARCHAEOLOGY AND CULTURAL STUDIES

Accredited by the Indonesian Ministry of Research, Technology, and Higher Education (RISTEKBRIN)



entressente

http://kapata-arkeologi.kemdikbud.go.id/

MARITIME IN THE LITERARY WORKS DURING THE KADIRI-MAJAPAHIT PERIOD (XII –XVI CENTURIES)¹

Titi Surti Nastiti 匝

Pusat Penelitian Arkeologi Nasional Jl. Condet Pejaten No.4, Jakarta Selatan 12510, Indonesia titi.surti@kemdikbud.go.id

Received: 22/07/2019; revisions: 03/10/2019 - 15/05/2020; accepted: 03/06/2020

Abstract

The kingdoms of the Old Javanese period were known as agrarian. However, this does not make these kingdoms only engaged in agriculture but also the maritime sector. Much information that contains maritime culture and activities during the Old Javanese period was acquired from various archaeological and textual data such as ancient inscriptions, foreign records, and texts. Textual data used as sources segmented into primary and secondary sources. Primary sources are considered more accurate than secondary sources because the primary sources record many events written at that time. Textual data that are considered primary sources are ancient inscriptions and foreign evidence such as the Chinese Dynasty *tambo* and European records, mostly Portuguese. Meanwhile, secondary sources such as ancient manuscripts, mainly ancient literary texts. This study aims to reveal various affairs related to maritime activities in the Old Javanese period, especially those expressed and portrayed in ancient literature. By the initial study, ancient literature from the Kadiri-Majapahit period contains many things related to maritime culture, both types of watercraft, shipwrecks, pirates, and the activities of the people who lived in the seacoast environment. The method used in this study is descriptive analysis with a qualitative approach. This study shows not much description of the maritime culture in Old Javanese inscriptions as the primary sources. However, it figures prominently in literary texts that contained many interesting facts. Historical information about maritime affairs in the Old Javanese period can be interpreted in more detail with supplementary information from literary texts as secondary sources.

Keywords: maritime; boat; shipwreck; literary works; Old Javanese literature

INTRODUCTION

Austronesian culture-speaking people are great seafarers, as evidenced by their voyages from the Formosa Islands, Taiwan, to the Indonesian archipelago around 3500 BC (Simanjuntak, 2015). The Austronesian culture-speaking people, which later developed in the Indonesian Archipelago and knowing the maritime culture, also know the agrarian culture to get their primary food needs. The description of the Austronesian people's agrarian and maritime cultures' closeness was expressed in their daily life activities such as boat decorations, tattoos, rituals, and rock arts on cave walls (Bellwood, 2006). The rock art painting of a boat with two masts in the karst cave of Sangkurilang, East Kalimantan, depicts Austronesian boat technology advancement. This boat technique allowed them to sail across the high seas to the islands of the Indonesian archipelago. Maritime and agrarian traditions continued to develop until the Majapahit era from the 13th to 16th centuries. During the Majapahit period, maritime and agrarian cultures developed rapidly and supported each other. Abundant agricultural resources have become trading commodities to various islands in the Indonesian archipelago, Southeast Asia, West Asia, Central Asia, East Asia, even Africa (Nugroho, 2011: 314).

From the 7th to 16th centuries, official positions to authorized marine affairs were established during the Kadiri Kingdom in the 12th century during the Hindu Buddhist period. In the *Jaring* Inscription from the year of 1103 *Śaka* (1181) issued by the Śrī Mahārāja Śrī Kroñcāryyadipa Haṇḍabhuwanamālaka Parākramānindita Digjayotunggadewanāma Śrī Gandra. The official position is called *Sang Apañji A[..]takěn* (manambah i lbū ni pāduka śrī mahārājā makasopana

doi) : 10.24832/kapata.v17i1.21-32

©2021 Kapata Arkeologi – KEMDIKBUDRISTEK. This is an open access article under the CC BY-NC-SA license Accreditation Number: (RISTEKDIKTI) 51/E/K PT/2017.

¹ The topic article, titled "Kemaritiman dalam Data Tekstual pada Masa Kadiri-Majapahit" was presented at the 2017 *Pertemuan Ilmiah Arkeologi* (Archeology Scientific Proceeding) in Bogor. This article rewritten in a different perspective from the one presented.

senapati sarwwajala sangapañjya[...]akěn, which is held by *Sang Apañji* = worshiping the dust of Pāduka Śrī Mahārāja (Brandes, 1913: 165; Sedyawati, 1994: 295). The title *Senapati sarwwajala* cannot be read clearly but can be confirmed as the title *of Sang Apañji*. This official position is the first mentioned in the inscription, which means "commander of all territorial waters."

According to Sedyawati (1994: 295), Senapati sarwajala is an official position that develops into a stable administration to manage the watering system in most kingdoms in East Java. Also, in the Hantaŋ inscription, which dates to 1057 Śaka (1135), there is a new profession in the list of manilala drawya haji (= tax collector) associated with sea voyage, this profession is called undahagi lañcaŋ, which is an expert in making boats (of wood). Although the previous period's inscriptions, such as the one from the Old Matarām era in the 8th to 11th centuries, explain tax rates based on boats' types, it has not been managed professionally because the boatbuilders are not taxed. Probably during the Kadiri era in the 12th century, these boats were more sophisticated, and sea voyages and trade flourished.

During the Majapahit era, the Nāgarakṛtāgama text mentions the names of official positions related to maritime affairs. This position is called *jaladhimantri*.² However, in a verse that writes about *jaladhimantri*, it does not mention the title and name. Another position related to water territory, in this section, is a river, the official who manages it has a title called *pañji*. The duties of these positions are called *anambani sayawadwipa-mandala*, that is, a person who coordinates the miners throughout Java. In the Cangu inscription, there are 33 mining locations based in the water traffic network, and 47 places are called *naditira pradeśa* (Sedyawati, 1994: 296).

The maritime activities in the inscriptions and references to Foreign record texts during the Kadiri-Majapahit era were never written explicitly. The existence of maritime activities can be identified based on official positions related to the management of water territorials, both rivers and seas. Also, it is known from various terms such as *baniaga* and *banigrama* or *banigrami*, which mean male or female traders or merchants; commodity goods that are traded originating from outside the Indonesian archipelago; types of boats or ships; envoys from any kingdoms from Indonesian archipelago to China; as well as foreigners who came to the Indonesian archipelago (Hirth & Rockhill, 1966). Many statements written in various reference sources can

be interpreted as maritime activities, especially sea voyages and trade. The Indonesian Dictionary (KBBI) explains that '*maritim*' (maritime) term means various things related to sea voyages and trade at sea or maritime activities (Tim Redaksi KBBI, 2018).

Since maritime has become a national issue, many writings have been on maritime topics from various science fields, including archeology. The writings on maritime themes in archeology are very diverse, including the maritime paradigm in archeology (Mundarjito, 2007) and theories that can be applied to maritime issues (Thufail, 2018), preservation and development (Sadzali, 2019), traces of maritime archeology from Prehistoric times to Colonial period (Indradjaja, 2017; Purwanti, 2018), and others. The most published scientific references to the Hindu Buddhist period are maritime themes in Sumatra from the Srivijaya era (7th to 14th centuries) and in Java from the Ancient Matarām Kingdom (8th to 11th centuries) to Majapahit era. Research on maritime themes during the Sriwijaya era generally discusses trading activities, ports, and types of commodities (Rachmad, 2019; Sadzali, 2019; Siregar, 2018; Utomo, 2018), while research on maritime themes in Java tends to be more diverse. Nugroho (2011), although his book is entitled "Majapahit Maritime Civilization," but the content more discusses the historical evidence of the breadth of trade networks and voyages activities of the many kingdoms in Java, from the ancient Matarām period to the Majapahit era. Tjahjono (2017) still questions whether the Ancient Matarām Kingdom was maritime or agrarian. Even though it was known as an agrarian kingdom, several aspects could be categorized as maritime. Suhartono (2018) tries to identify maritime society's characteristics during the Hindu Buddhist era based on relief at Borobudur Temple. Winaya (2018) examines the initiation of the concept of "Nusantara" during the Singhāsari Kingdom from the 13th century. This concept is intended to unite the territory of power in the government system, a country's awareness of the maritime area under its control. Rahmawati, Riyadi, & Rizaldy (2019) examined the Bengawan Solo River as a trade and transportation route during the Majapahit Kingdom.

Most of the historical study on maritime themes, as mentioned above, refers to archaeological and textual data, including inscriptions and ancient foreign reference sources. Ancient foreign references are considered primary data sources, such as the *tambo* Chinese Dynasty

² The full text is as follows: irika tan anyabhūmi sakhahěmban iŋ yawapurī, amatěh i sajña saŋ nṛpati khapwa satya rin ulaḥ, pituwi sin ājñālanghyana dinon/ wiśirnna sahana, tkap ikanaŋ watěk/ jaladhyamantry aneka suyaśa (Pigeaud, 1963: 13).

Then, of course, other lands, anywhere, that are in the guardianship of the Javanese court,

obedient to the orders of the venerable Prince, equally, faithful in conduct.

even if there are order violators, they are eradicated

by troops under various [and] illustrious marine officials

and voyage records of European foreigners who came to the Indonesian archipelago. Most local old literature contained fiction, was considered secondary data sources, and usually was not used as a factual reference. In contrast to Nugroho (2011), his research uses ancient local literary works as a reference to explain sea voyages and trade and the political history of the kingdoms in the Indonesian archipelago so that there is no clear description of maritime activity in the ancient literary text. Is it only limited to sea voyages and trade, or is there more information? Regarding old local literature, Sedyawati (1986: 639) argues that although ancient foreign references are considered the primary data source, the substance of these references is limited to the point of view of the author's subject in the foreign countries visited, so usually only write exciting things for them.

In contrast to old local literary works written by someone who lives in a real community, the author likely observes the surrounding conditions. Apart from writing fiction, the author may also be writing about actual circumstances. Therefore, this study aims to discuss maritime activity in Old Javanese old literature, such as Kakawin Sumanāsantaka, Kidung Harṣawijaya, Kidung Sundayana, and Kakawin Ghatotkacaśraya. This study's scope of discussion is the period of the Kadiri to Majapahit from the 12th to the early 16th century. The reason for this period is that during the Kadiri era, an official position in charge of maritime affairs was formed, and boatbuilders were taxed, which means that boat manufacture at that time had started to be managed professionally.

METHODS

Textual data consists of inscriptions and ancient foreign references categorized into primary reference sources, besides texts, especially ancient literature categorized as secondary reference sources. Various studies on sea voyages and trade during the Old Javanese period tend to refer more to inscription and foreign reference data sources as considered the primary reference sources, while local ancient literary works are categorized as secondary reference sources. To get a description of maritime affairs, the method used is descriptive-analytical with a qualitative approach. Old Javanese ancient literature related to maritime affairs was selected, described, translated, then analyzed. Local old literature, especially from the Kadiri to the Majapahit era, is studied to identify these texts' maritime activity with Old Javanese Dictionary by descriptions Zoetmulder (2004). The process of obtaining data on maritime activities from textual data, especially ancient local literature, is relatively complicated. Therefore, the first search for textual data is to look for several terms related to the sea, such as ocean / samodra, sagara, *jaladhi*, coast, types of boats, and others. The next search is looking for a description of people's interaction with maritime culture. Based on tracing this data, it is expected to assemble how people's activity is related to water. In local ancient literature, various types of boats are often written, both large, medium, and small, as a means of transportation at that time. To describe the types of boats at that time, refer to the types of boats in the temple reliefs. This study identified the reliefs in three temples depicting boat-shaped objects, including Borobudur Temple, Jago Temple, and Panataran Temple. It also determines whether the boat's objects and maritime activities written in old Javanese literature are still present today.

RESULT AND DISCUSSION

The inscriptions contained information regarding maritime affairs related to sea shipping and trade are usually not explicitly explained. Following the data characteristics, which is information from royal officials, both the king and other high officials, the information is short as needed. This information is usually contained in the sambhanda (the reason for making the inscription). Apart from the sambhanda, the section that contains the manilala drabya haji (the official in charge of taxes), there is information about commodity goods, means of transportation (boats, carts, horses), foreigners people who are subject to tax (kilalan residents), and craftsmen such as wicker makers, brick makers, boatbuilders, and others. There is also an explanation section regarding items gifted to those present at the *śīma ceremony*. Among the gifts presented were imported goods such as fabrics made in the North (kain bwat lor), fabrics made in the East (kain bwat waitan), and wdihan made in Kalingga, India (wdihan bwat kling putih) (Nastiti, 2003: 49; 2016: 59).

Researchers of ancient history interpreted the contents of the inscription based on fragmentary data information. For example, from various types of goods subject to tax, it is known about trading lists goods. Trading activities, of course, need a market as a transaction place. Thus, it is known the types of goods trading in the market. How the traders bring them to the market, in the description of the *manilala drabya haji*, it is mentioned that there are types of transportation such as carts (*magulunian*), boats, and riding horses. Based on this information, it is known that there are trading activities. For shipping activities, it is known by the mention of foreigners as *kilalan* residents or imported goods originating from outside the Indonesian archipelago.

Meanwhile, from ancient Foreign record texts, for example, from the *tambo* of the Chinese dynasty, it is

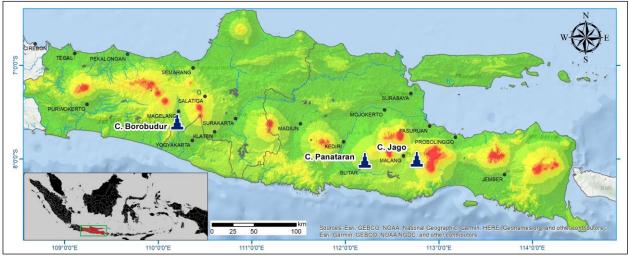


Figure 1. The location of Borobudur Temple, Panataran Temple, and Jago Temple (Source: ArcGIS Database (2019) modified by Author, 2019)

known about envoys of the kingdoms from the Indonesian archipelago came to China in the year 430 AD (Wheatley, 1959). That information illustrated that the Indonesian archipelago people were seafaring communities who used to sail the vast oceans. According to Wolters (1967: 38), shipping and trade between the Indonesian archipelago and China occurred between the 3rd and 5th centuries. Sea voyages from the Indonesian archipelago to China, of course, require a large boat that can navigate the vast oceans. The types of boats used by seafarers and fishers in the Indonesian archipelago can be seen from the temple reliefs and inscriptions' depictions and local old literature.

Types of Boat

In inscriptions, the mention of river transportation is generally called a boat. For example, the Kamalagyan inscription from the year 959 Śaka (1037) states:

(12) kapwa ta sukha manah nikaŋ maparahu samanhulu manalap bāṇḍa ri hujuŋ galuh tka (13) rikaŋ para puhāwaŋ para baṇyāga sanka riŋ dwīpāntara.



Figure 2. Three types of outrigger boats that can navigate the vast ocean depicted on the reliefs of Borobudur Temple (Source: Author, 2019)

(= everyone is happy, people sailing upstream the river to collect trading goods at Hujung Galuh, [those who] come there [are] boat skippers [and] traders from other islands (Nastiti, 2003: 49).

The inscriptions contain little information about the types of boats. Several known types of boats include *banawa* with *tundan* (deckhouse structure on boat platforms, decks), *masunghara* boats (sailing boats), and *pawalijan* boats (trading boats). Unlike the inscriptions, in ancient literature, the types of boats are quite diverse, although the term 'boat' is used generally. Local ancient literary texts mention the types of boats, including *parahu* (standard boats), *jong* or *jung* (a type of small boat), *jukung* (jukung boats), *banawa* or *banawi* (boats or ships), *layar* (sailboats), *pelang* (local trading boats), *potra* (ships of regional or international traders), *těmpon* (small boats larger than jukung), *balandongan* (canoe), and others.

Dugout boats or primitive boats are simple boats that are not equipped with outriggers or balancing instruments and sails. In the absence of these two components, this boat has a limited cruising range, only in rivers, estuaries, and coastal areas. The boat without an outrigger has a sail that functions to regulate the wind force as the boat's driving direction. With these sails, boats without outriggers have a farther cruising range than primitive boats. Outriggers boats are a type of boat with a balancing instrument in the form of an outrigger and a sail to sail through the open seas Wahjudi (2014: 67).

From several temples in East Jawa, the depiction of boats is only found in Candi Jago's relief from the Siŋhasāri period and Candi Panataran from the Majapahit era. A small rowboat depiction in Jago Temple's relief. On the reliefs of Panataran Temple, there are two reliefs parts depicting boats, the first is a rowboat carved on the base of the *pendopo*, and the second is a



Figure 3. Types of boats without outriggers carrying passengers depicted on the reliefs of Borobudur Temple (Source: Author, 2019)

Based on the tracing of several local classics literature, there are different types of boats. Large ships used for sea voyages or classic boats used to navigate the river or mining canoes to carry passengers on both sides of the river. However, until now, the shape of the boat is still challenging to identify. Up to now, descriptions of boat types have only been found in reliefs in three temples, includes Borobudur Temple (8th century) in Magelang, Central Java; Candi Jago (13th century), in Malang, East Java, and Candi Panataran (14th to 16th century), in Blitar, East Java. Among the three temples, the one that most describes boats is the Borobudur Temple. Ten reliefs depict large sea-going boats and small boats commonly used in rivers in this temple. According to van Erp (1923: 227-255), among the ten types of boats, there are three types of boats, a simple dugout boat, a dugout boat raised with outriggers, and a dugout boat raised without outriggers.

sailboat carved on the main temple. The boats and their passengers depicted on Candi Jago's reliefs are almost invisible and tend to be obscured by the waves' relief. Likewise, the relief on the *pendopo* of Candi Panataran only shows the boat's back end with two passengers in it.



Figure 4. Types of simple boats depicted on the reliefs of Borobudur Temple (Source: Author, 2019)



Figure 5. Types of simple boats found in the reliefs of Borobudur are still used along the Solo River and the Brantas River as roping boats that serve passengers from both sides of the river (Source: Author, 2019)



Figure 6. Reliefs depicting rowing boats at Jago Temple (Malang) and Panataran Temple (Blitar), East Java, which depiction is very different from that of Borobudur Temple (Source: Brandes, 1904 photo No. 97 and Kempers, 1980, photo No. 30-31)



Figure 7. The boat remains from the 7th-8th century found in Punjulharjo, Rembang, Central Jawa (Source: Balai Arkeologi D. I. Yogyakarta, 2000)

The only intact remains of the ancient boat features were found in Punjulharjo Village, Rembang Kota District, Central Java, located 500 meters from the shores. This ancient boat, known as the Punjuharjo boat, is 15 meters long, and the remaining section is 4.8 meters wide. The long part of the boat is still relatively intact, but the width is fragmented because many planks are missing. Based on carbon dating analysis, it is known that this boat comes from the 7th to 8th century (Abbas, 2009: 48-50). Abbas (2009: 46) mentions that Y. P. Manguin, who inspect the boat, said Punjulharjo boat is one of Southeast Asian natives. Based on research in Punjulharjo, Sadzali (2018: 54) concluded that boat technology in the Indonesian archipelago was already developed in the 7th century. At that time, sophisticated sea-going boats were capable of sailing through oceans with transcontinental distances.

During the Majapahit era, a type of boat was commonly used among aristocrats, namely a boat that imitated the Chinese "jong," which had nine decks. Folksong, namely *Kidung* Sundayana, described the event when the King of Sunda was leaving for Majapahit. Apart from mentioning the various types of boats, it is said that the King of Sunda used the "jung" boat, a type of boat that became popular after Raden Wijaya attacked the Tartar army. The text stated: 43. Mudik lari ning bahitra amasang kilat layarnya angrawit, kuněng sipāna sang prabhu, jong sasanga wanguna, ring Tatar-nagarī, tinirwane dangu, wus ing prang śrī wijaya bhrasta (Berg, 1931: 2).

(= Walk towards the ark, put on the sailing ropes, and hold it, while the ship of Sang Prabhu is a jong with nine decks (?), From the land of Tartar (China) imitating from the past after the war of King Sri Wijaya who destroyed Kadiri).

Shipwreck

Compared to inscriptions and ancient foreign reference texts, ancient literary texts contain more complete stories to obtain more information. Apart from the types of boats, there are many related to maritime affairs such as sea, coast, traders, and human activities from the search for words. From searching for words in ancient literary references related to the sea, ships, and traders, various things about maritime affairs and human activities can be seen that are not written in inscriptions or references to ancient foreign texts. For example, how weather factors significantly affect a sailing ship is described in the Song of Harşawijaya as follows:

2.101b. Jong agung ri tělěng ing pasir pilih yan anabrang kaputěr de ning ryak agung runtuh layarnyânisih majar yan majayanya wus ěnti lwir těngran ing ratu kasoran ing jurit (Berg 1931:84).

(= There is a big boat in the middle of the ocean. If a big wave hits sailing to the other side, the sails fall on both sides, telling if the sailors are not leftover like a king lost in a war).

Mpu Monaguna describes other information regarding sea conditions in Kakawin Sumanāsantaka, which mentions hawks and fishing boats. Besides, it also likens the deck of a boat that survives a shipwreck to resembling a flying crane. In this verse, moreover explaining about fishing boats, the deck of the boat, it also contains information about the shipwreck, as described in the following verse 33.4:

33.4 mambö sāgara ramya ning langit awarņa tali hurut-urutanya tan pēgat

kalangkyangnya bangun jukung ning amayang lěyěp i lari nikâmaděm darat

kuntul mör kadi tuṇḍan ing banawa kāri tan ilu kajahat lanâyar

sang hyang candra bangun bahitra ḍatĕng ing kulĕm amawa śaśā marê Jawa

(= A beautiful sky resembling an ocean and a continuous string of clouds like a rope.

The eagle is like a fishing boat that disappears from view as it sails towards land.

The flying crane resembles the deck of a boat that survives a shipwreck and continues to sail.

The holy moon is like a boat filled with rabbits at night sailing to Java.) (Worsley, Supomo, & Fletchert, 2014: 172-173).

Based on these textual data, people probably encountered shipwrecks at that time. The shipwreck description in the Kakawin Sumanasāntaka is not only in this verse but also in many other verses describing shipwrecks. Besides, *Kakawin* Sutasoma also wrote about this shipwreck, as written in verse:

90.5 Wwai mumbul ri těngah nya śuddha mahěning waringin ika rumambayāhěb aruhur

mīnākweh kumĕḍap-kĕḍap ri teka ning panas asĕmu maṇik suteja gumiwang,

Tūsnyamalabar kinĕmbung umareng sawah asĕmu samudra hanghalun-halun,

Wṛkṣagöng rĕbah ing tĕpi nya ya mawarṇna bhanawa kajahat hañar-katarah.

(= In the middle of that place, there is freshwater gushing, where there is a large banyan tree with many branches,

Inside were various kinds of fish by the light of the sun, twinkling like jewels shining brightly,

The water stream flows into a big river with big waves like the ocean flowing into the fields,

A large wooden beam lay on the banks like a shipwreck that had just been hijacked (Mastuti & Bramantyo, 2019: 2019).

This verse is known; although it is only a metaphor of a wooden beam that resembles a shipwreck, it contains information that this ship sank because of being hijacked. So it can be described that ship piracy was common at that time, which means the dangers that threatened fishing boats and sailing ships were caused by weather factors such as storms and hurricanes also human factors. A dangerous human factor is pirates who roam the oceans looking for victims. Sometimes after looting valuables, the hijacked ships were burned, and then the ship sank and was stranded on the seafloor.

The statement of a shipwreck in old literature is proven by discovering wrecks objects in Indonesian water territory. Based on the Kementerian Kelautan dan Perkanan (Ministry of Maritime Affairs and Fisheries / KKP), Indonesia has the potential for a high number of shipwreck objects (Admin KKP, 2018). Referring to the latest data released by the Research and Development of KKP in 2000 regarding shipwrecks, that there are 463 location points, and to date, only 20% have been verified, and 3% have been explored. The distribution of shipwrecks is mostly in the water area of the Riau Islands, Karimata Strait, Bangka-Belitung Waters, and the Java Sea. Most of these ships carried commodities and goods from China, West Asia, and Europe, such as the Netherlands (VOC), England, and Spain (Admin KKP, 2018; Tim Humas DJKN, 2019).



Figure 8. A Japanese patrol shipwreck that sank during World War II on Amed Beach, Abang District, Karangasem Regency (Source: Balai Arkeologi Bali, 2016)

Until now, the remains of shipwrecks objects have been found scattered in Indonesian water territory. The shipwreck sites found in the Cirebon waters area in the Java Sea territory and Kepulauan Seribu were from the 10th century. The shipwreck sites found in Teluk Sumpat and Heliputan Site in the Riau Islands were from the 17th to 20th century, identified as VOC ships and Portuguese. Also, there is a shipwreck site from World War II at Amed Beach, Bali. All evidence of the shipwrecks object provides information that the information in classic Javanese literature is more than a description of the fiction but supported by facts found in the present.

Fishermen's Activities

The *kawya*, or the author of old literature, wrote about shipping and trade, moreover the activities of the fishermen community. Mundarjito (2007: 10) mentioned that maritime archeology focuses not only on shipping and trade but also on various human activities with the water environment, both in the sea, lake, and river.

Various information regarding the activities of the fishermen community is found from the Dhimaṇāśrama inscription (Brandes, 1913: 245) issued by Pu Siṇdok (929-948). In the inscriptions, various terms related to fishing activities are found, such as *amayaŋ* (fishing with a kind of trawl), *amukět kakap* (catching snapper), *amukět krp* (catching krp), *añjala* (fishing), *añjalāwirāwir* (fishing with *awirawir* nets), *añjala bsār*

(fishing with large nets), *amuwūmuwū* (catching fish with traps), *amintur* (catching crabs), *añjariŋbalanak* (fishing for mullets), *Jariŋ kwaŋkwaŋ* (catching *kwaŋkwaŋ*), Jariŋ *kakab* (catching snapper), *amibit* (fishing for fish), *wariŋ sugu* (catching shrimp with wariŋ *sugu*), *wariŋ tuṇḍuŋ* (catching shrimp with *wariŋ tuṇḍuŋ*), and *wariŋ taḍah* (catching shrimp with *wariŋ taḍah*) (Nastiti, 2003: 81).

In the *Kakawin Ghatotkacaśraya*, there is a description of women activities in the fishing village, as stated in verse:

9.2 karanda iña len uwâwruh irikaŋ sayogya pananěn.

ulihin apikat mamañcal amibit kabeh rinatĕnan. aneka para pawwatin juru samâtĕka sapasisi sĕsĕk pĕnah ikan bhinakti tuna raśmi teki wĕkasan (Wirjosuparto, 1960: 23).

(= widows, mothers, and other women know various edible ingredients.

The catch from the trapping nets on their boats, as well as their fishing, has all been cooked into a fish curry.

The fish that were offered by the workers who came from all over the coast were of various colors.

The foods were abundant to eat; eventually, people do not think it is delicious anymore (Wirjosuparto 1960: 124).



Figure 9. Drying the salted fish in Gresik, East Java is usually done by women (Source: Yulinnas, 2016)

This text shows community activities when fishers have managed to gather fish by setting net traps from their boats or fishing with abundant yields. To select edible and inedible fish, the fish caught are sorted out by women, both widows, mothers, and girls. Selected fish were processed into various dishes. The variety of fish served can be identified based on the types of food served at the sīma (the area with certain privileges) mentioned in several inscriptions. For example, the Pangumulan inscription in 824 *Śaka* / year 802 (Nastiti 2003: 136) and the Gulung-gulung inscription year 851 *Śaka* / year 929 (Wurjantoro, 2018: 175, 185) mentions the types of marine animals such as sailfish (*Istiophorus platypterus*), snapper (*Lates calcarifer*), pomfret (*Stromateus cinerues*), yellowstripe scad (*Selaroides leptolepis*), chub mackerel (*Rastrelliger faughni*), and shrimp (Crustacea). During the ancient Javanese period, sea animals used for consumption, apart from fresh marine

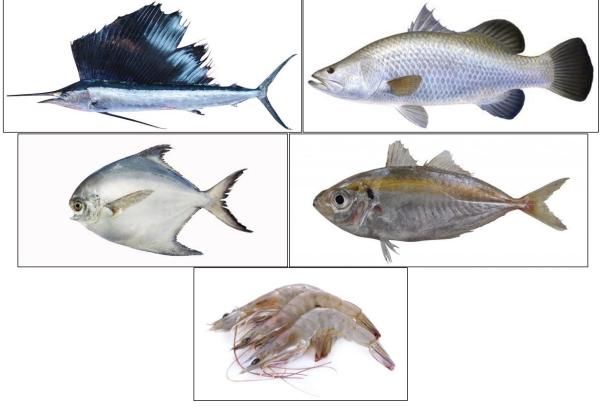


Figure 10. The types of marine animals from left to right, top to bottom: sailfish (*Istiophorus platypterus*), snapper (*Lates calcarifer*), pomfret (*Stromateus cinerues*), yellow stripe scad (*Selaroides leptolepis*), chub mackerel (*Rastrelliger faughni*), and shrimp (Crustacea) (Source: FishIDER, 2019)

animals, also preserved into jerky called *daiŋ* or *deŋ*, both fresh and salted (Nastiti 2003: 70).

Until now, women managed fish processing that comes from the catch of fishers. As seen in the several ports and coastal areas in East Java, many types of fish were sorted by women. Some of the fish are sold fresh, and the rest is preserved by making salted fish. The women are doing the sorting process by making salted fish. In the life of fisher communities, the role of women is quite essential in managing marine products.

CONCLUSION

Based on textual data in ancient inscriptions and Foreign record texts, various information containing maritime traditions is relatively incomplete, instead fragmentary. Meanwhile, ancient literary texts contain a complete narrative and tend to likely be more alive and comfortable to imagine. Although the narrative about sea and maritime is more of a parable, there is knowledge about various things not contained in ancient inscriptions or Foreign record texts from this parable. Maritime themes written in ancient literary texts from the Kadiri and Majapahit period include the types of boats that existed at that time, more than the types of boats mentioned in the ancient inscriptions. Each type of boat has a different designation. There are roping boats that serve passengers to cross the river, and fishers use boats to catch fish and other marine resources. There are large ships that were used for inter-island and inter-continental trading activities. There were also ships belonging to kings or royal officials, which usually had different trends for each period and sometimes functioned as warships. Besides the types of boats and ships, ancient literary texts also describe shipwrecks caused by natural and human factors. Not only that, in ancient literary texts, the activities of fishermen's life are also mentioned. Some fish are selected, some were cooked, and some were dried into fish jerky, plain flavor, and salty.

Although considered secondary data, ancient literary texts are still necessary to fill in things that are not written in ancient inscriptions or Foreign record texts. Ancient literary texts are not only based on imagination but also very possibly based on the fact that the author may witness it firsthand or hear from other people. Many facts of events such as various forms of boats, from small to large ones, as well as shipwrecks due to bad weather or being hijacked to inspire writing their works. Also, related to fishers' daily activities living on the coast, it is not considered an essay without facts. The writing follows the existing facts, such as Punjulharjo boats and shipwrecks from the past were often found in Indonesian marine waters. Some are even found still ongoing today, such as activities of coastal women. Thus, although Old Javanese literary works are categorized as secondary

sources, it is much more informative than ancient inscriptions and Foreign record texts in writing about maritime themes.

ACKNOWLEDGEMENT

The authors would like to express gratitude to all parties who supported the writing of this article. I would like to thank Kapata Arkeologi for publishing this article. I hope this article can provide a scientific impact on science.

REFERENCES

- Abbas, N. (2009). Perahu Kuno di Situs Punjulharjo, Rembang. In Berita Penelitian Arkeologi No. 23. Yogyakarta: Departemen Kebudayaan dan Pariwisata, Badan Pengembangan Sumberdaya Kebudayaan dan Pariwisata, Pusat Penelitian dan Pengembangan Arkeologi Nasional, Balai Arkeologi Yogyakarta.
- Admin KKP. (2018). FAQ Barang Muatan Kapal Tenggelam (BMKT). Retrieved June 10, 2019, from Kementerian Kelautan dan Perikanan Republik Indonesia website: https://kkp.go.id/artikel/2639-faq-barang-muatankapal-tenggelam-bmkt
- ArcGIS Database. (2019). GEBCO 2019 Basemap (NOAA NCEI Visualization). Retrieved April 2, 2020, from ArcGIS Hub website: http://hub.arcgis.com/datasets/
- Bellwood, P. (2006). Äustronesian Prehistory in Southeast Asia: Homeland, Expansion and Transformation. In P. Bellwood, J. J. Fox, & T. Darrell (Eds.), *The Austronesian: Historical and Comparative Perspective* (pp. 103–114). Canberra: ANU E Press.
- Berg, C. C. (1931). Een Nieuwe Redactie van den Roman van Raden Wijaya. Bijdragen Tot de Taal-, Land- En Volkenkunde van Nederlandsch-Indië, 88, 1–48.
- Brandes, J. L. A. (1904). Beschrijving van de ruine by desa Toempang genaam Tjandi Djagom in de residentie Pasoeroean. 's-Gravenhage: Mart. Nijhoff, Batavia: Albrecht & Co.
- Brandes, J. L. A. (1913). Oud-Javaansche Oorkonde, nagelaten transcripties van wijlen Dr. J.L.A. Brandes, uitgegeven door N.J. Krom. VBG, Batavia and's-Gravenhage, 60.
- FishIDER. (2019). Species List. Retrieved April 10, 2020, from Kementerian Kelautan dan Perikanan Republik Indonesia website: https://fishider.org/en/species
- Hirth, F., & Rockhill, W. W. (1966). Chau Ju-kua: on the Chinese and Arab Trade in the Twelfth and Thirteenth Centuries, Entitled Chu-fan-chi. Translated from the Chinese and Annotated. Amsterdam: Oriental Press.

- Indradjaja, A. (2017). Situs Bale Kambang, Batang, di dalam Jaringan Perdagangan Maritim pada Masa Hindu-Buddha. In B. B. Utomo (Ed.), *Kemaritiman Nusantara* (pp. 98–110). Jakarta: Yayasan Pustaka Obor Indonesia dan Kementerian Pendidikan dan Kebudayaan Badan Penelitian dan Pengembangan Pusat Penelitian Arkeologi Nasional.
- Kempers, B. (1980). The Pendopo Terrace of Panataran. In S. Suleiman (Ed.), *The Pendopo Terrace of Panataran*. Jakarta: Proyek Penelitian Purbakala.
- Mastuti, D. W. R., & Bramantyo, H. (2019). *Kakawin Sutasoma by Mpu Tantular* (2nd ed.; D. W. R. Mastuti & H. Bramantyo, Eds.). Depok: Komunitas Bambu.
- Mundarjito. (2007). Paradigma dalam Arkeologi Maritim. Wacana, 1–20(9), 1.
- Nastiti, T. S. (2003). *Pasar di Jawa Masa Matarām Kuna Abad VIII-XI Masehi*. Jakarta: Pustaka Jaya.
- Nastiti, T. S. (2016). Perempuan Jawa, Kedudukan dan Perananya pada Abad VIII-XVI Masehi. Bandung: Pustaka Jaya.
- Nugroho, I. D. (2011). Majapahit. Peradaban Maritim Ketika Nusantara menjadi Pengendali Pelabuhan Dunia. Jakarta: Yayasan Suluh Nuswantara Bakti.
- Pigeaud, T. G. T. (1963). Java in the Fourteenth Century: A Study in Cultural History. The Nagara-Kertagama by Rakawi Prapañca of Majapahit, 1365 A.D. The Hague: Martinus Nijhoff.
- Purwanti, R. (2018). Damar dalam Jaringan Perdagangan Masa Kerajaan Sriwijaya. In S. Raharjo, W. D. Ramelan, N. Anggraeni, & T. S. Nastiti (Eds.), Warisan Budaya Maritim Nusantara (pp. 60–68). Jakarta: Direktorat Pelestarian Cagar Budaya dan Permuseuman Direktorat Jenderal Kebudayaan Kementerian Pendidikan dan Kebudayaan bekerjasama dengan Perkumpulan Ahli Arkeologi Indonesia (IAAI).
- Rachmad, Y. (2019). Budaya Bahari Masyarakat Sriwijaya pada Masa Pra-Modern. Journal of Education and Historical Studies, 1(2), 23–30.
- Rahmawati, M., Riyadi, M. I., & Rizaldy, R. J. (2019). Sungai Bengawan Solo: Tinjauan Sejarah Maritim dan Perdagangan di Laut Jawa. Jurnal Candrasangkala, 5(2), 24–39.
- Sadzali, A. M. (2018). Evaluasi Konservasi Perahu Kuno Punjulharjo dan Pengembangan Objek di Masa Depan dalam Penguatan Identitas. *Titian: Jurnal Ilmu Humaniora*, 2(1), 51–66.
- Sadzali, A. M. (2019). Hulu ke Hilir: Jaringan dan Sistem Perniagaan Sungai Kerajaan Srivijaya. Paradigma Jurnal Kajian Budaya, 9(1), 61–82.
- Sedyawati, E. (1986). Keadaan Masyarakat Jawa Kuno, Masa Kadiri dan Masalah Penafsirannya. In S. Sulaeman (Ed.), *Pertemuan Ilmiah Arkeologi ke-III*. Jakarta: Proyek Penelitian Purbakala Jakarta Departemen Pendidikan dan Kebudayaan.
- Sedyawati, E. (1994). Pengarcaan Ganesa Masa Kadiri dan Sighasāri, Sebuah Tinjuan Sejarah Kesenian. Jakarta: LIPI-RUL.
- Simanjuntak, T. (2015). Progres Penelitian Austronesia di Nusantara. Amerta, 33(1), 25–44.
- Siregar, S. M. (2018). Jejak-Jejak Perdagangan di DAS Musi pada Masa Sriwijaya. In S. Raharjo, W. D. Ramelan, N. Anggraeni, & T. S. Nastiti (Eds.), Warisan Budaya Maritim Nusantara (pp. 123–136). Jakarta: Direktorat Pelestarian Cagar Budaya dan Permuseuman Direktorat Jenderal Kebudayaan Kementerian Pendidikan dan Kebudayaan bekerjasama dengan Perkumpulan Ahli Arkeologi Indonesia (IAAI).
- Suhartono, Y. (2018). Rekonstruksi Kehidupan Maritim pada Masa Mataram Kuno berdasarkan Relief Candi Borobudur. In S. Raharjo, W. D. Ramelan, N. Anggraeni,

& T. S. Nastiti (Eds.), *Warisan Budaya Maritim Nusantara* (pp. 156–165). Jakarta: Direktorat Pelestarian Cagar Budaya dan Permuseuman Direktorat Jenderal Kebudayaan Kementerian Pendidikan dan Kebudayaan bekerjasama dengan Perkumpulan Ahli Arkeologi Indonesia (IAAI).

- Thufail, F. I. (2018). Pendekatan Teori Jaringan-Aktor (Actor-Network Theory) dan Konsep Assemblage dalam Kajian Arkeologi Maritim. In S. Raharjo, W. D. Ramelan, N. Anggraeni, & T. S. Nastiti (Eds.), Warisan Budaya Maritim Nusantara (pp. 236–245). Jakarta: Direktorat Pelestarian Cagar Budaya dan Permuseuman Direktorat Jenderal Kebudayaan Kementerian Pendidikan dan Kebudayaan bekerjasama dengan Perkumpulan Ahli Arkeologi Indonesia (IAAI).
- Tim Humas DJKN. (2019). Menguak Sejarah dari Dasar Laut Melalui BMKT. Retrieved June 10, 2019, from Berita DJKN, Kementerian Keuangan Republik Indonesia website: https://www.djkn.kemenkeu.go.id/berita/baca/17537/M

https://www.djkn.kemenkeu.go.id/berita/baca/1/53//M enguak-Sejarah-dari-Dasar-Laut-Melalui-BMKT

- Tim Redaksi KBBI. (2018). *Kamus Besar Bahasa Indonesia* (5th ed.). Jakarta: Badan Pengembangan dan Pembinaan Bahasa Kementerian Pendidikan dan Kebudayaan.
- Tjahjono, B. D. (2017). Matarām Kuno: Agraris atau Maritim. In B. B. Utomo (Ed.), *Kemaritiman Nusantara* (pp. 81– 98). Jakarta: Yayasan Pustaka Obor Indonesia bekerjasama dengan Kementerian Pendidikan dan Kebudayaan Badan Penelitian dan Pengembangan Pusat Penelitian Arkeologi Nasional.
- Utomo, B. B. (2018). Pelabuhan Sungai Kota Kapur di Masa Lampau. In S. Raharjo, W. D. Ramelan, N. Anggraeni, & T. S. Nastiti (Eds.), Warisan Budaya Maritim Nusantara (pp. 98–115). Jakarta: Yayasan Pustaka Obor Indonesia bekerjasama dengan Kementerian Pendidikan dan Kebudayaan Badan Penelitian dan Pengembangan Pusat Penelitian Arkeologi Nasional.
- van Erp, T. (1923). Voorstellingen van vaartuigen op de reliefs van den Boroboedoer. In T. van Erp (Ed.), Nederlandsch Indië Oud en Nieuw 8ste jg (pp. 227–255). s'-Gravenhage: Monographieen over Kunst en Cultuur.
- Wahjudi, W. R. (2014). Alat-alat Transportasi Masa Majapahit. In Inspirasi Majapahit (pp. 83–95). Yogyakarta: Yayasan Arsari Djojohadikusumo bekerja sama dengan Universitas Indonesia, Universita Gadjah Mada, Universitas Udayana, Universitas Hasanuddin.
- Wheatley, P. (1959). Geographical Notes on Some Commodities involved in Sung Maritime Trade. *Journal* of the Malayan Branch of the Royal Asiatic Society, 32(2 (186)), 3–139.
- Winaya, A. (2018). Cakrawala Mandala Dwipāntara: Wawasan Kemaritiman Kerajaan Singhasari. In S. Raharjo, W. D. Ramelan, N. Anggraeni, & T. S. Nastiti (Eds.), Warisan Budaya Maritim Nusantara (pp. 137–147). Jakarta: Direktorat Pelestarian Cagar Budaya dan Permuseuman Direktorat Jenderal Kebudayaan Kementerian Pendidikan dan Kebudayaan bekerjasama dengan Perkumpulan Ahli Arkeologi Indonesia (IAAI).
- Wirjosuparto, R. M. S. (1960). Kakawin Ghatotkacaśraya, Tjerita Lakon dalam Bahasa Kawi. Dissertation Universitas Indonesia.
- Wolters, O. W. (1967). *Early Indonesian Commerce: A Study* of the Origins of Çrīvijaya. Ithaca: Cornell University Press.
- Worsley, P., Supomo, S., & Fletchert, M. (2014). Kakawin Sumanasantaka: Mati karena Bunga Sumanasa karya Mpu Monaguna Kajian sebuah Puisi Epik Jawa Kuno. Jakarta: Yayasan Pustaka Obor Indonesia.
- Wurjantoro, E. (2018). Anugerah Sri Maharaja, Kumpulan Alihaksara dan Alihbahasa Prasasti-prasasti Jawa

Kuna dari Abad VIII-XI. Jakarta: Departemen Arkeologi Fakultas Ilmu Pengetahuan Budaya Universitas Indonesia.

Yulinnas, S. (2016). Pedagang Pilih Jual Ikan Asin. Retrieved June 10, 2019, from Nusantara, Media Indonesia website:

https://mediaindonesia.com/nusantara/68079/pedagangpilih-jual-ikan-asin

Zoetmulder, P. J. (2004). *Kamus Jawa Kuna* (4th ed.). Jakarta: Gramedia Pustaka Utama.