Shipwreck archaeology of the Lakshadweep Islands, west coast of India

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Archaeological investigations in the Lakshadweep Islands have brought to light the presence of a large number of shipwrecks and the archival records have the details of some of these wrecks. Northern islands and reefs of Minicoy were the locations of shipwrecks prior to 1865, but the trend changed with the opening of the Suez Canal. Various organisations including the National Institute of Oceanography, Goa, have focused on Minicoy, Byramgore, Suheli Par, and Bangaram Island for detailed exploration of shipwrecks, and the findings suggest that due to submerged coral reefs, atolls, and other shallow hazards a large number of ships were wrecked in Lakshadweep waters.

Key words: shipwreck, exploration, archaeology, Lakshadweep, Minicoy, Suheli Par, Byramgore, Bangaram.

Introduction

As long as canoes and boats have been in use, the sea has been the stuff of epic and legend. It is a reminder of its constant challenge to human courage and ingenuity, and has yet to be fully explored scientifically. There are about half a million islands in the world, each one providing a unique and distinct meeting place between land and sea. It is still difficult to state when man crossed the sea and settled on the islands, but later period evidence shows that modern man built rafts and boats for crossing seas in search of food and shelter. Ancient Indian sailors passed through the islands both on the east and west coast for maritime trade. Explorations have been carried out with the objective of locating archaeological sites on land and collecting data for reconstructing the cultural contact and to trace the trade links of Lakshadweep with the mainland. Offshore explorations of shipwrecks have been carried out to ascertain the type of ships involved in trade and the country of origin and the type of cargo carried by them.

Geology and historical background

The Lakshadweep islands are located on the sea route between South Asia and Sri Lanka on one side, and west Asia and North Africa on the other. They have been known to navigators and merchants of a number countries since the Early Historical Period and have played an important role in ancient maritime trade and commerce. Generally, the islands serve as good landmarks for navigators. Therefore, ancient seafarers from India as well as other countries took shelter on the Lakshadweep islands in cases of emergency. Seafarers of south-east Asian and Arabian countries must have passed the Lakshadweep, Maldives, Andaman and Nicobar groups of islands on their passage to overseas countries.

The group of 36 islands lying off the south-west coast of India between latitude 8° and 12°37'N and longitude 71° and 74°E (Fig. 1) have been selected for study. All these islands are roughly oriented in a N-S direction except for Androth, which trends E–W. Most of the islands are enclosed by lagoons with coral reefs on their western sides. The lagoons are shallow, with a maximum depth of 16 m, the shallowest being 2 m. Coral sands and gravel constitute the seabed of the islands. These islands do not show any major topographical features since they are largely low-levelled and flat-topped with a height of less than 6 m above sea level. Most of the islands are elongated and irregular in shape. Natural resources are very limited because of ecological constraints. There is no aboriginal group, but it is believed that inhabitants came
from nearby islands or the mainland of India. Very little is known about their history and human settlement.

There is evidence that the islands were known to the sailors of various countries since the Early Historical Period. The author of the *Periplus of the Erythraean Sea* and Ptolemy refer to them. Discovery of Roman coins of the 1st century AD at Kadmat shows that the islands had direct or indirect trade contacts with Roman sailors and that they were aware of their existence. More recently three gold ducats (Zecchini) of the Doge Alviso Mocenigo, were found on Kadmat Island. They were minted in AD 1570 (Fig. 2a, b). These Venetian ducats were imported into India in exchange for goods like spices and silk. As the metal of these coins was pure and they maintained a standard of purity and weight, they became very desirable in India. Consequently, possession of such ducats became a symbol of pride (Dilip Rajgor: pers. comm).

The archaeological explorations conducted by the Archaeological Survey of India, New Delhi, and the National Institute of Oceanography, Goa, have revealed evidence for settlement and various types of pottery at Androth, Kavaratti, Amini, and Agatti (IAR 1983–84; Vora, 1994). Red ware, dull red ware, and a few sherds of black ware were collected from the mounds on Androth (Fig. 3). These potsherds comprise jars and bowls. The site where the pottery was found is known as Kalikatta. Similarly, red ware, dull red ware and black ware sherds were found near the mound on Kavaratti (Fig. 4). The potsherds collected from the islands of Lakshadweep are small, and appear to be parts of small jars, bowls, and vessels. No paintings or incised designs were found on them. All potsherds are ill fired, and are of medium fabric. The exploration did not yield any bases or other parts of pottery. The explorations at Agatti and Amini yielded medieval-period pottery and habitational remains (Sila, 1999). Evidence of the prevalence of Buddhism has come to light at Androth (Figs 5 & 6), Kavaratti and Minicoy (Sharma & Khan, 1994). It appears that local people of Androth Island might have damaged
and defaced the images of Buddhism. Fragments of sculpture of a Hindu goddess have also been found on the island of Kalpeni. The direct reference to the Lakshadweep Islands is found in the Vayalur inscription of the 7th–8th century AD (Sastri, 1925–26). The Rajarajeswar temple inscription of the 11th century has also provided information on the islands (Mannadiar, 1977). In addition, the Sanskrit work the Mooshakavamsa of the 11th century AD refers to their annexation by the king of Vallabha (Rao, 1916).

The islands were known for boatbuilding activity during the 11th and 12th centuries AD. The entire boat was built from the coconut palm, and the method of construction was stitching. These boats were used for ferrying coconuts and fruit to Oman and other Gulf countries (Hourani, 1975). Further, an Arab–Indian type of stone anchor shank found in the Jama Mosque at Funhilol of Minicoy Island is tangible evidence that Arab merchants had close trade contacts with the people of Lakshadweep (Fig. 7) (Kapitan, 1994).

Figure 2. Gold ducats. The obverses show a figure of a saint (Christ?) whereas the reverses display the Doge of Venice kneeling to receive a banner from St Mark. (Photograph: Archaeological Survey of India)

Figure 3. Red ware and other associated pottery collected from Androth Island. (Drawing: S. B. Chitari)
19th- and early 20th-century reports of shipwrecks

During the last 5000 years, a large number of ships of various nationalities have been lost in Indian waters due to natural calamities such as cyclones, and human error and warfare. Proper documentation or records of ships and cargo lost prior to the 16th century is not available. However, a few references are made in Buddhist Jataka stories and inscriptions. Large numbers of boats and ships appear to have sunk after hitting the coral reefs, lagoons, and shoals due to inadequate navigational information. In earlier periods shipwrecks in the Lakshadweep islands may have been due to furious storms and cyclones during the south-west monsoon which prevails every year.

Since Lakshadweep is situated on the navigation routes from the Cape to Bombay and from Colombo to Bombay and Aden, shipwrecks must have been frequent on such low-lying islands and submerged reefs. A brief account of known wrecks in Lakshadweep waters is given below and shown in Table 1.

The Honourable East India Company (HEIC) vessel Byramgore bound to Bombay from China, with a cargo including silver, and silk, was lost on Cheriyapani Reef on 7 August 1827 at 3 a.m. The captain of the Byramgore ship Crocket reported to the Collector of Mangalore and sought his help to salvage the ship. Collector sent Master Attendant McDonald along with the captain to salvage the Byramgore ship. Due to rough weather they could not salvage the ship in spite of their two attempts. The East India Company sent a group of surveyors in 1828 to survey the ship and the surveyors prepared a map showing the location of the wreck[1] (Fig. 8). In fact, the ship Byramgore was wrecked on the Cheriyapani Reef.

With the passage of time the Cheriyapani Reef was renamed as Byramgore Reef. On Cheriyapani Reef, the Ceylon belonging to the English East India Company, sailed from England for
Bombay, and was wrecked in 1844. There was no record of survivors from that incident, so it was presumed that all the crew died. Sir W. Robinson, the Chief Assistant, was sent to recover the cargo and succeeded in salvaging a large part of it\textsuperscript{[2]}.

The *Falcon*, belonging to the HEIC, sailed from Bombay for Madras and was wrecked near Byramgore Reef in 1844. Dan Ross, the master of the ship, reported that the caution made in the Naval charts was too easterly and likely to be fatal to ships (Rao, 1987). The HEIC ship *Futti Rusool* was wrecked on (Akkatti) Agatti Island shoals on 14 April 1848 carrying pilgrims from Malaysia to (Judda) Mecca. All the pilgrims escaped from the wreck (Rao & Gudigar, 1988). The *Vizier* (Wazeer) belonging to the Ms Smith and Co. bound for Bombay from Liverpool was wrecked on 27 March 1853 in Cheriyapani. The cargo, comprising cotton material and cutlery, was lost (Mannadiar, 1977). The crew succeeded in reaching Chetlat and lived there for a few months before being taken off. An Arab ship, the *Homidy*, bound from Bombay for Mauritius, was lost on Byramgore in 1854, but the crew and a part of the cargo were saved. The ship *Alchemist*, bound for Bombay from England and another, the *Sultan*, from Mauritius for Bombay, were also lost near Byramgore in 1858. The HEIC vessel *Hopewell* was wrecked on Kalpeni shoals in 1860. The *Abel Tasman*, a Dutch ship bound from Bombay to London was also wrecked near Byramgore in 1865. The *General Simpson* bound for England from Bombay and carrying cotton bales was lost in 1863 on Chetlat Island. The *Lord Brougham* was lost on Cheriyapani in 1865.\textsuperscript{[3]}

The Byramgore and Cheriyapani reefs in Lakshadweep waters have been the site of numerous other shipwrecks. The *Amelia* carrying coal was lost on Kalpeni in 1880, but the cargo of coal was recovered by using smaller inspection steamers. The boilers were washed on to the reef by a cyclone in 1922. During the monsoon of 1881, the *Mahableshwar* was lost off the Bangaram Reef. She was carrying government...
Off the north-eastern end of Minicoy Island, the *Thrunscoe* was lost in 1899. The *Duffryn Manor* bound to London from Colombo was lost at almost the same position in 1909. The Swedish steamer, the *Delagoa* bound for Europe from Colombo, became stranded on the north-eastern end of Minicoy Island and was totally wrecked. Prior to 1865 most of the wrecks occurred on the northern islands and reefs of Minicoy. Subsequently wrecks have occurred on the southern islands, which lie directly on the present trade route from Colombo to Aden or Bombay. The ships that were wrecked in Minicoy waters were *Thrunscoe* in 1899, the *Duffryn Manor* in 1909, the *Delagoa* in 1910 and the *Beacry* in 1911. The *S.S. Hochst* carrying a cargo of non-ferrous metals was wrecked probably in 1929 in Minicoy waters and is lying at a depth of between 10 and 15 m about 60 m SE of the shore, near Minicoy lighthouse.

**Shipwreck explorations in Lakshadweep waters**

**Byramgore**

In 1990, the Indian Navy and the Marine Archaeology Centre of the National Institute of Oceanography, Goa, undertook the exploration of shipwrecks on the Byramgore Reefs. The survey Vessel INS *Sandhayak*, well equipped with modern instruments was deployed for the exploration and to locate the *Byramgore* wreck. During low tides the reef is visible. At high water it is submerged and wave breakers are high. The

<table>
<thead>
<tr>
<th>No.</th>
<th>Name of the ship</th>
<th>Year of wreck</th>
<th>Destination</th>
<th>Place where sank</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Byramgore</em></td>
<td>1828</td>
<td>Bombay</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>2</td>
<td><em>Ceylon</em></td>
<td>1844</td>
<td>Bombay</td>
<td>Ceriyapani Reef</td>
</tr>
<tr>
<td>3</td>
<td><em>Falcon</em></td>
<td>1844</td>
<td>Not known</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>4</td>
<td><em>Futti Rusool</em></td>
<td>1848</td>
<td>Not known</td>
<td>Agatti Island</td>
</tr>
<tr>
<td>5</td>
<td><em>Vizier</em></td>
<td>1853</td>
<td>Bombay</td>
<td>Ceriyapani Reef</td>
</tr>
<tr>
<td>6</td>
<td><em>Homidy</em></td>
<td>1854</td>
<td>Mauritius</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>7</td>
<td><em>Alchemist</em></td>
<td>1858</td>
<td>Bombay</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>8</td>
<td><em>Sultan</em></td>
<td>1858</td>
<td>Bombay</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>9</td>
<td><em>Hopewell</em></td>
<td>1860</td>
<td>Not known</td>
<td>Kalpeni Island</td>
</tr>
<tr>
<td>10</td>
<td><em>Abel Tasman</em></td>
<td>1865</td>
<td>London</td>
<td>Byramgore Reef</td>
</tr>
<tr>
<td>11</td>
<td><em>General Simpson</em></td>
<td>1863</td>
<td>England</td>
<td>Chetlat Island</td>
</tr>
<tr>
<td>12</td>
<td><em>Lord Brougham</em></td>
<td>1865</td>
<td>Not known</td>
<td>Ceriyapani Reef</td>
</tr>
<tr>
<td>13</td>
<td><em>Amelia</em></td>
<td>1880</td>
<td>Not known</td>
<td>Kalpeni Island</td>
</tr>
<tr>
<td>14</td>
<td><em>Mahableshwar</em></td>
<td>1881</td>
<td>Not known</td>
<td>Bangaram Island</td>
</tr>
</tbody>
</table>
diving exercise over the reef area led to the recovery of pottery and metal fragments from the wreck (Rao, 1994).

Bangaram

The Archaeological Survey of India undertook exploration of shipwrecks in Bangaram waters with the help of local divers in response to clues and information from the local administration. Bangaram (10°56'N and 72°17'E) is an uninhabited island lying 8 km north of Agatti Island. This island was under the control of the Agatti people but in 1764 the Bibi of Cannanore confiscated it. Today it is one of the finest tourist spots in India. The wreck lies on a sloping terrace and the wreckage is spread over a water depth ranging from 9 to 36 m. The major part of the ship lies at a depth of 24–36 m. Exploration revealed remains of the wreck which include a 5 m-long iron anchor, 4 cannon each 2 m long, a copper vessel (Fig. 9), nails and copper sheet from the hull, jars, bowls, and dishes of Khemer ware, and a Chinese sherd of the Ming Dynasty. A number of jars and timbers of the ship are well preserved (Tripathi, 1994). The name, nationality, and destination of this ship is unknown. The antiquities retrieved show that it could be of the 18th century.

In 1992, the Indian Navy, the Pondicherry University, and the Research Institute of Germany undertook an expedition on the Mercator to locate the shipwrecks and trading posts of Germany along the Indian coast including the Lakshadweep Islands. The Mercator
called at all the relevant sites, namely Daman, Goa, Anjadeep, Cannanore, Cochin, Quilon, Kavaratti, Kadmat, Amini, and Bangaram. The records submitted by the team mention that there was 16th-century shipwreck on Bangaram Island. In April 1992 the marine archaeology club of the Indian Navy carried out underwater exploration of Bangaram to locate the wreck. In the course of survey a shipwreck was found on the northern reef off Bangaram Island. The wreck is scattered over an area of 5000 m² and some pieces of the wreck are lying at a depth of 60 m. Preliminary exploration noted pottery (Fig. 10), and a two-fluked iron anchor (Fig. 11) from the German wreck (Gupchup, 1997).

**Suheli Par and Minicoy**

The Marine Archaeology Centre of the National Institute of Oceanography, Goa, has undertaken exploration work to locate archaeological sites on land and collect data for reconstructing the cultural contact and to trace the trade links of Lakshadweep with the mainland. Onshore explorations were carried out on these islands of potential archaeological and historical importance.

Offshore explorations of shipwrecks have been carried out to ascertain the type of ships involved in trade and the country of origin of the cargo carried by them. In 1994 a cruise was conducted onboard RV Gaveshani (Gaur et al., 1998: Fig. 1). Based on information collected from the local traditions, and archival data, two sites were selected at Minicoy and one at Suheli Par for the purpose of shipwreck exploration. All the wrecks were located in depths of 4 to 15 m. Diving took place from local boats. An Osprey model OE 1211 underwater TV camera connected to an onboard monitor with an umbilical cable was deployed for recording the underwater finds and environment. Underwater still photography was carried out using a Nikon V camera with a 15 mm wide-angle lens.

**Suheli Par**

Suheli Par (10°08′N and 72°18′E) is an uninhabited coral atoll with two islands located 47 km SW of Kavaratti (Fig. 12). Suheli Par does not have a hard coral substratum. Sandbanks have formed in the middle of the lagoon, which is shallow. The people of Kavaratti visit this island frequently to fish in the lagoon. It was formerly under the control of the islanders of Kavaratti but at a later period was confiscated by the Rajas of Cannanore. Today the island is just 1 m above sea-level and lies on the international sea-route. Offshore exploration in the Suheli Par Reef revealed a wreck which contains the remains of a number of armoured vehicles, and tyres of various vehicles, trucks, cars and cannon. Explorations were carried out at a depth of 6–15 m, but since the sea was choppy, it was not possible to dive close to the reef for an examination of the wreck. The remains on the reef belong to a Greek ship which was carrying Second World War surplus stores from Burma and grounded at night during December 1955 (Saigal, 1990). In August 1959 the tanker National Peace grounded on the western side of the reef. The ship was carrying fuel for the American naval establishments in the Philippines. Subsequently, in 1962 the shipwreck was removed. These findings suggest that a
number of ships might have been wrecked close to the island during the two world wars, but local information is available only for three or four shipwrecks.

Minicoy

Minicoy (8°17'N and 73°04'E) is the southernmost island of Lakshadweep lying on the international sea-route. It is narrow, and crescent-shaped with a long strip extending northwards. To the north and south of Minicoy there are 2000 m deep channels which have served as hinterland shipping lanes ever since the discovery of the trade winds. Ships proceeding from Aden to Colombo pass close to Minicoy. The absence of a lighthouse earlier led to shipwrecks on the shallow reef. Three wrecks were noticed around this and two have been explored to date and reported in this journal (Gaur et al., 1998).

Discussion

Archival records show that Byramgore, Cheriapani reefs, and Minicoy are the major shipwreck zones of Lakshadweep. The records indicate the occurrence of three shipwrecks namely the Thrunscoe in 1899, the Duffryn Manor in 1909 and the Delagoa in 1910 on the north-eastern part of the Minicoy island. The wrecks which were found by the Marine Archaeology Centre of the National Institute of Oceanography may be of these vessels. Further survey of these wrecks is required to confirm this. The causes of wrecking are yet to be ascertained (Fig. 13). Explorations are yet to be carried out in the area where wreck III lies and this is being salvaged. Exploration and excavation of steam-engine wrecks are rare. Hence it is important to explore the steam-engine wrecks of Lakshadweep for marine archaeological research.

No records of shipwrecks in Indian waters are found prior to the 16th century AD. Stray references are found in the literature in which locations are not conspicuous. Similarly, references are available about shipwrecks in Lakshadweep but locations are not known. It is possible that ancient period wrecks might have been washed out in the cyclones and storms which prevail every year in Lakshadweep, or may have rolled over and migrated to deeper waters as the water depth is great around Lakshadweep. Further, as ancient craft were made of wood, they may have disintegrated or corals may have grown on them. In India, very few research organisations are involved in the exploration of shipwrecks, and as locations of shipwrecks are not recorded in Lakshadweep waters, it is difficult to locate wrecks of ancient periods.

The wrecks which were explored by the National Institute of Oceanography, belong to the 19th century. This period is the transition phase between wood and iron, and sail to steam. Earlier-period ships were small in size, and navigation was based on the experience of the sailor, whereas with the invention of steam engine the size of ships increased, as movement was fast, and developed techniques were adopted for navigation. Presently, in India shipwrecks are being salvaged for their metal value which is a
short-term gain. However, this also leads to the destruction of valuable evidence. Further, the shipwreck sites can be promoted for tourism after exploration and identification of the flag of the ship and cargo.

**Conclusion**

The tiny islands, shallow reefs, sunken banks and lagoons were dangerous for navigation during early times. Preliminary exploration of the Lakshadweep Islands has revealed the presence of several steam-engine wrecks in the waters of Minicoy, Bangaram, Byramgore and Suheli Par. These wrecks are well preserved and require more detailed exploration. Attempts should also be made to investigate Byramgore and other shipwrecks off Minicoy. These wrecks should also be protected. Exploration of these wrecks will be helpful in learning about the causes of wreck, the nationality of the ships and the history of shipbuilding technology.

In India, very few shipwrecks have been explored to date, but the rate of salvage is quite high. This needs to be curbed, and licences already issued for salvage should be halted. This will enable marine archaeologists to undertake detailed studies of these wrecks.

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**Notes**

References


