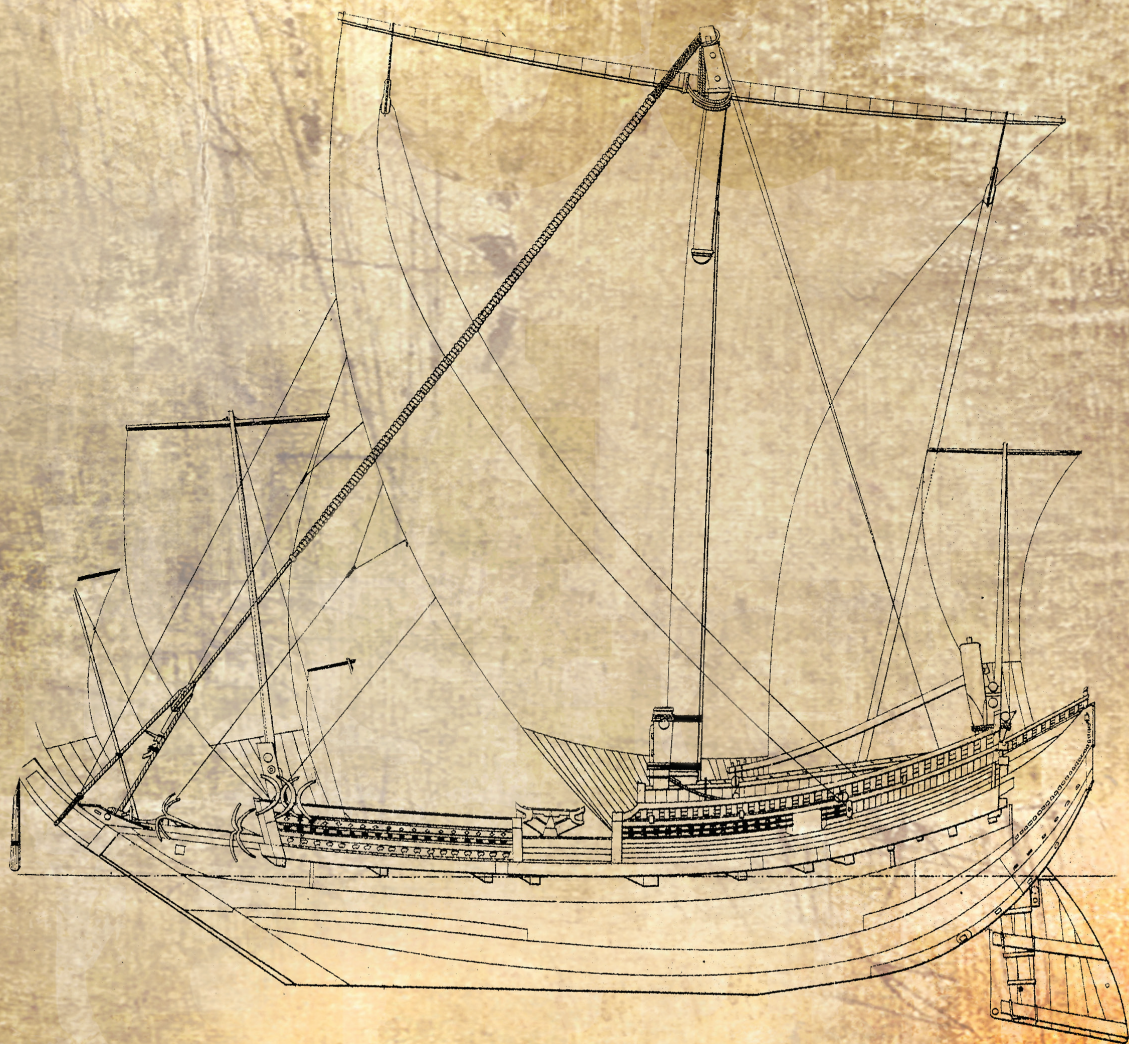


Shipwreck ASIA: Thematic Studies in East Asian Maritime Archaeology

Edited by Jun Kimura | 2010



SHIPWRECK  ASIA

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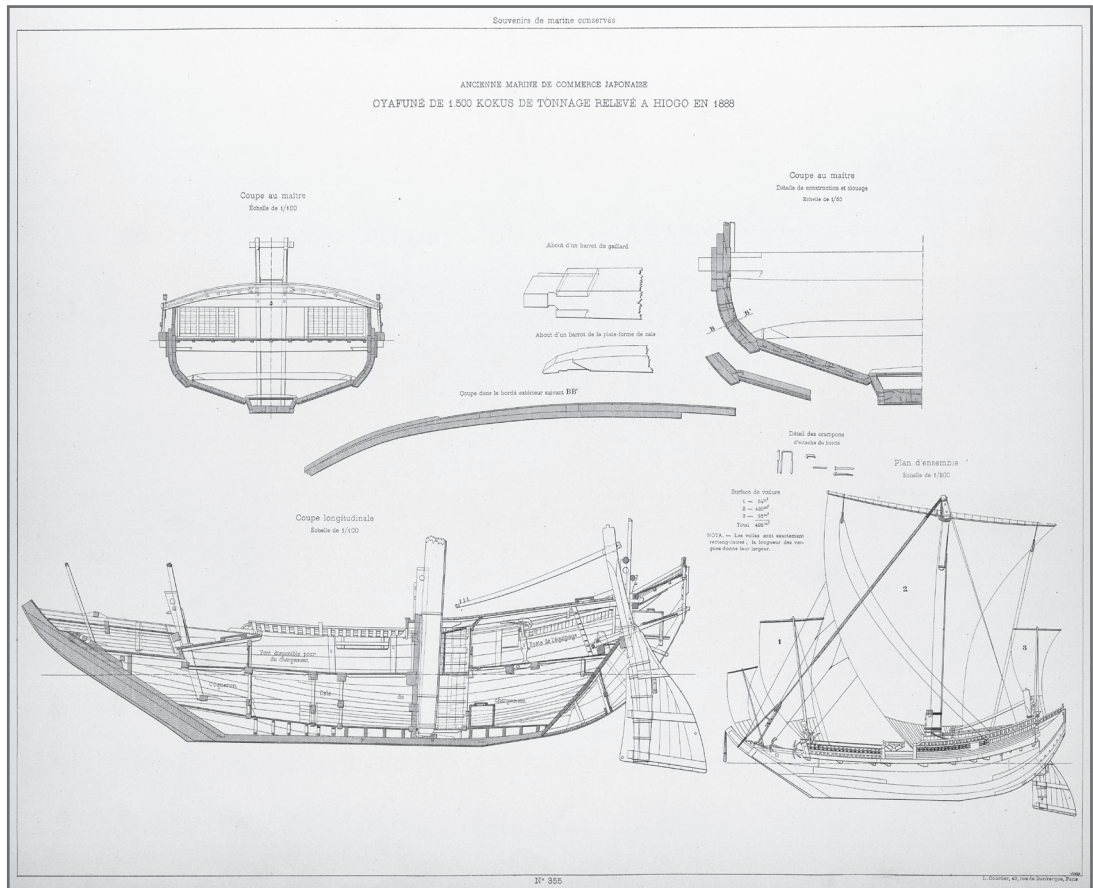
トヨタ財団

The Toyota Foundation

Dedicated to

Worrawit Hassapak

in memory of his achievements with
the Thai Underwater Archaeology Division



Cover image

François-Edmond Pâris, Souvenirs de Marine (Courtesy of Cushing Library, Texas A&M University)

Table of Contents

Foreword

Dr. Mark Staniforth (Maritime Archaeology Program, Flinders University)

Page ix

1. Historical development of shipbuilding technologies in East Asia

Jun Kimura (Maritime Archaeology Program, Flinders University)

Page 1

2. Watertight bulkheads and limber holes in Ancient Chinese Boats

Cai Wei, Li Cheng, Xi Longfei (Ship History Research Centre, Wuhan University of Technology)

Page 26

3. Two Ming Dynasty shipyards in Nanjing and their infrastructure

Sally K. Church (Faculty of Asian and Middle Eastern Studies, University of Cambridge)

Page 32

4. Iron nails recovered from the plank of the Shinan shipwreck

Lee Chul Han (National Research Institute of Marine Cultural Heritage), Masami Osawa (Kyusu Techno Research Inc), Jun Kimura (Maritime Archaeology Program, Flinders University)

Page 50

5. Goryeo Dynasty (918–1392), shipwrecks in Korea

Randall Sasaki (Institute of Nautical Archaeology), Lee Chul Han (National Research Institute of Marine Cultural Heritage)

Page 56

6. Identification of materials of the Quanzhou ship and Samed Nagam ship

Shuichi Noshiro & Hisashi Abe (Forestry and Forest Products Research Institute)

Page 74

7. A report on a keel excavated at Nishihama, Nagasaki, Japan

Kazuma Kashiwagi (Asia Research Institute of Underwater Archaeology)

Page 78

Project participants list

Page 90

Foreword

Shipwreck ASIA project

“Each State Party shall take all practicable measures to disseminate information, including where feasible through appropriate international databases, about underwater cultural heritage excavated or recovered contrary to this Convention or otherwise in violation of international law.”¹

The Shipwreck ASIA project is conducted through the Maritime Archaeology Program (MAP) at Flinders University in South Australia and working to establish a regional database of shipwrecks and ship remains in Asia. This project is supported by the Toyota Foundation as part of the Research Grant Program *Cultural Creation in Maritime East Asia*. According to its mission statement, Shipwreck ASIA (www.shipwreckasia.org) is a regional shipwreck and ship remains database designed to promote international study of maritime cultural heritage in Asia. The database collects archaeological data for ships originating from East Asia. Data have been submitted by regional authorities and researchers in maritime archaeology, nautical archaeology, naval history and associated disciplines. Shipwreck information and site data include numerical and textual data, images, video and supporting documents.

The database has been designed to include Southeast Asian as well as East Asian constructed vessels. This is because East Asian built ships have been located in Southeast Asia through archival or archaeological research. Project researchers contacted individuals from both regions for database data. Project participants and partner institutions in this project include leading regional and international organisations and universities in primary and associated academic fields.

Asian Research Institute of Underwater Archaeology
—*Japan*

Department of Naval Architecture & Ocean Engineering,
Seoul National University
—*Korea*

Department of Maritime Archaeology, Western Australian
Museum
—*Australia*

Institute of Nautical Archaeology, Texas A&M University
—*The United States*

Ministry of Marine Affairs and Fisheries
—*Indonesia*

National Museum of the Philippines
—*Philippines*

National Research Institute of Marine Cultural Heritage
—*Korea*

Quanzhou Maritime Museum
—*China*

Shipbuilding History Research Centre, Wuhan University
of Technology
—*China*

Underwater Archaeology Division, Fine Arts Department,
the Ministry of Culture
—*Thailand*

Underwater Archaeological Research Centre, National
Museum of China
—*China*

Thematic projects

Shipwreck ASIA supports thematic studies related to the central database: ‘specific ship structure’, ‘maritime infrastructure’, ‘traditional construction methods’ and ‘ship construction material’. Thematic studies include research and publication from China, the UK, Japan, the USA, Korea and Australia. Results of this research as presented in this publication are briefly outlined below:

1) Historical development of shipbuilding technologies in East Asia

Part of the collective data through the Shipwreck ASIA project highlighting mainly excavated ships in China is presented. This study aims at adding basic information to archaeologically identified ships in East Asia. List of the identified ship remains in China is provided in chronological order from the Tang Dynasty to the Qing Dynasty with a focus on structural characteristics. The data is meant to be used for future research. Here, some inquiries may arise for future discussion, for example, when the bulkhead structure was recognized as a representative aspect of Chinese shipbuilding tradition, and when and how it started to be used in Southeast Asian regions.

Jun Kimura
(Maritime Archaeology Program, Flinders University)

2) Watertight bulkheads and limber holes in ancient Chinese boats

Chinese shipbuilding technology has developed distinctive and representative characteristics. Excavated shipwrecks from the Jin, Tang and Song Dynasties in China exhibit bulkheads for their transverse structures. In Chinese shipbuilding tradition, bulkheads produced watertight compartments. Bulkheads presenting excavated ships have limber holes that allow bilge water to flow within the bottom of ship. The limber holes are important feature, yet their details have not been clarified. Chinese researchers will discuss this as it relates to history, ethnography and naval architecture.

Dr. Cai Wei, Dr. Li Cheng, Professor Xi Longfei
(Ship History Research Centre, Wuhan University of Technology)

3) Two Ming Dynasty shipyards in Nanjing and their infrastructure

Historical landscapes of maritime culture can be documented by archaeological remains not only of ships but also of maritime infrastructure, which consists of ports, anchorages, shipyards, warehouses, ferry crossings, coastal forts, and derelict places. These sites tend to be associated with maritime trade, diplomacy, and the shipbuilding industry. Little attention has been paid in the past to maritime infrastructure in the Asian region, especially in relation to shipwreck or shipbuilding sites. Here, two shipyards that flourished in Ming dynasty Nanjing are compared, one documented by archaeological evidence and the other by textual evidence. They were in slightly different locations, had different purposes, and different historical trajectories, yet they shed light on each other, and together help to form a picture of Ming maritime infrastructure.

Dr. Sally K. Church
(Faculty of Asian and Middle Eastern Studies, University of Cambridge)

4) Study on the iron nails recovered from the plank of the Shinan shipwreck

An agreement with the National Research Institute of Marine Cultural Heritage allowed for a section of an iron nail to be sampled from a Shinan shipwreck’s hull plank. The sample was sent to the Division for Archaeological Consultant at Kyusu Techno Research Inc for metallurgical analysis. Results of this analysis and a perspective on manufacturing processes of iron nails for ship construction in the medieval periods will be presented.

Lee Chul Han
(National Research Institute of Marine Cultural Heritage)

Masami Osawa
(Kyusu Techno Research Inc)

Jun Kimura
(Maritime Archaeology Program, Flinders University)

5) Goryeo Dynasty shipwrecks in Korea

The National Research Institute of Marine Cultural Heritage (National Maritime Museum) in Korea is one of the largest Institutes in East Asia specialising in shipwreck survey and research. This will be a summary report of archaeologically identified Korean ships in the country. Also, endemic features of Korean shipbuilding construction methods are clarified by looking at the structure of the excavated ships. The purpose of this study is to provide intensive information about Goryeo Dynasty's ship as an example of Korean maritime archaeological researches.

Randall Sasaki

(Institute of Nautical Archaeology)

Lee Chul Han

(National Research Institute of Marine Cultural Heritage)

6) Identification of wood samples from Quanzhou ship and Samed Nagam ship

Wood species identifications on shipwreck timber provide insights into vessel origin and shipbuilding industries. Previous studies of the Quanzhou ship have identified wood species used in hull construction. However, microphotographs to identify wood anatomical features from this research are not available. By cooperating with the Quanzhou Maritime Museum (Museum of Overseas Communication History), wood species identifications for the hull of the Quanzhou ship have been re-examined by the Forestry and Forest Products Research Institute. The Institute also conducted wood species identifications on the timber specimens from the Samed Nagam ship from Thailand.

Shuichi Noshiro and Hisashi Abe

(Forestry and Forest Products Research Institute)

7) A Report on a keel excavated at Nishihama, Nagasaki, Japan

Nagasaki was the only port opened to overseas merchants (Dutch and Chinese) during the national isolation period in the seventeenth and nineteenth centuries in Japan. In 1966, a large timber was found in Nagasaki city and was considered to be a part of keel from an overseas trader. However, the timber has not been examined in detail. An initial analysis of this timber is provided by a member of the Asia Research Institute of Underwater Archaeology.

Kazuma Kashiwagi

(Asia Research Institute of Underwater Archaeology)

Notes

- ¹ (UNESCO Convention on the Protection of Underwater Cultural Heritage, Article 19 — Cooperation and information-sharing, Paragraph 4)

Dr. Mark Staniforth

Maritime Archaeology Program, Flinders University