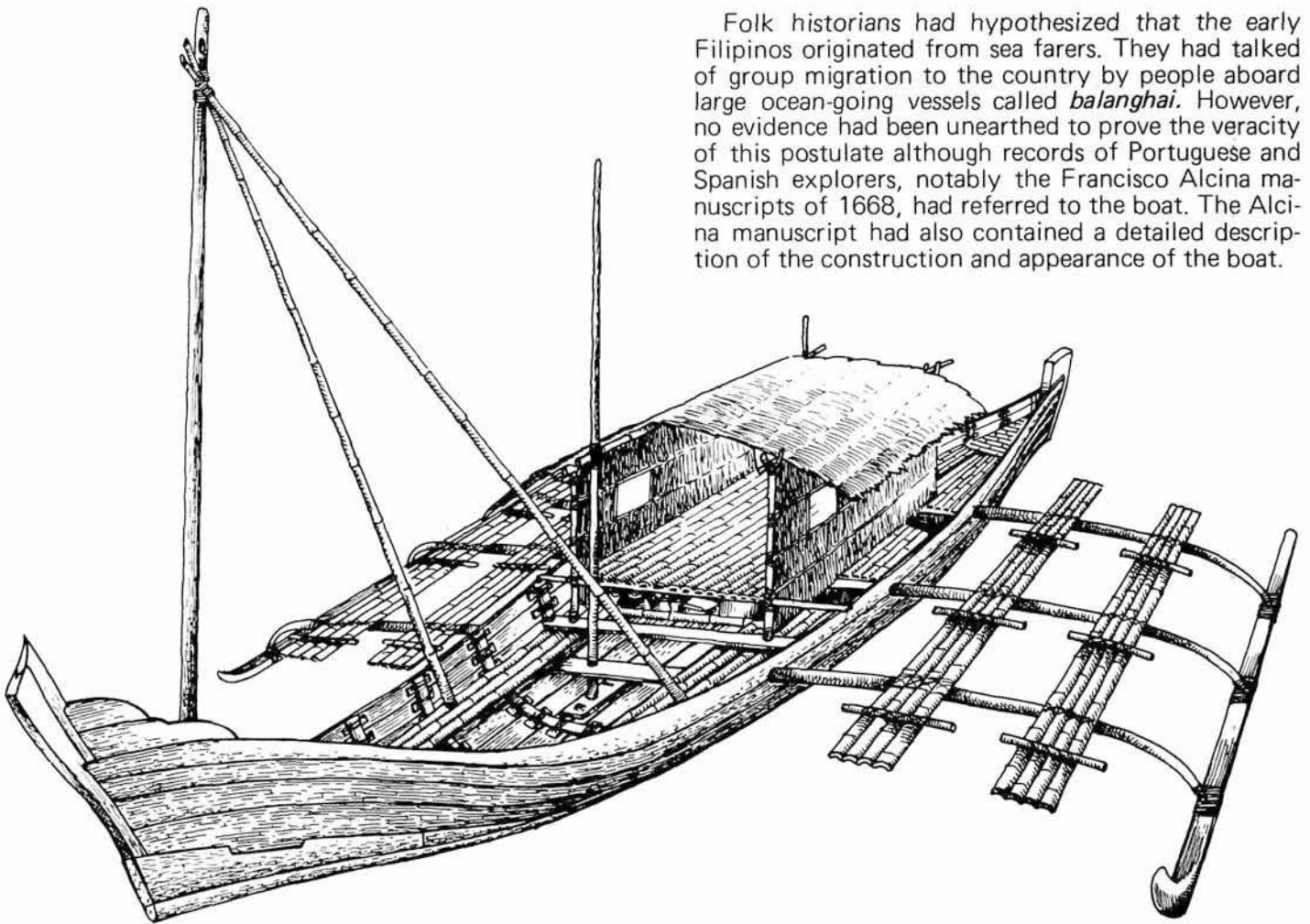


An Abstract

Ancient Mariners of the Philippines

by Jesus Peralta

Folk historians had hypothesized that the early Filipinos originated from sea farers. They had talked of group migration to the country by people aboard large ocean-going vessels called *balanghai*. However, no evidence had been unearthed to prove the veracity of this postulate although records of Portuguese and Spanish explorers, notably the Francisco Alcina manuscripts of 1668, had referred to the boat. The Alcina manuscript had also contained a detailed description of the construction and appearance of the boat.



The original article appeared in the September-October 1980 issue of Archaeology. SPAFA Digest thanks the author, curator of the Anthropology division of the Philippine National Museum, for permission to reprint the illustration of the balanghai.

It was only in the seventies that archaeological evidence was uncovered to confirm the hypothesis. Three *balanghais* were excavated successively near Butuan City and their physical features matched the Alcina description perfectly.

Dating the Artifacts

Since the first *balanghai* was unearthed by pothunters, dating the boat and other artifactual materials like sherds of Yueh ceramics, metallic fragments etc. found in the site posed some problems. The pothunters appropriated many of the artifacts and disturbed the layers of midden surrounding the boat. Luckily, the midden at one end of the boat was untouched. It provided clues on the time sequence of the artifactual materials. Carbon dating showed that the first *balanghai* was 1630 (plus or minus 110) years old while the shell midden layer was dated between A.D. 1310 and 1730. The Yueh wares shreds were of the tenth century. The second boat discovered was 700 years old (plus or minus 90 years).

Preservation Measures

Recovery and conservation of the boats also caused some difficulties. They had been partially resting under water when discovered, so were waterlogged. The National Museum developed the polyethylene glycol (PEG) method of preservation to prevent them from rotting. The first boat was left in the excavation site while the second, the more intact, was brought to Manila for future exhibition. Work on the third boat has been suspended.

Staff Training

Abinon Undergoes C-14 Training

Orlando V. Abinon, head of the Chemistry and Conservation Laboratory of the Philippine National Museum, underwent training on radiocarbon dating at the Australian National University in Canberra on 16 January to 26 March 1981. The training was in line with the plan to establish a radiocarbon dating laboratory in the Philippines to serve not only its archaeological needs but also those of the other Southeast Asian countries.

Abinon's training focused on the transformation of materials to be dated into liquid benzene. This was the most important aspect of the dating process since the accuracy and reliability of the dating depended on the purity of that product. The process involved sample preparation by physical and chemical methods, preparation and collection of carbon dioxide from sample combustion and its conversion to

liquid benzene. He also learned how to calculate the age of the sample. His training done under Mr. Henry Pollach, head of ANU's C-14 Laboratory, covered basic theory and laboratory work.

Recommendations

In his report, Abinon acknowledged that the short training period limited his preparation to be able to install a C-14 laboratory. He, therefore, suggested the employment of an expert radiocarbon dater as consultant in setting up the laboratory. He also stressed the need for developing relationships with other radiocarbon laboratories, especially that of the ANU, and subscribing to relevant publications.

The Australian Development Assistance Bureau provided the grant which enabled Abinon to study in Australia.

Santiago Enrols in Archaeology

Rey Santiago, a museum researcher of the Anthropology Division, Philippine National Museum, participated in a short-term training course in Archaeology held in Paris from December 1980 to May 1981. His studies focused on the typology of paleolithic materials. In this regard, he enrolled in the following courses: "Typologie Lithique, Chronologie du Paléolithique et Préhistoire du Monde Indo-Pacifique" at the Université de Paris I in Sorbonne.

Activities Undertaken

Santiago reported that the training gave him insights on how to develop a system of analyzing the typology of stone materials of the

paleolithic period. He also learned a more efficient, accurate and simple methods and techniques of illustrating stone artifacts. His time was also devoted to the collection of bibliographic materials on the subject. Within the training period, Santiago also had a three-month French Language training in the Centre Audio-Visual de Langues Modernes in Vichy.

Professor Jose Garanger, the Director of the UER D'Art et D'Archéologie of the University, supervised Santiago's training. The course in graphics was conducted in Musée de L'Homme. The French government provided the scholarship to Santiago through the SPAFA.