

All our vessels are rowed from within, these are paddled from without, Spanish and European Colonial Reception of Philippine Indigenous Craft

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Abstract

When the European visitors arrived in the Philippines from the Sixteenth century, they encountered a range of indigenous craft ranging from logboats to plank-built vessels. These boats, especially the plank-built vessels, were built in a very different style to their own. They were particularly interested in the single and double outriggers employed on these craft. The plank-built craft used hand carved strakes rather than sawn timber and were held together by dowels and treenails. The hull strakes were fastened together by the lashed-lug technique or sewn. No metal fastenings were used in the construction. Similar techniques were used throughout Island Southeast Asia. They recognised the maritime skills of the Filipinos and soon used them as crew on their own vessels and as craftsmen to build European-style vessels using local materials. The Spanish noted the suitability of the local vessels in the Philippine environment, due to their speed and ability to cross shallow coral reefs, even though they were largely ineffective in fighting against European vessels. They continued to employ boats built in the local tradition for communications and to suppress maritime raiders from the areas not under colonial control. These vessels continued in this role until replaced by steam vessels in the nineteenth century. This paper will explore the European views on these traditional craft and the way they were utilised and adapted by the Spanish and other European powers.

Keywords: Plank-built vessels, Colonialism, Sail, Paddle, Philippines

Introduction

The first recorded European visit to the Philippines was by Magellan in 1521, whilst in the service of the Spanish crown. This visit was well documented by his chronicler, Pigafetta (1874) (translated by Stanley, 2010). He was immediately impressed with the local plank-built boats he saw, the *balangay*, which he transcribed as *ballanghai*. Pigafetta records “we came upon two long boats, which

they called *ballanghai*, full of men. In the largest of them was the king sitting under an awning of mats” (Stanley, 2010: 76). He also records a conference near Samar “the king... led us under a place covered with canes, where there was a *ballanghai*, that is to say, a boat, eighty feet long or thereabouts, resembling a *fusta*. We sat with the king upon its poop” (Stanley, 2010: 78). The *fusta* was a kind of light galley from this period, used mainly in the Mediterranean, with a single mast, a lateen sail and usually up to 18 oars. The picture below (Fig. 1) is of a Portuguese *fusta*, with 22 oars, from a book by Jan Huygen van Linschoten, a Dutch traveller. Despite this comparison, most commentators of this period were struck by the differences between the Philippine indigenous craft and the European tradition.



Fig. 1 Portuguese fusta from Jan Huygen van Linschoten, 1595

They were particularly interested in the shallow draft, which was necessary to sail over the numerous coral reefs and the use of the double outrigger in order to give lateral stability. The practice of sitting on the outriggers in order to paddle was remarkable and was feasible only in the warm tropical waters of the islands. The Asian lug sail was also a novel approach compared to the square sails or lateen sails to which they were accustomed. The Philippine vessels were part of a larger tradition that was found through much of Indonesia. Therefore many of the comments referred to vessels in the Moluccas or Sulawesi as much as in the Philippines.

The European Colonial Settlement in the Philippines

The main Spanish interest was initially in the Moluccas and in the trade with China and so the colonial regime developed slowly in the Philippines. After a number of exploratory voyages, Miguel López de Legaspi founded the initial settlement at Cebu, which was an established emporium for Chinese and Southeast Asian traders. Fort San Pedro was built there in 1565. A further settlement was built on the island of Panay. In 1571 Legaspi moved the capital to Manila, another established trade emporium. The young colony was threatened by Chinese and Japanese pirates and Moslem raiders from the south, but the main danger was the rivalry with other European colonial powers, particularly the Portuguese and later the Dutch. Few Spanish settlers came to the Philippines, but it proved a fertile opportunity to convert the animist inhabitants to Christianity and the Church maintained a strong grip on the colonial administration (Phelan, 1959).

Indigenous Philippine Craft

Our knowledge for the Philippine craft in the pre-colonial world is limited. The evidence we have is drawn essentially from the accounts of early travellers or colonisers, referred to below. There is little archaeological information available, although this is expanding steadily as new discoveries are made. There is a single archaeological site with preserved vessel hulls, at Butuan in Northern Mindanao (Scott, 1981: 1). There is also some, very limited, iconographic evidence such as the Manunggul Jar, which appears to illustrate a logboat conveying a dead soul to the afterlife. This is one of the most famous prehistoric artefacts from the Philippines, currently in the National Museum in Manila, which was discovered in a cave of the same name in Palawan and has been dated to 800 BC (Dizon and Ronquillo, 2010: 22). The jar is for a secondary burial and the figures on this ceramic show a log boat used to transport the soul. The dead soul is the first figure with crossed arms conveyed by a boatman who is paddling the logboat. The front of the boat is carved with anthropomorphic details of eyes, nose and mouth. The boat appears to have had a pole mast, which is now missing. There is considerable evidence from ethnographic sources that many of the traditional skills and design features have been retained until the present day. The banca remains the standard

small fishing boat and means of local communication throughout the islands (Fig. 2). This is a plank built vessel with double outriggers with many similarities to traditional craft. However there is now a very rapid rate of change as engines have largely replaced sails and paddles to power these vessels.

The vessels observed by the initial visitors fall into two categories; logboats and plank-built boats. An intermediate category was the log boat expanded by the addition of washboards or strakes of wood or rattan to increase freeboard and make the boats more seaworthy. The logboats were more familiar to the visitors as they follow closely examples



Fig. 2 Modern banca. (M. R. Stead)

from other parts of the world including the Americas, Africa and Europe. The plank-built boats were more exotic in that they were constructed of hand carved planks rather than sawn timber. The hulls were fastened together using dowels recessed in the planks and lashings to the ribs. There were no nails in these vessels at all. It was these plank-built vessels that generated most comment. They were perceived to be very insubstantial for maritime voyages. There are extensive European textual descriptions from the sixteenth century and later years. The Spanish sources are most extensive, but are supplemented by a range of accounts from other European visitors in English, Portuguese and Dutch. The Tagalog/Spanish dictionary of Pedro de Buenaventura, *Vocabulario de La Lengua Tagala, el romance castellano presto primero* (Vocabulary of the Tagalog language with Castillian Romance given first) published in 1613 is particularly valuable. It lists sixteen types of boats from the log boats, *bilog* and *bawoto*, to the plank-built boats, the *balangay*, *kopit*, *birok* and *biroko*. Many words for nautical activities and boat equipment are included. These are, of course, just the Tagalog names and the dictionary does not include the

names in Visayan or other Philippine dialects. However there are other dictionaries for those areas, such as the later *Diccionario Español-Bisaya para las provincias de Samar y Leyte* (De la Rosa-Alcázar, 1914).

Accounts by Europeans who had sailed vessels built in the local tradition, or had even constructed such craft, are particularly valuable. The most complete guide to the indigenous ships and the shipbuilding techniques used to construct them are contained in Ignacio Francisco Alcina's unpublished text, *Historia de las Islas e Indios de Bisayas* (Alcina 1668: 159-215). He recorded that he had actually built and sailed more than twenty such plank-built boats. He discussed the *balangay*, the *biruk* and the *caracoa*, after stressing that these plank-built boats were all constructed in a similar way. The *biruk* was mostly for carrying cargo and the *balangay* was a general-purpose vessel. The *caracoa* was used for raiding and warfare and built in a style to accommodate a large crew.

Logboats

The logboats are simple dugout vessels cut from large tree trunks. As the Philippine forests were well supplied with large trees suitable to construct such boats then these were the most likely vessels utilised since prehistory for local fishing and communications. A recently discovered example is the logboat found at Rosales in Pangasinan province, northwest Luzon. This is a 7.10 m logboat found in a tributary of the Agno River, one of the largest rivers in Luzon, which drains into the Lingayen Gulf. This has been radiocarbon dated to between 1480 and 1650 AD with a 95% probability (Stead, 2014: 12). Alcina (1668: 197-199) describes the construction process for a logboat in detail and all his technical terms are in Visayan with some use of Iberian terminology. He refers to a logboat as a *balato*. A fresh trunk was felled and stripped to a depth of two fingers. This reflects the experience that the soft outer wood would tend to rot. A centre line (called a *kutur*) was provided to give a guide to the carpenter. The upper part of the trunk was removed by axe or adze, often leaving an upstanding bow and stern. They would carve out the inside leaving protrusions in the wood to support the thwarts (*agar*). The ends would be trimmed into a boat shape.

The most difficult technical issue was to achieve a suitable thickness of wood, so that the boat was robust, but not too heavy, which was achieved by using a gauge or auger called a *lokob*. This would leave trial holes in the timber that would need to be patched carefully. The tools used to excavate were a square adze (*daldag*) and a skewed adze (called a *binkong*). The thwarts had a key role to provide beam strength to the hull, as well as seating for the paddlers and as a basis for lashing on washboards or extension planks. According to Alcina (1668: 167), a typical *baloto* would be up to nine (9) m in length with a beam up to one metre. This represented eight to ten man-day's construction time. These log boats would often be furnished with a single or double outrigger to improve stability. Lateral stability has often been a problem for log boats in any environment and the Philippine solution was very effective. Due to the difficulties of working nets over the side of a log boat, outriggers may be absent or they might be removed for convenience whilst fishing.

Planked Boats

The hulls were constructed with hardwood planks attached to a central keel or a simple centre plank. Sawing technology was not used before the colonial period and the planks were carved by hand, using axes and adzes. Lugs were left carved as protrusions on the inner side of the planks to form transverse rows. The usual method of fixing the planks together was by the use of circular dowels, inserted in the edges of the individual strakes. The size of these dowels was about 3 cm in diameter. The boat was then lashed together using the carved lugs on the inside of the planks and series of ribs. Transverse thwarts were also lashed to the lugs and ribs to create a firm inverted bell-shaped structure.

Balangay

The planked boat, the *balangay*, referred to above in the account of Pigafetta, were very numerous in the pre-colonial period. Antonio de Morga, a senior civil servant in the Spanish service, referred to them in his *Sucesos de las Islas Filipinas* (De Morga, 1609: 190). He describes the *barangays* as "certain quick and light vessels that lie low in the water, put together with little wooden nails. These are as slender at the stern as at the bow and they can hold a number of rowers on both sides". These early accounts indicate that they were general-purpose, cargo-carrying

vessels widely used in inter-island trade. They were propelled by rowers or paddlers and by sail. De Morga also noted the palm leaf awnings or *cayanes*, which gave protection to the boat and the crew from the fierce tropical sun. He noted that the ships would not capsize due to the outriggers and, even if flooded, the bamboo outriggers would prevent the boat from sinking. Alcina (1668: 201-202) described the *barangays* “the lightest that were used and are still being used by these natives here. They are built upon a square keel, adding boards for the side. They are completed with low sides suitable for rowing...” We are in the fortunate position of having a number of *balangay* boats that have been discovered at the Butuan site in Northern Mindanao (Stead and Dizon, 2011: 3). These were buried in silt deposits in the estuary of the Agusan River. A total of twelve hulks or wreck fragments have been reported in total. Three *balangay* vessels have been fully excavated and a further hull is currently being excavated. These correspond closely to the descriptions of these vessels and are between 14 and 20 m long (Stead and Dizon, 2011). Three underwater wrecks in Philippine waters appear to be the remains of such Southeast Asian vessels, although the hull remains are fragmentary. These are the Pandanan wreck and the Lena Shoal Wreck from Palawan, and the Santa Cruz wreck from Zambales (Dizon and Ronquillo, 2010: 201-213) (see Fig. 3 for a photo of a modern replica).



Fig. 3 Replica balangay boat, National Museum, Manila. (P. L. Stead)

The *Caracoa*

The *caracoa* was a military version of the balangay. It was considered larger and faster, and was most suitable for raiding and slave trading. As Retana (cited by Martínez de Zúñiga, 1803: ii, 513) has pointed out, this word does not appear in early Tagalog or Visayan dictionaries, but as the word exists in both Spanish and Portuguese dictionaries, he suggests that this may be a Portuguese rendering of the

Malay root of *corocoro*. The Spanish documents from the colonial period in the Philippines consistently refer to these vessels as the *caracoa*, but in the Moluccas *corocoro* was the more normal name. Blair and Robertson (1904) list 117 references to the *caracoa* in their compendium of sources from the Spanish archives. Alcina (1668: 207) refers to this class of vessel and commented that they were traditional in the Philippines and were widely used in his time. He said “It closely resembles the brigantines of Spain, although (the *caracoa*) is larger in size”. He notes that this is due to the outriggers, paddling seats on the outrigger booms and the fighting platforms, which were features of the *caracoa* (Alcina, 1668: 207). He also gave the opinion that “For these islands they are the best ships or vessels and the most suitable for war fleets. These people used them in ancient times when, as infidels, they went out to plunder other enemy islands”Alcina (1668: 207). He specifically mentions that Spanish authorities continued to construct *caracoa* in the seventeenth century for military use. The rowers and sailors would be Filipinos, but the soldiers would normally be Spanish. The same arrangement can be noted on the Manila galleons that carried many Filipino sailors. He comments that the *caracoa* was a more comfortable means of travel in the Philippines than the Spanish ships due to many being fitted with a thatched palm roof. However, he notes that the Spanish made these vessels heavier and their boats often could not catch the raiding vessels built in the traditional style. These vessels were used for carrying dispatches, defence against pirate attacks from the Sulu Sea and for major assaults on pirate bases. A manuscript, thought to be by Pedro Gutierrez S.J., describes a typical example of the use of the *caracoa* to repulse pirate attacks from the Moslem south (Gutierrez, 1637). This raid was by four Muslim ships and their repulse by Spanish-led *caracoas* is also recorded in Montero y Vidal (1888: 162). William Dampier, the English buccaneer, describes this type of vessel as used by the Sultan in Mindanao as seen in his voyage in the seventeenth century. He describes how the boats were rounded like a half-moon, but with outriggers designed for paddling. He recounts how

“there run a-cross the Out layers two tire of Beams for the Padlers to sit on, on each side of the Vessel. The lower tire of these Beams is not

above a Foot from the Water; so that upon any the least reeling of the Vessel, the Beams are dipt in the Water, and the Men that sit are wet up to their Waste; their Feet seldom escaping the Water. And thus as all our Vessels are rowed from within, these are paddled from without (sic)” (Dampier, 1797: 230).

Current knowledge of the *caracoa* is based mainly upon iconography, such as the representation (Fig. 4) from Thomas Forrest (1779). None of these vessels survive until today and, as yet, there are no identified examples in the archaeological record. Forrest was well acquainted with the *caracoa* as he acquired two small ones, the ‘*Banguay*’ and the ‘*Borneo*’ to assist his *proa* galley in his eighteenth century voyage in Southeast Asia. The ‘*Banguay*’ measured just 18ft (5.5 m) keel length with a beam of 8ft (2.4 m, and carried a crew of 14 men. Forrest (1779: 23) gave a particularly clear description in a footnote to his account of his voyage “a *corocoro* (*caracoa*) is a vessel generally fitted with outriggers, having a high arched stem and stern, like the points of a half moon. They are used by the inhabitants of the Molucca Islands chiefly, and the Dutch have fleets of them at Amboyna, which they employ as guarda costas. They have them from a small size, to above ten tons burthen; and on the cross pieces which support the outriggers are often put fore and aft planks, on which the people sit and paddle, beside those who sit in the vessel on each gunnel. In smooth water they can be paddled very fast, as many hands may be employed in different ranks or rows. They are steered with two *commoodies* (broad paddles), and not with a rudder. When they are high out of the water, they use oars, but on the outriggers they always use paddles.”The *caracoa* were not really a match for a European vessel in a fleet action. When Legaspi took Manila in 1571, there was a sea battle in Manila Bay with twenty or thirty local vessels, mainly *caracoas*. These mounted one or two culverins each. The Spanish defeated this fleet without difficulty (Anon, 1572, Relation of the Conquest of the Island of Luzon). De Morga took two *caracoas* in his fleet when he sailed out against the Dutch under Van Noort in 1600. They could not keep up with the European style ships due to the choppy sea and adverse winds (de Morga, 1609: 177). It was reported that *caracoas* were used by the Spanish against the Maranao tribes around Lake Lanao



Fig. 4 Illustration of a caracoa (corocoro). (Reproduced from Forrest, 1779: plate 12)

used in Filipinas, carrying from fifty to a hundred rowers apiece. There are larger ones called *juangas*, and carry from one hundred and twenty to one hundred and thirty rowers (sic)” (de Bobadilla, 1639). Paris (1841: 91, 92) describes one of these vessels as observed in the Moluccas, drawing on information from the voyages of Pagès (1782). He refers to this vessel in French as a *buanga*. His drawing shows a total 74 rowers on each side in three banks, rather similar to a classical Roman trireme, but with a further 18 paddlers on the outrigger platform. Taking the two sides together this would give a total of 184 crew, engaged primarily in powering the vessel. The *joanga* and *caracoa* remained in service into the nineteenth century for raiding and piracy in the whole of Southeast Asia from bases in the Sulu Sea area. However, the outriggers were eventually discarded and the vessels came to have heavier lines and a broader beam. This may reflect the need to carry heavier guns. Eventually, they were defeated when the Spanish and British and Dutch navies

in Mindanao in 1639, by transporting them overland as components and reassembling them at the lake (Scott, 1981: 10). The *joanga* was a larger size version of the *caracoa* and typical of the Moluccas, Mindanao and the Sulu Sea. A description of the *joanga*, or *juanga*, is contained in a paper by de Bobadilla which describes an action in 1638, “they were all embarked in a

fleet of *caracoas*, which are oared vessels much

brought in steam powered naval units (Warren, 1981: 256-258). One of the last voyages recorded in a *caracoa* was by the famous naturalist, Wallace, in 1859, when he rode on a Dutch government-owned vessel from Bacan to Ternate in the Moluccas. This boat was of four (4) tons burthen, with twenty rowers (rather than paddlers), a thatched canopy, a low freeboard, and double outriggers at five (5) feet either side of the hull. There was a tripod mast and a mat sail. He complained about the constant drumming, used to keep the rowers in time (Wallace, 1869: 358).

Conclusion

We are indebted to the early Spanish explorers and colonialists, and travelers from many nationalities for most of the information we have on the indigenous Philippine boats. Hopefully the progress of maritime archaeology in the area will continue to supplement these early sources.

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Biography

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