

Understanding the Interactions Between the Sea and Humans Through an Anthropological Study of Wooden Boatbuilding in Indonesia

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Abstract

This paper fits best within Session 3 because the topic, which is the anthropological study of wooden boatbuilding today, will provide a specific ethnographic case to understand the interactions between the seas and humans in a contemporary local context. The case study under consideration is the wooden boatbuilding in the Konjo region of South Sulawesi, Indonesia, where the local knowledge and skills have been inherited by the present generation. This study mainly employs data collection based on anthropological fieldwork done by the author in 2019 and 2022, including observations and interviews in the shipwright community in the region, to examine the unique and universal aspects of the way of life with/by the sea. The study explores how people's skills, philosophy, and social relations are shaped through boatbuilding. The Konjo people have used local resources and developed their knowledge and skills to make seaworthy vehicles. The construction process has been symbolized as human procreation. Boatbuilding also illustrates the working networks of boatbuilders. This case indicates that boats are not just a means of transportation but also a microcosm of the interaction linking people to the sea.

Keywords: wooden boat building, indigenous knowledge, maritime culture, Indonesia

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1. INTRODUCTION

The topic of this paper is best within Session 3 because this anthropological study of wooden boatbuilding in Indonesia can provide a specific case in this session for examining the interactions between the sea and people from a local context. From the perspective of 'how the sea shapes human society', this paper examines how people's skills, philosophy, and social relations are formed through the practice of boatbuilding, which is directly related to the sea.

As historian Anthony Reid has demonstrated that Southeast Asia has a long history of development as a centre of the global commerce (Reid 1988); in Indonesia, which was a part of this historical arena, the 'sea' is still a major social space today, and the sea-crossing 'boats' are also an integral part of people's lives there (cf. Horridge 1986). In many parts of Southeast Asia, boatbuilding is more than just a technical task. It is a matter that can be related to procreation and the birth of a child.

The boatbuilding process often involves various rituals, and the boat may have decorations and designs that are not necessarily practical. Nor are boats of the same type built in a standardized size. Each boat is supposed to be in harmony with the size of the owner's body. It is also important to maintain a good relationship between shipowners and boatbuilders as well as among boatbuilders, otherwise misfortune would occur during the voyage (Horridge 1986; Lapien 1997; Myojo 2021). Thus, boatbuilding illustrates the various practices and creativity of people living with such a natural environment of the sea. In other words, the sea is not only a natural realm but also a social space that shapes people's technical and ritual practices as well as communication.

In Japanese studies of Southeast Asia, many researchers also consider the sea and coastal geographic space as a social realm to be analysed. Mainly, they have discussed the fluid characteristics of the social relations commonly seen in the maritime world of Southeast Asia. For example, Narifumi Tachimoto, who studies the Malay world, pointed out the network type of social relations as one of the features of maritime society. Such a network-type society is based on interpersonalism, which values individual

relationships on a personal level (Tachimoto [Maeda] 1997, 199; cf. 1975). Chie Nakane argued that groups of people without clear boundaries are often seen in many Southeast Asian societies. She suggested that one of the elements in determining their social relations could be an interpersonal-oriented relationship (Nakane 1987, 282–312). The subsequent studies have demonstrated the maritime network societies through various cases, such as fishery communities and sea traders (cf. Kitamado 2000; Seki 2007; Nagatsu 2019; Ono 2011). In addition to the technical practices and philosophical features of the rituals in boatbuilding, this case study will also examine the working network of boatbuilders to demonstrate the characteristics of social relations in a maritime society that previous studies have pointed out. Therefore, this paper aims to present a way of living with/by the sea from three aspects: technical, philosophical, and social relations.

2. CASE STUDY: WOODEN BOATS AND BOATBUILDING IN SOUTH SULAWESI

The case study under consideration is the wooden boatbuilding in the Konjo region of South Sulawesi, Indonesia, as an example for considering the relationship between the sea and people through boats. The Bugis-Makassar people, the majority ethnic groups in South Sulawesi, have been engaged in seafaring and maritime activities such as navigation, fishing, and shipbuilding for several centuries since the area was historically located at a strategic point to the Eastern Spice Islands. The wooden boats they have built and continue to use are not just a means of economic activity but have become a symbol of today's South Sulawesi society and of Indonesia as a maritime nation. For example, the local government logo depicts a wooden sailing boat; the *pinisi*, one of the traditional sailing ships in South Sulawesi, was inscribed on the United Nations Educational, Scientific and Cultural Organization (UNESCO) list of intangible cultural heritage in 2017 (UNESCO 2017).

In particular, the Konjo region in the Bira Peninsula, located in the southeastern tip of South Sulawesi, is known as the largest boatbuilding area (Figure 1). This paper examines the entanglements in the maritime community by showing the technical and philosophical characteristics of boatbuilding and the social characteristics of the boatbuilders in Konjo based on anthropological research. The Konjo region is situated by the Selayar Strait on the sea route to eastern Indonesia. According to Nishi and Osozawa, who investigated the timber used for wooden boats in the region, one of the factors that contributed to the development of the boatbuilding industry was the abundant availability of high-quality, water- and insect-resistant timber, known as *bitti* (*Vitex cofassus*), in the Konjo area and surrounding islands (Nishi 1998; Osozawa 1999).

Today, the main boatbuilding area in Konjo is the western coastal area known as Tanahberu (Figure 2). There are shipyards called *bantilang* along roughly two kilometres of coastline; as of 2019, there were approximately 25 shipyards in this area, with 40 to 50 wooden vessels being built. Half of these were boats used for fishing, for instance, purse seining in the local surrounding waters, while the other half

were tourist cruisers used for diving and sailing around Komodo Island and other tourist destinations (Myojo 2021).

Konjo wooden boats, even relatively large boats of several hundred tonnes, are built by hand by boatbuilders one by one. Although electric carpentry tools such as chainsaws and electric drills are widely used today, the shaping of the hull parts and their assembly are still done by hand. This manual Konjo boatbuilding can be characterised both technically and philosophically. The technical aspect is the plank-first method, where the hull is built from the outside, and the process traditionally does not require blueprints. The philosophical aspect entails viewing boatbuilding as a human birth process. The next section will present these characteristics in more detail, showing the boatbuilding process.

3. RESOURCES: BOATBUILDING AND BOATBUILDERS IN KONJO

3.1 The process of boatbuilding

This section provides an overview of boatbuilding flows in Konjo based on fieldwork conducted intermittently between 2019 and 2022 and a filed report (Myojo 2020). The resources available for this research have been extracted from participant observation and interviews in the boatbuilder communities in Tanahberu. In general, the process can be roughly divided into seven stages. The following section describes three of those stages, the start of construction, the building of the hull, and the launching of the boat, which are technically and philosophically distinct.

3.1.1 Commencement of construction

In the past, the first job of a boatbuilder was to find suitable timber in the forests. However, this paper regards setting a keel part as the first process given that nowadays they purchase the timber since the division of labour between boatbuilders and timber merchants/sawmills has been differentiated. Moreover, setting the keel was traditionally considered essential in determining the boat's fortunes.

While the length of the keel is now determined by a technically rational decision using a measuring tool, it was conventionally determined through a ritualistic procedure involving fortune-telling. This played a role in adjusting the keel to the best length for the boat's fortune. It is assumed that the practice was necessary when building fishing and cargo vessels, which were directly affected by fish catches and profits. According to the interviews with elderly boatbuilders and previous research up to around the 1980s, the fortune-telling of the keel was summarised as follows.

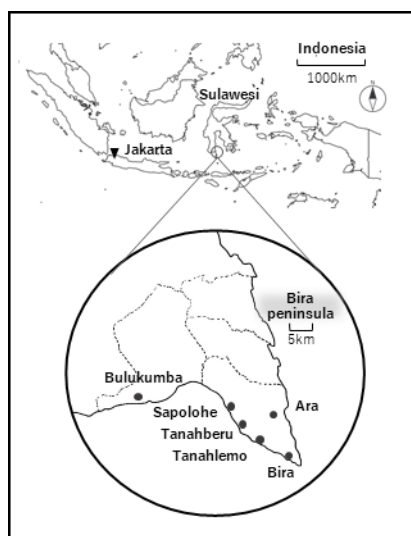


Figure 1. Map of the Bira Peninsula
(Created by the author)



Figure 2. Photo of boatyards on the Tanahberu coastline
(taken by the author in 2022)

When the size of a boat is determined to some extent according to the boatowner's request, the approximate length of the keel is calculated based on the experience of the master boatbuilder. Once the length of the keel is roughly determined, fortune-telling is performed to know whether the length is good or bad luck (Figure 3). The general way of fortune-telling is firstly to set a section whose width is decided according to the size of the owner's hand (from the wrist to the tip of the middle finger). Then, a set of five sections, each section having its meaning. The keel is marked by the sets repeatedly in order from edge to edge. When the keel is measured with the sets, the boatbuilders and boatowner see which section comes to the end of the initially planned length. The section at the keel's edge is to tell that boat's fortune. For example, if the keel ends at the third section, then the length of the keel is considered unlucky. In such a case, the length of the keel is shortened for one section to make it the final length of the keel, with the section having good meaning. Or, if it ends in the fourth section, the length of the keel could be added for two sections so that it ends on the first plot with another good meaning.

3.1.2 Building the outer shell

After the keel is in place, the boatbuilder can start joining wooden planks to make the hull. This plank jointing consists of five steps: (1) selecting a wooden piece, (2) making a pair of a joint, (3) adjusting, (4) nailing the plank, and (5) shaving. In this process, relatively short planks are joined together to create a three-dimensional curved surface of the hull. The joint surfaces are adjusted parallel with a tool called a *sinkolo* (Figure 4), a flat steel tool with a 10-centimetre-long, two-parted tip used to draw parallel lines, like a compass or divider. The planks can be made to fit closely together by using the *sinkolo* to draw a line parallel to the edge of a newly installed plank (by copying the shape of the edge of one plank onto the edge of the other plank). Instead of using a straight ruler, the unique tool enables one to draw parallel lines according to the curve and distortion of the plank.

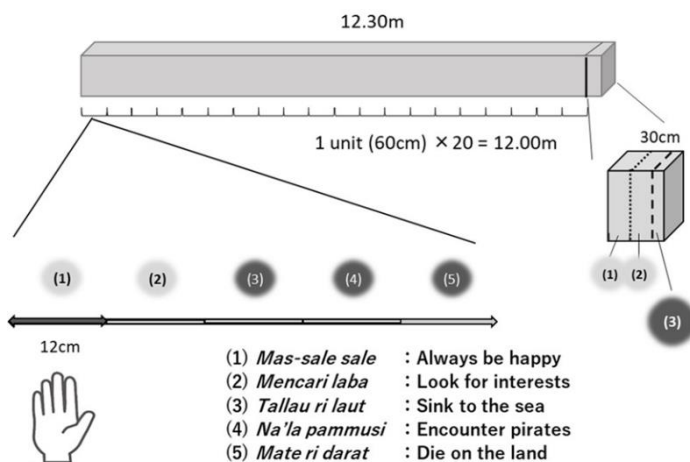


Figure 3. Image of traditional fortune-telling of boat (created by the author)



Figure 4. Photo of *sinkolo* liners (taken by the author)

3.1.3 Launching

Once the hull is completed, the boat is pushed out or pulled from the sea using human resources or pulleys to launch it. The work is a simple matter of pushing the vessel out of the water. However, for a Konjo wooden boat, the launching is as symbolically important as the setting of the keel. The launching ceremony called the *acara annyorong lopi* indicates more than just a wish for the boat's safety. The most vital role of the launching ritual is described as 'giving life to the boat'. A navel/belly button (*posi lopi*) is made in the middle of the keel when the hull is completed and the boat is ready to go to sea. In this ceremony, usually an elderly boatbuilder leading the ritual prays for the safety of the launch in the name of Allah. Then, a hole is made with a drill to create a navel about two cm in diameter and five cm deep. The wooden boat, thus 'given life', is then launched into the sea manually. This ritual practice represents a philosophy linking boatbuilding to human birth.

3.2 The boatbuilder's way of work

As these processes show, boatbuilding in the Konjo region is technically and philosophically characterised. In addition, the boatbuilders also have social characteristics in their way of work. Generally, the employer/manager, called *punggawa*, who has the capital, such as land for the shipyard and financial resources, gathers workers called *sawi* each time the *punggawa* receives an order. Therefore, most boatbuilders in Konjo are not permanently employed by a particular workshop but work fluidly, moving from one workshop to another for the next job when one project is finished. For example, a mature boatbuilder A, I first met in Tanahberu in 2019, had worked under *punggawa* X for about four months. When I revisited Tanahberu in May 2022, he was working under another *punggawa* Y. Indeed, some boatbuilders who work on large boats that take more than a year to finish or work in large workshops building several boats may work under the same *punggawa* for an extended period. However, most boatbuilders, like A, move between workshops every three to five months. This fluid working style based on a non-fixed employment relationship is one of the social characteristics of Konjo boatbuilders.

4. RESULTS: INTERACTION BETWEEN THE SEA AND PEOPLE FROM THE PERSPECTIVE OF BOATBUILDING

The first aspect is that the sea, an environment different from land, has developed the technology for Konjo boatbuilding. A physically important aspect of wooden boatbuilding is to make balanced three-dimensional curved rather than linear components like a house. The local timber of *bitti*, which has traditionally been used in Konjo boatbuilding, has a characteristic that makes it difficult to form long straight timbers with many bends. Thus, in Konjo boatbuilding using *bitti*, relatively short pieces are formed and put together like a puzzle. In this process, the combination of planks with *sinkolo* is crucial. The tool enables the boatbuilders to form and assemble planks even using irregular wooden pieces. Through making boats the people have developed their skills and knowledge for using local resources.

Perils at the sea are such extraordinary nature and power that cause the risk of loss and damage to life and property. The second aspect that shapes people's worldviews and ritual practices is to pacify the mind by way of fortune-telling at the beginning of construction. This has been put into a framework of traditional cosmology for explaining and understanding the uncertainties, such as changeable weather, catches and the conditions of the voyage. Having the navel of the boat as a parallel to the human birth process is a way to analogise the centre of their microcosmos. Similarly, the house and the region (land) also have a 'navel', as in the expressions *posi bola* and *posi tanah*, respectively. It indicates that traditionally, the boat was as crucial to the Bugis-Makassar people as the human body and the house as one of the components of their cosmology.

A third aspect is that the vagueness of the boundaries of the sea can also be seen in the fluid social characteristics of boatbuilders. As noted in the first section of this paper, previous studies on maritime societies in Southeast Asia indicate the mobility of people. In such a society, networks based on interpersonal relationships tend to be valued rather than communities with clear boundaries (Nakane 1987, 282–312; Tachimoto 1996). These characteristics of the maritime societies in Southeast Asia are thought to have non-fixed patron-client relationships and fluid mobility. The social relations of people who live with the sea could be influenced by the sea, in which the boundaries are invisible and fluid.

5. CONCLUSION

The wooden boatbuilding in the Konjo region is not just an economic activity. As both a natural and social realm, the sea is one of the key elements shaping human technology, philosophy, and social relations. The 'uncertainty' of the sea especially indicates that humans can never control it completely. The Konjo boats are an example of how people have responded to such nature of the sea. Technically, the boatbuilding shows how people have used their resources (in this case, timber), and philosophically,

it demonstrates the cosmology and ritual practices that may come from fear – or expectation – towards the sea. It can also be seen as a representation of social dynamics, such as the mobility of people.

However, the technologies, philosophical elements, and social characteristics listed here are not always common to all maritime worlds and people living with the sea. The sea has a single nature in terms of connecting the world, however, it also has a plurality that shapes various social realms. The people who live with it have diverse skills, knowledge, social relationships, and ways of life. In the recent global movement toward sustainable community development, we tend to think that global issues such as resource management and climate change should be addressed based on internationally standardized assessment criteria. However, as the shipbuilding of Konjo shows, the way of living with the sea is not simple but complex and diverse, depending on the natural environment and social conditions. In light of this, we cannot simply force international standards and ideals on all kinds of communities in general. On the one hand, global development goals are necessary to convey and share a common sense of crisis. Yet, on the other hand, we also need to take into account the local contexts of environment, traditions, and social systems, as well as people's lives in each region and country, in order to discuss, develop, and formulate policies for sustainable development with various ethnographic cases.

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